

The logo for EMMBC 2015 MILANO. 'EMMBC' is in red, with the 'M's stylized as a bar chart. '2015' is in grey, with a Vitruvian Man figure inside the zero. 'MILANO' is in green.

EMMBC 2015 MILANO

*August 25-29th 2015
Milano, Italy*

Program Book

37th Annual International Conference of the
IEEE Engineering in Medicine and Biology Society
*Biomedical Engineering : a Bridge to improve the
Quality of Health Care and the Quality of Life*



Final Program

37th Annual International Conference of the IEEE
Engineering in Medicine and Biology Society



25 – 29 August 2015

Milano, Italy

Conference Chairs

Sergio Cerutti

Paolo Bonato

Program Chairs

Nigel Lovell

Luca Mainardi



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Table of Contents

Partnership Acknowledgements	iv
Welcome	v
General Information	viii
Student and EMB Society Activities	ix
Organizing Committee	xi
Program Themes and Chairs	xiv
Minisymposia, Invited & Special Sessions	xvi
Conference Editorial Board	xxiii
Editor's Note	xxxiv
Keynote Lectures	xxxv
Special Symposium on Grand Challenges on Brain Research in Europe & USA	xlvi
Special Symposium on Frontiers of Biomedical Engineering	xlvii
Daily Program	xlviii
Session Code Explanation	lxix
Program in Chronological Order	1
EMBS Awards & EMBC Student Paper Competition Finalists	149
IEEE Fellows	159
IEEE EMB Conference Call for Papers	154
Author Index	163
Advertisements	241
MiCo Floorplans	243

Partnership Acknowledgements

Platinum Level Partners



Gold Level Partners



Silver Level Partner





President's WELCOME MESSAGE



Andrew Laine
2015-2016 EMBS President
president@embs.org

It is my great pleasure to welcome you to the 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS). Our Annual Conference (known as EMBC) is a premier international conference in biomedical engineering, and has been strategically held in different locations around the world, including Chicago, Osaka, San Diego, Boston, Buenos Aires, Minneapolis, Vancouver, Lyon, New York, and Shanghai over the last 10 years.

This year's meeting is being held in Italy, in the wonderful city of Milan, with the theme "Biomedical Engineering: A bridge to improve the quality of health care and the quality of life." Under the leadership of Drs. Sergio Cerutti, Politecnico di Milano, Italy, and Paolo Bonato, Harvard Medical School, USA (Conference Chairs) and Nigel Lovell with the University of New South Wales, Australia and Luca Mainardi with Politecnico di Milano, Italy (Program Chairs) the organizing committee has developed an exciting inter-disciplinary program. This program includes tutorial courses offering; panel sessions discussing important biomedical engineering issues with academic researchers, clinicians, and research and development engineers; and lunchtime sessions to further promote students into the field of biomedical engineering. The organizers have also successfully recruited an all-star roster of keynote speakers, who are leaders and pioneers within their respective fields from around the world.

The continued growth of our meeting is an indication of its high quality and impact. This year, we received over 3,800 submissions. All the submitted contributed papers were subject to peer review by the EMBS Conference Editorial Board (CEB), consisting of an international panel of experts, covering all areas of biomedical engineering. Special thanks go to, Jim Patton, Editor-in-Chief of the CEB, all the editors and reviewers of the CEB, and all the staff of the EMBS Executive Office (Laura Wolf, Jessica Lotito, and Janice Sandler) for their outstanding service and contributions toward making this meeting possible.

EMBS continues to strive to provide a unique, effective platform for biomedical engineers to publish, present their research, network with industry, and to advance their professional careers. The next two EMBS Annual Conferences will be held in Orlando, Florida (August, 2016) and Jeju Island, South Korea (July, 2017). We look forward to your participation at these and other EMBS future conferences (www.embs.org).

Again, welcome to EMBC'15. I appreciate your participation and hope you will find this meeting both intellectually stimulating / rewarding and enjoyable.



Welcome Message from the Organizing Committee

On behalf of the EMBC'15 Organizing Committee, it is our pleasure to welcome you to the 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society to be held at the **MiCo Center**, Milano Congressi Center, Milano, Italy, August 25th -29th, 2015. EMBC is one of the world's largest and most comprehensive technical conferences with focus on biomedical engineering and its medical applications. Under the overall theme of "Biomedical Engineering: a Bridge to Improve the Quality of Health Care and the Quality of Life", EMBC'15 covers a wide range of topics, from cutting-edge biomedical and healthcare technology to biomedical education, from clinical applications of bioengineering technologies to new approaches to achieve and maintain a "wellness" status by relying upon mobile health systems. The Conference is organized into 12 thematic areas:

- Biomedical signal processing
- Biomedical imaging and image processing
- Bioinstrumentation, biosensors, and bio-micro/nano technologies
- Bioinformatics & computational biology, systems biology, and modeling methodologies
- Cardiovascular and respiratory systems engineering
- Neural engineering and rehabilitation engineering
- Tissue engineering and biomaterials
- Biomechanics and biorobotics
- Therapeutic systems, devices & technologies, and clinical engineering
- Healthcare information systems, and telemedicine
- Biomedical engineering education
- Technologies for active ageing and wellbeing

The scientific program of the Conference will start on August 26th following one day of workshops and tutorials. The first two invited keynote lectures will be delivered on August 26th. The first will be given by **Dr Richard Frackowiak**, Director of the Department of Clinical Neuroscience, Head of Service of Neurology, CHUV University Hospital and Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland, on the topic: *"Human Brain Project - the Challenge for Medicine"*. This keynote lecture will be followed by a second keynote lecture given by **Dr Kamil Ugurbil**, Director of the Center for Magnetic Resonance Research (CMRR), McKnight Presidential Chair Professor, Departments of Radiology, Neurosciences and Medicine, University of Minnesota, Minneapolis, MN, USA, on the topic: *"The Challenge of Understanding Human Brain Function: The Role of Imaging in the BRAIN Project"*. It will be a unique opportunity to hearing from two outstanding scientists with focus on brain research their view on the philosophy and motivations underlying the two most important public funding initiatives dedicated to brain research in the USA and Europe, respectively. These lectures will be followed by a mini-symposium with the participation of discussants and the keynote speakers. During the same day (August 26th), another outstanding lecture will be delivered by **Dr. Domenico Laurenza**, bgC3, Kirkland-Seattle, USA and Museo Galileo, Firenze, Italy, on the very original topic of *"Machines and Microcosms. Leonardo on the Human Body"*. The lecture will offer considerations on Leonardo da Vinci, as an artist and a scientist. The following day of the Conference (August 27th) will be marked by three keynote lectures that will be given by **Dr Serge Bernasconi**, Chief Executive Officer - MedTech Europe, Eucomed, EDMA, Brussels, Belgium, on the topic: *"The new requirements to fully leverage the full value of the medical device industry for patients, health care professionals and health care systems"*, by **Dr Claudio Cobelli**, Department of Information Engineering, University of Padova, Italy, on the topic: *"Artificial*

pancreas: models, signals and control” and by **Dr Viola Vogel**, Director of the Laboratory of Applied Mechanobiology, Department of Health Sciences and Technology, ETH Zurich, Switzerland, on the topic: “*Mechanical aspects in the fight of immune cells with bacterial infections*”. During the third day of the Conference (August 28th), **Dr Peter Wintlev-Jensen**, Deputy Head of Unit, Digital Social Platforms, DG CONNECT, European Commission, Brussels, Belgium, will give a keynote lecture on the topic: “*EU strategy on ICT for ageing well*” and **Dr Andrew D. McCulloch**, Professor of Bioengineering and Medicine, University of California, San Diego, CA, USA, will give a keynote lecture on the topic: “*Multi-scale image-based modeling of the failing heart: from cell to patient*”. The last day of the Conference (August 29th) will be marked by two outstanding keynote lectures that will be given by **Dr Paolo Dario**, Scuola Superiore Sant’Anna, Pisa, Italy, on the topic: “*Bionics engineering: achievements and challenges*” and by **Dr Elisabeth Worthey**, Director of Genomic Informatics, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA, on the topic: “*Transformation of big data into clinically actionable knowledge: supporting the personalized medicine revolution*”. In addition to these high-profile keynote lectures, **EMBC’15 will also feature minisymposia, invited sessions, oral and poster sessions, educational sessions for students & young professionals, and exhibitions in over 170 sessions.**

We hope that you will be able to attend many of these exciting presentations and have stimulating discussions with your international colleagues, while enjoying the beautiful city of Milano, considered by the New York Times in 2015 as the best place to visit in the world. Among other things that you might consider visiting in Milano, we would like to bring to your attention the World Exposition (Expo2015) dedicated to the Themes of “Feeding the Planet & Energy for Life”. We hope that you will find the time to visit the Expo2015 and many other beautiful sites in Milano.

We would like to take this opportunity to thank all the members of the organizing committee, all the authors, all the reviewers, and all the local volunteers for their effort and valuable support to make EMBC’15 a reality. Special thanks go to the EMBS staff (Jessica Lotito, Janice Sandler, Laura Wolf and Lukrecija LeLong -MCE) for their outstanding service.

Once again, welcome to EMBC’15 and welcome to Milano!



Sergio Cerutti
Conference Chair



Paolo Bonato
Conference Chair



Nigel Lovell
Program Chair



Luca T Mainardi
Program Chair

General Conference Information

Registration

Registration is located in the **Level 1- South Wing Registration** area of the MiCo Center and will be open Tuesday, 25th August through Saturday, 29th August. Staff will be able to assist you during the following time schedule.

Tuesday	07:00 – 17:00
Wednesday	07:00 – 20:30
Thursday & Friday	07:30 – 18:00
Saturday	07:00 – 12:00

Attendees must wear their badges at all times to gain access to the conference.

Tickets for companions can be purchased at the registration desk. Tickets must be purchased for companions to enter any social event.

Exhibits

Exhibits will be located in the **Gold** room at the MiCo Center. Exhibits will be open Wednesday, 26th August through Friday, 28th August.

Wednesday – Friday	09:00 – 17:00
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Exhibitor Set-Up

Tuesday, 25 th August	10:00 – 17:00
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Exhibitor Tear-Down

Friday, 28 th August	17:00 – 19:00
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Internet Café

Internet access will be available Tuesday – Friday, 08:00 – 19:00 and Saturday 08:00 – 12:00 in the **Amber Foyer** of the MiCo Center. Sessions are limited to 10 minutes.

WiFi

Will be available through-out the EMBC meeting space & Exhibit Hall for the duration of the conference.

Username: EMBC **Password:** EMBC2015

Instructions for Authors

Poster Presentations

Tape will be provided to attach your posters to your assigned posterboard.

Your poster must be posted before the time of your presentation and removed after your scheduled poster presentation of that day. If your poster is left behind, it will be discarded.

Slide or Oral Presentations

A video projector will be available in each room and will be connected to a computer supporting resolution up to 1024x728. Please upload your presentation to the centralized system in the speaker ready room **Suite 1** at least 2 hours prior to your talk. It is the responsibility of the presenting author to load the presentation ahead of time and test it to ensure the presentation will be viewed properly.

Author No Show Policy

EMBS enforces a “no show” policy. Any accepted paper included in the final program is expected to have at least one author attend and present the paper at the conference. Authors of the accepted papers included in the final program who do not attend the Conference will be subscribed to a “No Show List”, compiled by the Society. The “no-show” papers will be removed from the Master DVD and noted as “Author unavailable for presentation” prior to submitting to IEEE for inclusion in Xplore. The “No Show List” will be available to all EMBS conference organizers, who can reject submissions from these authors in the following two years, based on their past negative impact on an EMBS conference.

Student, WIE and EMB Society Activities

Wednesday, 26 August

08:30-10:00	Student Paper Competition I	Suite 7
11:30-13:00	Student Paper Competition II	Suite 7
15:30-17:00	Student Paper Competition III	Suite 7
12:30- 14:30	Lunch with Leaders I, Registration Required Supported by EMB Member and Student Activities Committee	Panorama Lounge
11:30-13:00	The Network Effect-How Networks Really Work (<i>additional Registration Fee Required</i>)	Suite 8
15:30-17:00	The Network Effect-How Networks Really Work (<i>additional Registration Fee Required</i>)	Suite 8

Thursday, 27 August

08:30-10:00	PowerPoint/Poster Clinic Workshop: Tips on Effective Presentation Design and Delivery	Brown 1
12:30- 14:30	Lunch with Leaders II, <i>Registration Required</i> <i>Supported by EMB Member and Student Activities Committee</i>	Panorama Lounge
14:30-16:00	Workshop on Technical Activities Volunteer Training I	Suite 5
17:30-19:00	Workshop on Technical Activities Volunteer Training II	Suite 5
14:30-16:00	The Role of Engineering and Medicine in Life Science Technologies	Suite 8

Friday, 28 August

08:30-10:00	Technical Writing Workshop: Getting Published in Biomedical Engineering Journals	White 1
12:30- 14:30	Lunch with Leaders III, <i>Registration Required</i> <i>Supported by EMB Member and Student Activities Committee</i>	Panorama Lounge
12:45-14:15	WIE Luncheon & Minisymposium Registration Required Supported by EMBS and Women In Engineering, IEEE	Suite 9
12:45-14:15	Introduction to EMBS Summer Schools	White 1
12:45-14:15	Special Session: Learning How to Learn	Amber 8
16:00-17:30	Meet the Editors of EMBS Publications	White 1
17:30 -19:00	EMBS Chapter and Club Development Open to the EMBS membership-at-large	Brown 1
19:00-21:00	IEEE EMBS Young Professionals & Student Networking Reception, Registration Required All undergraduate, graduate and Young Professionals attending EMBC'15 are invited to network over snacks and refreshments. Supported by EMB Young Professionals Student Activities Committee	Panorama Lounge

Saturday, 29 August

08:30 -10:00	Applying for, Negotiating & Embracing Your First BME Position (Academia, Private Sector, and Government)	Amber 8
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The Engineering in Medicine and Biology Society of the IEEE advances the application of engineering sciences and technology to medicine and biology, promotes the profession, and provides global leadership for the benefit of its members and humanity by disseminating knowledge, setting standards, fostering professional development, and recognizing excellence.



The EMBS field of interest is the development and application of engineering concepts and methods to biology, medicine and health sciences to provide effective solutions to biological, medical and healthcare problems. The field encompasses the development of mathematical theories, physical, biological and chemical principles, computational models and algorithms, devices and systems for clinical, industrial and educational applications.

Engineering in Medicine and Biology Society

445 Hoes Lane
Piscataway, New Jersey, USA 08854
Telephone: +1 732 981 3433
Facsimile: +1 732 465 6435
E-mail: emb-exec@ieee.org
www.embs.org

PUBLICATIONS

IEEE PULSE: A Magazine of the IEEE Engineering
in Medicine and Biology Society
Transactions on Biomedical Engineering
Journal of Biomedical Health and Informatics
Transactions on Neural Systems and
Rehabilitation Engineering
Transactions on Medical Imaging
Transactions on NanoBioscience

Transactions on Computational Biology and Bioinformatics
Transactions on Biomedical Circuits and Systems
Reviews on Biomedical Engineering
IEEE Journal on Translational Engineering in
Health & Medicine
 IEEE Transaction on Computational Imaging
 IEEE Lifesciences Letters

ELECTRONIC PRODUCTS

EMBS Electronic Resource

CONFERENCES

Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)
IEEE EMBS Special Topic Conference on Neural Engineering (NER)
International Symposium on Biomedical Imaging (ISBI)
International Conference on Biomedical Robotics and Biomechatronics (BIOROB)
International Conference on Rehabilitation Robotics (ICORR)
Healthcare Innovation and Point of Care Technologies Conference (HICPT)
EMBS Micro and Nanotechnology in Medicine (MNM)
Grand Challenges Conference Series (GCBE)
IEEE EMBS International Conference on Biomedical and Health Informatics (BHI)

SUMMER SCHOOLS Technically Co-Sponsored by EMBS

International Summer School on Biomedical Imaging
International Summer School on Biomedical Signal Processing
International Summer School on Biocomplexity
International Summer School on Information Technology in Biomedicine
International Summer School on Emerging Technologies and Applications in Telemedicine:
Addressing the Challenges of Chronic Disease Management
International Summer School on Neural Engineering (ISSNE)



Organizing Committee

Conference Chairs

Sergio Cerutti, Politecnico di Milano, Italy

Paolo Bonato, Harvard Medical School, Boston MA, USA

Program Chairs:

Nigel Lovell, University of New South Wales, Sydney, Australia

Luca Mainardi, Politecnico di Milano, Italy

International Program Chairs

Metin Akay, University of Houston TX, USA

Jose C Principe, University of Florida, Gainesville, FL USA

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Marcello Bracale, Università di Napoli, Italy

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Mauro Ursino, Università di Bologna, Italy

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Exhibits and Corporate Partnerships Chair

Valentina Corino, Politecnico di Milano, Italy

Social & Special Events:

Valentina Corino, Politecnico di Milano, Italy

Manuela Ferrario, Politecnico di Milano, Italy

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Subhamoy Mandal, Technical University, Munchen, Germany

Lisa Lazareck, Wellcome Trust, London, United Kingdom

Roberta Sclocco, Politecnico di Milano, Italy

Eleonora Maggioni, Politecnico di Milano, Italy

Silvia Orlandi, Università di Firenze, Italy

Publications

Colin J H Brenan, HiFiBio BV, Boston MA, USA

Anna Maria Bianchi, Politecnico di Milano, Italy

Silvestro Micera, Scuola Superiore Sant'Anna, Pisa, Italy

Women in Engineering

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Claudia Manfredi, Università di Firenze, Italy

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Lisa Lazareck, Wellcome Trust, London, United Kingdom

Abigail Parks

Matthias Reumann, IBM, Germany

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Roberta Sclocco, Politecnico di Milano, Italy

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Barbara Oakley, Oakland University MI, USA

Webmaster

Roberto Sassi (Chair), Università degli Studi di Milano

Matteo Migliorini, Politecnico di Milano, Italy

Massimo W. Rivolta, Università degli Studi di Milano, Italy

Program Themes and Chairs

Theme 1. Biomedical Signal Processing

Theme Chairs

Fabio Babiloni	University of Rome
Anna Maria Bianchi	Politecnico di Milano
Ki Chon	University of Connecticut
Kazuo Yana	Hosei University

Theme 2. Biomedical Imaging & Image Processing

Theme Chairs

Elsa Angelini	Columbia University
Giuseppe Baselli	Politecnico di Milano
Andreas Hielscher	Columbia University
Giovanna Rizzo	National Research Council (CNR)

Theme 3. Bioinstrumentation: Biosensors & Bio-Micro/Nano Technologies

Theme Chairs

Arti Ahluwalia	Pisa University
Walt Besio	University of Rhode Island
Utkan Demirci	Harvard-MIT/HST

Theme 4. Bioinformatics & Computational Biology; Systems Biology, & Modeling Methodologies

Theme Chairs

Riccardo Bellazzi	University of Pavia
Socrates Dokos	University of New South Wales
Elebeoba May	University of Houston
Grace Peng	NIH/NIBIB

Theme 5. Cardiovascular & Respiratory Systems Engineering

Theme Chairs

Nicolas Chbat	Philips Research North America
Michael Khoo	University of Southern California
Maria Gabriella Signorini	Politecnico di Milano
Mauro Ursino	University of Bologna

Theme 6. Neural & Rehabilitation Engineering

Theme Chairs

Metin Akay	University of Houston
Dario Farina	Bernstein Center for Computational Neuroscience, University Medical Center Göttingen
Silvestro Micera	Scuola Superiore Sant'Anna, Pisa

Theme 7. Tissue Engineering & Biomaterials

Theme Chairs

Melissa Knothe Tate	University of New South Wales
Paolo Netti	University of Napoli
Carmelina Ruggiero	University of Genova
Monica Soncini	Politecnico di Milano

Theme 8. Biomechanics & Biorobotics

Theme Chairs

Ugo Della Croce	University of Sassari
Arianna Menciassi	Scuola Superiore Sant'Anna, Pisa
James Patton	University of Illinois at Chicago

Theme 9. Therapeutics Systems, Devices & Technologies, & Clinical Engineering

Theme Chairs

Dieter Haemmerich	Medical University of South Carolina
Paolo Lago	Fondazione IRCCS Policlinico S. Matteo, Pavia
Dorin Panescu	Newcardio

Theme 10. Healthcare Information Systems & Telemedicine

Theme Chairs

Ilkka Korhonen	Tampere University of Technology
Silvana Quaglini	University of Pavia
May Wang	Georgia Tech

Theme 11. Biomedical Engineering Education

Theme Chairs

Martha Zequera Diaz	Pontifica Universidad Javeriana
Ratko Magjarevic	University of Zagreb
Barbara Oakley	Oakland University

Theme 12. Technologies for Active Ageing & Wellbeing

Theme Chairs

Lorenzo Chiari	University of Bologna
Nigel Lovell	University of New South Wales
Mark van Gils	VTT Tech Research Centre of Finland
Toshiyo Tamura	Osaka Electro-communication University

Minisymposium

Title	Organizers	Where & When
1.M1 Graph Analysis of Functional Brain Networks: Theory, Applications and Issues	Chavez, Mario-CNRS UMR7225 Paris, France Astolfi, Laura-University of Rome Sapienza Achard, Sophie-CNRS, GIPSA-lab, Images and Signals Department	Thursday, August 27, 2015 12:45-14:15 Amber 1
2.M1 Frontiers in Phase Contrast X-ray Imaging for Biomedical Applications	Das, Mini-University of Houston Anastasio, Mark-Washington Univ. in St. Louis	Wednesday, August 26, 2015 15:30-17:00 Suite 6
2.M2 Neuroimaging in Psychiatry	Brambilla, Paolo-University of Milan, Fondazione IRCCS Ospedale Maggiore Policlinico, Milan, Italy Bertoldo, Alessandra-University of Padova	Thursday, August 27, 2015 12:45-14:15 Amber 2
2.M3 Functional Near Infrared Spectroscopy: Engineering Challenges and Translation to the Clinic	Pollonini, Luca-University of Houston	Saturday, August 29, 2015 12:45-14:15 Amber 1
2.M4 Photoacoustic Imaging: Systems, Agents, and Applications	Kim, Chulhong-Pohang University of Science and Technology Razansky, Daniel-Technical University of Munich and Helmholtz Center Munich	Saturday, August 29, 2015 12:45-14:15 Amber 3
3.M1 Biomedical Technology in Space: Results from the Futura Mission of the Italian Space Agency	Di Rienzo, Marco-Fondazione Don Carlo Gnocchi	Thursday, August 27, 2015 12:45-14:15 Amber 3
4.M1 Methods, Technologies, and Scientific Principles of Translational Bioinformatics	Riva, Alberto-University of Florida	Thursday, August 27, 2015 12:45-14:15 Amber 8
4.M2 Machine Learning and Simulation of Dynamic Patterns of Biological Systems at Multiscale: Protein Structures, Stochastic Networks, and Tissue Pattern Formation	Liang, Jie-University of Illinois at Chicago Gao, Xin-King Abdulla University of Science and Technology	Saturday, August 29, 2015 12:45-14:15 Amber 6
5.M1 Latest Development of Cardiovascular Electroceuticals	Sunagawa, Kenji-Kyushu University Saku, Keita-Kyushu University	Thursday, August 27, 2015 12:45-14:15 Amber 4
5.M2 Cuff-Less Blood Pressure Monitoring via Pulse Transit Time –I: Standardization, Theory and Clinical Significance	Di Rienzo, Marco-Fondazione Don Carlo Gnocchi Parati, Gianfranco-Università degli Studi di Milano-Bicocca Zhang, Yuan-Ting-The Chinese University of Hong Kong	Friday, August 28, 2015 12:45-14:15 Brown 1
5.M3 Cuff-Less Blood Pressure Monitoring via Pulse Transit Time II– Recent Advances on Systems	Hahn, Jin-Oh-University of Maryland Mukkamala, Ramakrishna-Michigan State University	Friday, August 28, 2015 14:30-16:00 Brown 1
5.M4 Mechanical Circulatory Support: Flow, Cells and Devices	Slepian, Marvin J.-University of Arizona Morshuis, Michel-Heart Centrum, NorthRein Westphalia, Bad Oeyenhausen Redaelli, Alberto-Politecnico di Milano Bluestein, Danny-Stony Brook University Moscato, Francesco-Medical Univ. of Vienna Schima, Heinrich-University of Vienna	Saturday, August 29, 2015 12:45-14:15 Amber 4

5.M5 Systems Physiology and Signal Analysis in Natural Sleep and Sleep Disorders I	Khoo, Michael-University of Southern California Penzel, Thomas-Charite University Hospital	Thursday, August 27, 2015 12:45-14:15 Brown 1
5.M6 Systems Physiology and Signal Analysis in Natural Sleep and Sleep Disorders II	Khoo, Michael-Univ. of Southern California Penzel, Thomas-Charite Univ. Hospital	Thursday, August 27, 2015 14:30-16:00 Brown 1
5.M7 Systems Physiology and Signal Analysis in Natural Sleep and Sleep Disorders III	Khoo, Michael-Univ. of Southern California Penzel, Thomas-Charite Univ. Hospital	Thursday, August 27, 2015 17:30-19:00 Brown 1
6.M1 Myoelectric Computer Interfaces in Neurophysiology and Rehabilitation	Slutzky, Marc-Northwestern University Jackson, Andrew-Newcastle University	Thursday, August 27, 2015 12:45-14:15 Amber 5
6.M2 Latest Advances in Neuroimaging of the Central Autonomic Network: Combining Autonomic Dynamics and Brain Imaging Data	Barbieri, Riccardo - MGH-Harvard Medical School-MIT Sclocco, Roberta - Politecnico di Milano	Friday, August 28, 2015 12:45-14:15 Amber 6
6.M3 Grand Challenges in Brain Researches in Europe and in USA	Cerutti, Sergio-Politecnico di Milano Bonato, Paolo-Harvard Medical School	Wednesday, August 26, 2015 15:30-17:00 Silver Room
7.M1 Bio-Instructive Scaffolds for Musculoskeletal Regenerative Medicine	Brown, Justin-The Pennsylvania State Univ. Kumbar, Sangamesh-The University of Connecticut	Thursday, August 27, 2015 12:45-14:15 Amber 6
8.M1 Bio-hybrid Systems: Enabling Technologies for Quasi-Living Robots	Ricotti, Leonardo-Scuola Superiore Sant'Anna	Thursday, August 27, 2015 12:45-14:15 Amber 7
9.M1 Devices and Circuits for Man-Machine Interfaces	Chen, Jie-University of Alberta	Thursday, August 27, 2015 12:45-14:15 White 2
9.M2 Continuous-Flow Biochips: Technology, Testing and Design for Fault-Tolerance and Reliability	Pop, Paul-Technical University of Denmark Grover, William-Univ. of California, Riverside Chakrabarty, Krishnendu-Duke University	Friday, August 28, 2015 12:45-14:15 White 2
10.M1 Big Data for Understanding and Modelling of Health Behaviors	Korhonen, Ilkka-Tampere University of Technology Tamura, Toshiyo-Osaka Electro-Communication University	Thursday, August 27, 2015 12:45-14:15 Brown 2
10.M2 Turning Big Data into Meaningful Data	Bressan, Nadja-University of Ontario Institute of Technology Reumann, Matthias-IBM Research – Zurich	Saturday, August 29, 2015 12:45-14:15 Brown 2
10.M3 mHealth Review: Cross-Disciplinary Technologies, Deployments and Future Trends	Casson, Alexander James-The University of Manchester Postolache, Octavian-Instituto de Telecomunicacoes	Friday, August 28, 2015 12:45-14:15 Amber 4
10.M4 New Directions in Metabolic Measurement Technologies and Behavior Support	Moon, Jon-MEI Research, Ltd Wang, May D.-Georgia Tech and Emory Univ.	Saturday, August 29, 2015 12:45-14:15 Amber 5

11.M1 Advances in Diabetes Management and Social Impact”	Magjarevic, Ratko-University of Zagreb Zequera Diaz, Martha Lucia-Associate Prof. at Pontificia Universidad Javeriana - Electronics Department - Ergosalud Ltda.	Saturday, August 29, 2015 12:45-14:15 Amber 7
12.M1 Optimizing Point of Care Engagement I	Pai, Vinay-National Institutes of Health Rodgers, Mary-University of Maryland School of Medicine Lash, Tiffani-National Institutes of Health, NIBIB	Friday, August 28, 2015 12:45-14:15 Amber 2
12.M2 Optimizing Point of Care Engagement II	Pai, Vinay-National Institutes of Health Rodgers, Mary-University of Maryland School of Medicine Lash, Tiffani-National Institutes of Health, NIBIB	Saturday, August 29, 2015 12:45-14:15 Amber 2
12.M3 Smart, Sustainable and Inclusive Health in a Smart City	Nollo, Giandomenico-University of Trento Elena, Mugellini-Humatech-University of Applied Sciences and Arts Western Switzerland	Friday, August 28, 2015 12:45-14:15 Amber 5
12.M4 Current Trends in Fall Prediction and Prevention Technologies	Chiari, Lorenzo-Univ. of Bologna Lovell, Nigel H.-Univ. of New South Wales	Friday, August 28, 2015 12:45-14:15 Brown 2

Invited Session

Title	Author	Where & When
1.8 Disentangling Patho-Physiological Mechanisms from Multivariate Cardiovascular Variability Series	Porta, Alberto-Univ. degli Studi di Milano Faes, Luca-Univ. of Trento	Wednesday August 26, 2015 11:30-13:00 Space 2
1.19 Biosignal Monitoring and Processing for Ubiquitous Health Care	Yana, Kazuo-Hosei University Chon, Ki-University of Connecticut	Thursday, August 27, 2015 14:30-16:00 Space 1
1.20 Information Dynamics in Networks of Biomedical Signals	Faes, Luca-Univ. of Trento Porta, Alberto-Univ. degli Studi di Milano	Thursday August 27, 2015 14:30-16:00 Space 2
1.23 Brain Connectivity: Methodological Advancements and Future Challenges	Astolfi, Laura-University of Rome Sapienza Faes, Luca-University of Trento	Thursday August 27, 2015 17:30-19:00 Space 1
1.29 Tensor Methods for Biomedical Signal and Data Analysis	Van Huffel, Sabine-Katholieke Univ. Leuven Zarzoso, Vicente-Université Nice Sophia Antipolis – CNRS	Friday August 28, 2015 14:30-16:00 Amber 1
2.2 Pediatric and Fetal Imaging	Grisan, Enrico-University of Padova Linguraru, Marius George-Children's National Health System	Wednesday August 26, 2015 08:30-10:00 Amber 4
2.16 Imaging in Radiation Therapy	Rizzo, Giovanna-National Research Council (CNR) Acosta, Oscar-Univ. of Rennes 1	Thursday August 27, 2015 17:30-19:00 Amber 3
3.1 Novel Applications of Wearable Sensor Technology with Live Demonstrations	Sazonov, Edward-University of Alabama Postolache, Octavian-Instituto de Telecomunicações Teichmann, Daniel-RWTH Aachen University	Wednesday August 26, 2015 08:30-10:00 Space 4
3.5/3.6 RF Technologies for Medical Implants I & II	Balasingham, Ilango-Oslo University Hospital and Norwegian University of Science and Technology - Chavez-Santiago, Raul -Oslo University Hospital	3.5 Thursday August 27, 2015 14:30-16:00 Space 4
		3.6 Thursday August 27, 2015 17:30-19:00 Space 4
3.8 Label Free Live Cell Monitoring	Wiest, Joachim-cellasys GmbH Brischwein, Martin-Technische Universität München	Friday August 28 2015 14:30-16:00 Amber 5
3.9 Advanced Bioelectronic Interfaces	Gosselin, Benoit-Laval University Mohseni, Pedram-Case Western Reserve Univ.	Friday August 28, 2015 14:30-16:00 Amber 6
3.10 Signal Treatment and Feature Extraction from Ballistocardiogram and Seismocardiogram	Di Rienzo, Marco-Fondazione Don Carlo Gnocchi Inan, Omer-Georgia Institute of Technology	Friday August 28, 2015 14:30-16:00 Suite 5

4.8/4.9/4.11 Bringing big data to its knees - III: Advances in storing, mining and visualizing big bio-medical data in the post-genomic era: Medical decision-making	Seker, Huseyin-The University of Northumbria at Newcastle Sugimoto, Masahiro-Keio University Pattichis, Constantinos-University of Cyprus Chrysostomou, Charalambos, University of Leicester	4.8 Friday August 28, 2015 14:30-16:00 White 2
		4.9 Friday August 28, 2015 17:30-19:00 White 2
		4.11 Saturday August 29, 2015 08:30-10:00 Suite 8
5.5 Advanced Engineering Methods for Respiratory Medicine	Chbat, Nicolas W.-Philips Research North America	Thursday August 27, 2015 17:30-19:00 Amber 7
5.8 Microcirculation: New Methods for Gathering Information about Peripheral Blood Flow	Bocchi, Leonardo-Università degli Studi di Firenze, Firenze, Italy	Friday August 28, 2015 17:30-19:00 Brown 2
5.9 Cardio-Respiratory Regulation Modeling	Ursino, Mauro-University of Bologna	Saturday August 29, 2015 08:30-10:00 Brown 2
6.1 Brain-Computer/Machine Interface I	Takahashi, Kazutaka-University of Chicago Vato, Alessandro-Fondazione Istituto Italiano di Tecnologia Balasubramanian, Karthikeyan-University of Chicago	Wednesday August 26, 2015 08:30-10:00 Brown 3
6.2 Noninvasive Brain Stimulation: Modeling, Techniques and Mechanisms	Peterchev, Angel V-Duke University Parazzini, Marta-Consiglio Nazionale delle Ricerche	Wednesday August 26, 2015 08:30-10:00 Amber 7
6.17 Engineering Approaches to Understanding Orofacial Functions	Takahashi, Kazutaka-University of Chicago Slutzky, Marc-Northwestern University	Thursday August 27, 2015 17:30-19:00 Amber 8
6.18 Local Field Potentials in Movement Disorders	Ince, Nuri Firat-University of Houston Marceglia, Sara-Univ. degli Studi di Trieste Bianchi, Anna Maria-Politecnico di Milano	Friday August 28, 2015 08:30-10:00 Brown 3
6.23 Biomimetic and Biofeedback Approaches for Myoelectric Control	Nazarpour, Kianoush-Newcastle University Farina, Dario-Bernstein Center for Computational Neuroscience, University Medical Center Göttingen Atzori, Manfredo-Univ. of Applied Sciences Western Switzerland (HES-SO Valais) Krasoulis, Agamemnon-The University of Edinburgh Dosen, Strahinja-University Medical Center, UMG, Goettingen Bongers, Raoul M-University of Groningen, University Medical Center Groningen	Friday August 28, 2015 14:30-16:00 Amber 8
6.24 New Technological Platforms to Study Children Development	Taffoni, Fabrizio-Campus Bio-Medico Univ. Cecchi, Francesca-Scuola Superiore Sant'Anna	Friday August 28, 2015 17:30-19:00 Brown 3

6.27 Neural Engineering and Neuro-Psychiatric Disorders: Integrated Algorithmic and Hardware Design of a Closed-Loop Brain Stimulation System	Barbieri, Riccardo-MGH-Harvard Medical School-MIT Faghih, Rose T.-MIT	Saturday August 29, 2015 08:30-10:00 Brown 3
7.1 Advanced technologies for Cell & Tissue Engineering	Soncini, Monica-Politecnico di Milano Kamm, Roger D-MIT	Wednesday August 26, 2015 08:30-10:00 White 2
7.2 Biomimetic and Injectable Systems in Regenerative Medicine	Tanzi, Maria Cristina-INSTM, Local Unit Politecnico di Milano Farè, Silvia-Politecnico di Milano	Wednesday August 26, 2015 11:30-13:00 White 2
7.3 Automated Biological Laboratories	Ghafar-Zadeh, Ebrahim-York University Gosselin, Benoit-Laval University	Wednesday August 26, 2015 15:30-17:00 White 2
8.2 Motor Control Strategies in Complex Tasks	Zenzeri, Jacopo-Istituto Italiano di Tecnologia Nomura, Taishin-Osaka University	Wednesday August 26, 2015 11:30-13:00 Brown 1
8.3 Mechanobiology	Remuzzi, Andrea-University of Bergamo Raimondi, Manuela Teresa-Politecnico di Milano	Wednesday August 26, 2015 15:30-17:00 Brown 1
9.3 Design, Development and Standards of Medical Devices I	Andersen, Björn-Universität zu Lübeck Kasparick, Martin-University of Rostock	Wednesday August 26, 2015 11:30-13:00 White 1
9.4 Stimulation and Monitoring Technologies	Jie Chen-University of Alberta	Wednesday August 26, 2015 15:30-17:00 White 1
10.6 Innovative Methods and IT-tools to Support Diagnosis and Management of Type 2 Diabetes Mellitus	Bellazzi, Riccardo-University of Pavia Traver, Vicente-Institute ITACA	Wednesday August 26, 2015 15:30-17:00 Suite 5
10.9 Wearable and Mobile Technologies for Active Living and Healthy Ageing: from Concerns and Pilots to Best Practice and Evidence	Amor, James-University of Warwick James, Christopher-University of Warwick	Friday August 28, 2015 17:30-19:00 Space 4
11.1 Innovations in Biomedical Engineering Education “	Zequera Diaz, Martha Lucia-Associate Prof. at Pontificia Universidad Javeriana - Electronics Department - Ergosalud Ltda.	Thursday August 27, 2015 14:30-16:00 Suite 6
12.1 Innovations to Support Elderly in a Multi-Residential Setting	Zhang, Qing-CSIRO ICT Centre Karunanithi, Mohanraj-CSIRO Digital Productivity Flagship	Thursday August 27, 2015 17:30-19:00 Suite 8

Special Sessions

Title	Author	Where & When
SS1 Accelerating Biomedical Technologies Through Open Standards Development	Carey, Carole C.-Former U.S. Food and Drug Administration Hecht, Bruce-Analog Devices	Saturday, August 29, 2015 12:45-14:15 Brown 1
SS2 Historical Context for the Present & Future of Biomedical Engineering	Leder, Ron-Universidad Nacional Autonoma de Mexico Savini, Antonio-U.of Pavia, Italy Magenes, Giovanni-University of Pavia Valentinuzzi, Max E.-Universidad de Buenos Aires	Saturday, August 29, 2015 12:45-14:15 Suite 8
SS3 Biomedical Engineering in South Africa (Honoring the Memory of Prof. Cornie Scheffer)	Karlen, Walter-ETH Zurich Dellimore, Kiran-Philips Research	Saturday, August 29, 2015 12:45-14:15 White 2
SS4 Neuronal Probes for Investigating Brain Circuits: Scopes and Challenges	Mahmud, Mufti - Univ. of Padova Vassanelli, Stefano - NeuroChip Lab. Univ. of Padova	Friday, August 28, 2015 12:45-14:15 Suite 7
SS5 Learning How to Learn	Oakley, Barbara-Oakland University	Friday, August 28, 2015 12:45-14:15 Amber 8
SS6 Creating an Ethical Mindset Through Professional Development	Cohen, Bernard Allan-Neurological Monitoring Associates, LLC	Friday, August 28, 2015 12:45-14:15 Amber 7

Conference Editorial Board for EMBC 2015

I would like to sincerely thank the following members of the Conference Editorial Board. In a period of three weeks, 2948 contributed papers were reviewed with on average three reviewers per paper. Theme editors also made initial “accept/reject” decisions and created a draft scientific program for each theme. Each year for the past five years we have improved the quality of the papers being submitted with a steady and continual increase in the rejection rate but more significantly a rise in the overall paper ratings and level of feedback given to authors. Without the continued dedication and commitment of the Editors, Associate Editors and Reviewers, our EMB Annual Conference would not be able to run. I would also like to take this opportunity to give a heartfelt thanks to Nigel Lovell, who as the former editor in chief helped me considerably in my new role. His help dovetailed perfectly in his role this year as Program Chair of the conference. I thank all of the members of the Editorial Board, listed below, who made my work a real pleasure. It’s been an honour and privilege to be part of such a fine community.

Jim Patton, Editor in Chief for Conference Editorial Board, EMBC2015

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Theme 04. Bioinformatics and Computational Biology; Systems Biology; Modeling Methodologies

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Theme 05. Cardiovascular and Respiratory Systems Engineering

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Vigmond, Edward

Theme 06. Neural and Rehabilitation Engineering

Abbas, James
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Theme 08. Biomechanics and Robotics

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Sanguineti, Vittorio
Su, Hao
Zequera Diaz, Martha Lucia

Theme 09. Therapeutic and Diagnostic Systems, Devices and Technologies; Clinical Engineering

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Theme 12. Technologies for Active Ageing and Wellbeing

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Bozkurt, Alper
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Brankov, Jovan G

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Caliano, Giosue	Cheikh Latyr, Fall	Corbett, Elaine	Ding, Lei
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Cao, Hong	Chen, Hailin	Costa, Álvaro	Doessel, Olaf
Cao, Youfang	Chen, Jie	Costa, Silvana C.	Doheny, Emer
Capadona, Jeffrey	Chen, Liangyou	Cota, Navin Gupta	Doi, Kouki
Capogrosso, Marco	Chen, Mei-Jung	Craig, Ashley	Dojat, Michel
Cappello, Angelo	Chen, Mo	Crispi, Fatima	Dokos, Socrates
Cappello, Leonardo	Chen, Siyuan	Crozier, Stuart	Dommel, Norbert Brian
Cappozzo, Aurelio	Chen, Wenxi	Cubo, Ruben	Dougherty, Jaimie
Cardona, Narcis	Chen, Yang	Cuenod, Charles A	Dourado, António
Carey, Carole C.	Chen, Ying	Cui, Guoping	Duan, Qi
Cariñena Amigo, P.	Chen, Yue	Cui, Richard J.	Dubois, Rémi
Carloni, Raffaella	Chen, Zhi	Cunningham, Brian	Duggento, Andrea
Carlson, Tom	Chendeb El Rai, Marwa	Curto, Sergio	Dunne, Lucy
Carmi, Raz	Cheng, Chihwen	Cvetkovic, Dean	Duplaga, Mariusz
Carpaneto, Jacopo	Cheng, Leo K	Cysarz, Dirk	Durand, Dominique
Carrault, Guy	Cheng, Limei	D. Vilar Wanderley, Caroline	Durfee, William
Carson, James	Cheng, Teddy Man Lai	da Rocha, Adson F.	Durrani, Mohammed N.
casadio, maura	Cheng-Liao, Jinxiu	Dagliati, Arianna	Dutkiewicz, Eryk
Casaleggio, Aldo	Chin, Zheng Yang	Dai, Huhe	Dutta, Anirban
Casals, Alicia	Chinzei, Kiyoyuki	Dai, Tao	Eagleson, Roy
Casas, Oscar	Chiu, Hung-Wen	Dai, Yakang	Earley, Eric
Casaseca-de-la-Higuera, P.	Chkeir, Aly	Dai, Yang	Eberl, Stefan
Casson, Alexander James	Cho, Jaegel	Danziger, Zachary	Eden, Uri
Castaneda-Villa, Norma	Cho, Jongman	Dao, Tien-Tuan	Elfaramawy, Tamer
Castellanos-Dominguez, G.	Cho, Seungryong	Dash, Ranjan	Ella, Srikanth
Castiglioni, Paolo	Choi, Changmok	Datta, Sushmita	Ellis, Michael
Castro Pereiro, Daniel	Choi, Inhee	Dauwels, Justin	Emigh, Matthew
Castro, Marcelo	Choi, Jin-Woo	D'Avenio, Giuseppe	Englehart, Kevin
Catai, Aparecida	Choi, Jonghyun	de Carvalho, Paulo	Erfanian, Abbas
Cathebras, Guy	Chon, Ki	De Jonckheere, Julien	Ermes, Miiikka
Cattelani, Luca	Chou, Cheng-Ying	de Jongh Curry, Amy	Erson Omay, E. Zeynep
Causevic, Elvir	Chou, Nee-Yin	De Maria, Beatrice	Escalona, Omar Jacinto
Cauwenberghs, Gert	Chouvarda, Ioanna	de Munck, J. C.	Escudero, Javier
Cavaro-Ménard, Christine	Chowdhury, Sagar	De Rossi, Danilo	Eskofier, Bjoern M
Cavuscens, Samuel	Christensen, Gary E.	De Santis, Dalia	Esposti, Federico
Cazuguel, Guy	Chrysostomou, Charalambos	de Toledo, Paula	Estep, Justin Ronald

Evans, Daniel	Fumene Feruglio, Paolo	Gubbi, Jayavardhana	Hoffmann, Kenneth
Exarchos, Konstantinos	Gabran, Salam	Guerrero-Mora, Guillermina	Hoffmann, Klaus-Peter
Exarchos, Themis P.	Gadam, Uthayakumar	Guijarro, Enrique	Hofmann, Ulrich G.
Ezenwa, Bertram	Gaeta, Giuliano	Guillemaud, Regis	Hollmann, Joseph
Faes, Luca	Gagnon-Turcotte, Gabriel	Guiot, Caterina	Holloway, Catherine
Falk, Tiago	Gallardo-Hernández, Ana G.	Guiraud, David	Holobar, Ales
Fan, Qihui	Ganesan, Kumaravelu	Guler, Ozgur	Holtrop, Joseph
Fanelli, Andrea	Gao, Fan	Gumery, Pierre-Yves	Homma, Noriyasu
Farella, Elisabetta	Gao, Mingwu	Guo, Tianruo	Honeine, Paul
Farina, Dario	Gao, Shangkai	Gupta, Disha	Honeycutt, Claire
Farooq, Muhammad	Garatachea, Nuria	Gurkan, Umut A.	Horch, Kenneth
Farooq, Omar	Garces, M Agustina	Gutierrez, Mario Ibrahim	Hori, Junichi
Fatemizadeh, Emad	Garcia Aznar, Jose Manuel	Guzik, Przemyslaw	Hornero, Roberto
Fayn, Jocelyne	Garcia, Maria	Gyselinckx, Bert	Horowitz, Justin
Fazel-Rezai, Reza	Garcia-Casado, Javier	Haarman, Claudia	HOSAKA, Ryosuke
Fehm, Thomas F.	García-Gordillo, Carlos	Hadjileontiadis, Leontios	Hoshino, Takayuki
Feldman, Michael	Garcia-Molina, Gary Nelson	Haemmerich, Dieter	Hradetzky, David
Felfoul, Ouajdi	Garcia-Pardo, Concepcion	Hahn, Jin-Oh	Hsiao, Min-Chi
Félix Lamas, Paulo	Garde, Ainara	Haidegger, Tamas	Hu, Qiao
Felix, Sarah	Gardiner, Bruce	Hajdu, Andras	Hu, Sijung
Feng, Mengling	Garg, Amanmeet	Haji Samadi, Mohammad R.	Hu, Xiaogang
Feng, Shuo	Garg, Saurabh	Halamek, Josef	Huang, Chi-Fang
Fenster, Aaron	Gargioli, Cesare	Haldar, Justin	Huang, Felix
Fernández-Breis, Jesualdo T.	Garnavi, Rahil	Hamadicharef, Brahim	Huang, He
Fernandez-Leal, Angel	Gelpi, Ricardo	Hamalainen, Matti	Huang, Lei
Fernandez-Llatas, Carlos	Gentili, Rodolphe	Hämäläinen, Matti	Huang, Weimin
Ferrandez, Jose M.	Ghafar-Zadeh, Ebrahim	Hamidian, Hajar	Huang, Yanping
Ferrari, Vincenzo	Ghane-Motlagh, Bahareh	Han, Chengzong	Hudson, Donna L
Ferrario, Manuela	Ghareh Gozlou, Morteza	Hannula, Markus	Hughes, Glen
Feruglio, Sylvain	Ghinea, Gheorghita	Hansen, Ingeborg Helbech	Humeau-Heurtier, Anne
Fey, Nicholas	Ghoraani, Behnaz	Hariharan, Prasanna	Hunyadi, Borbala
Fichtinger, Gabor	Ghumare, Eshwar	Harris, Arief R.	Husar, Peter
Fieselmann, Andreas	Giannakeas, Nikolaos	Hartin, Phillip	Hussain, Hanaa
Finkelstein, Stanley	Gibson, Adam	Hassan, Mahmoud	Iadanza, Ernesto
Finley, James	Gil, Eduardo	Hawe, Rachel	Iaizzo, Paul
Fiocchi, Serena	Giordano, Daniela	Hayashibe, Mitsuhiro	Iasemidis, Leonidas
Fiore, Gianfranco	Giraldo, Beatriz	Hayes, Jer	Ifechor, Emmanuel
Fischer, Peer	Gligorijevic, Ivan	Hayn, Dieter	Igual Garcia, Jorge
Fitzgerald, Diarmaid	Golemati, Spyretta	He, Renjie	Ikarashi, Akira
Fletcher, Richard Ribon	Gomez, Carlos	He, Tiancheng	Ilbay, Gul
Fleury, Anthony	Gomez, Enrique J.	Hedin, Daniel	Im, Chang-Hwan
Flexman, Molly	Gomis, Pedro	Hedjazi Moghari, Mehdi	Imura, Masataka
Floor, Pål Anders	Gonzalez Suarez, Ana	Hegde, Nagaraj	Inada, Shin
Flores, Francisco Javier	Gonzalez, Alejandro	Heisler, Morgan	Inan, Omer
Florez González, Julián	González, Francisco Javier	Hejrati, Babak	Ingebrandt, Sven
Fomina, Tatiana	Gonzalez, Jose	Hekman, Edsko	Ingenerf, Josef
Fontana, Juan M.	Gonzalez-Camarena, Ramon	Heldt, Thomas	Ino, Shuichi
Fontecave-Jallon, Julie	Goovaerts, Griet	Heller, Richard	Inoue, Jun
Formica, Domenico	Gosselin, Benoit	Hemm-Ode, Simone	Inoue, Yoshihiro
Fortune, Emma	Gough, David	Hemzal, Dusan	Iordachita, Iulian
Fotiadis, Dimitrios I.	Goujon, Jean-Marc	Hendrickson, Phillip	Iqbal, Kamran
Fouchard, Alexandre	Gouveia, Sonia	Heneghan, Conor	Iqbal, Samir M
Fragomeni, Gionata	Grasse, Dane W.	Henriques, Jorge	Isaacson, Benjamin
Freiman, Moti	Grayden, David B.	Herbelin, Bruno	Ishikawa, Hiroshi
French, Patrick J.	Grebe, Reinhard	Herman, Pawel	Istrate, Dan
Frenea-Robin, Marie	Greene, Barry R.	Hernández, Alfredo I	Itai, Akitoshi
Friedrich, Christoph M.	Greenfield, Alex	Hernandez, Antonio	Iwahashi, Masakuni
Frippo, Carlo	Grigoras, Carmen	Hernandez, Macro	Iwasaki, Kiyotaka
Fripp, Jurgen	Griñó, Roberto	Hernandez-Matos, Enrique	Iyer, Darshan
Frizzera Neto, Anselmo	Grisan, Enrico	Hernando, David	Jacquemet, Vincent
Frouin, Frédérique	Grønli, Tor-Morten	Herzog, Walter	Jafari, Roozbeh
Fujiwara, Koichi	Grönlund, Christer	Hevia-Montiel, Nidiyare	Jaffrezic-Renault, Nicole
Fukayama, Osamu	Grosse-Wentrup, Moritz	Hey, Stefan	Jain, Saurabh
Fukuoka, Yutaka	Grundlehner, Bernard	Higa, Hiroki	Jalali, Ali
Fukushima, Kazuhito	Gu, Xuejun	Hillen, Brian	James, Christopher
Fukushima, Makoto	Guan, Cuntai	Hiroi, Noriko	Jammeh, Emmanuel

Jämsä, Timo	Karmakar, Chandan	Kroll, Mark	Li, Zhenyu
Jan, Raethjen	Karmonik, Christof	Krugger, Frithjof	Li, Zhi
Jané, Raimon	Karnowski, Thomas	Kugiumtzis, Dimitris	Li, Zhi-Yong
Jansen, Bart	Karunakaran, Suganya	Kumamoto, Etsuko	Lian, Jie
Jaquess, Kyle	Karunanithi, Mohanraj	Kumar, Haribalan	Liang, Jie
Jaramillo Garzón, Jorge A.	Kato, Kazuo	Kuo, Shyh Ming	Liao, Hongen
Javier, Mateo	Kato, Yasuhiro, X	Kuroda, Tomohiro	Lima, Carlos Manuel G.S.
Javorka, Michal	Katz, Garrett	Kurugollu, Fatih	Lin, Chii-Wann
Jaworek-Korjakowska, J.	Kawada, Toru	Kuzmanic Skelin, Ana	Lin, Chin-Teng
Jean Christophe, Nebel	Kawaguchi, Minato	Kyriacou, Efthymoulos	Lin, Hong
Jeanne, Mathieu	Kawano, Takeshi	La Cruz, Alexandra	Lin, Kang Ping
Jennane, Rachid	Kawasaki, Ryo	Lackovic, Igor	Lin, Meishan
Jhunjhunwala, Priyavrat	Kazanides, Peter	Laforet, Jeremy	Lin, Yingkan
Ji, Jim Xiuquan	Kearney, Robert Edward	Laguna, Pablo	Lindecrantz, Kaj
Jia, Jingfei	Keemink, Arvid Quintijn L.	Lahuec, Cyril	Lingurar, Marius George
Jia, Wenyan	Keller, Thierry	Lai, Nicola	Linte, Cristian A.
Jiang, Yinlai	Khalaf, Kinda	Lai, Tze Huei, Daniel	Liu, Chao
Jimbo, Yasuhiko	khaleghi, Ali	Lama Penín, Manuel	Liu, Chenguang
Jimenez-Alaniz, Juan R.	Khalil, Mohamad	Lanata', Antonio	Liu, Dikai
Jimenez-Gonzalez, Aida	Khan, Masood Mehmood	Lang, Andrew	Liu, Fangde
Jimeno-Yepes, Antonio Jose	Khan, Salman	Lang, Elmar W.	Liu, Feng
Jin, Tao	Khandoker, Ahsan Habib	Larson-Prior, Linda	Liu, Guocai
Jin, Yan	Kharche, Sanjay	Laschi, Cecilia	Liu, Jianbo
Jin, Zhanpeng	Khmelniskii, Artem	Lasso, Andras	Liu, Jianguo
Jinghui, Jian	Khokhlova, Tatiana	Lau, Phooi Yee	liu, Wenzhong
Jo, Cheolwoo	Khoo, Michael	Lay-Ekuakille, Aime'	Liu, Xiao
Jo, Javian Antonio	Khushaba, Rami N.	Layton, Bradley E.	Liu, Yan
Johansen, Peter	Kilintzis, Vassilis	Lazaro, Francisco José	Liu, Yangwei
Johnson, Curtis	Kim, Desok	Lázaro, Jesús	Liu, Yinan
Johnson, Michelle	Kim, Hyun Keol	le Feber, Joost	Liu, Yipeng
Johnson, Reva	Kim, Jinman	Lecornu, Laurent	Lollett, Carlos Miguel
Johnson, Sarah J	Kim, Keun Ho	Leder, Ron	Loncar-Turukalo, Tatjana
Jones, Edward	Kim, Seongsin M.	Lederman, Dror	Lonini, Luca
Jones, Richard D.	Kimura, Yuichi	Lee, Chang Won	Lopez-Meyer, Paulo
Jonmohamadi, Yaqub	King, Kevin	Lee, Chang-Joon	Losada Carril, David E.
Joseph, Wout	Kinouchi, Yohsuke	Lee, Jae Sung	Lou, Bin
Jovanov, Emil	Kiryu, Tohru	Lee, Jiann-Der	Louis-Dorr, Valerie
Juhola, Martti	Kiyono, Ken	Lee, Jong-Ha	Lovell, Nigel H.
Jung, Tzyy-Ping	Knaflitz, Marco	Lee, Khuan Y.	Lowery, Arthur James
Jurak, Pavel	Knudsen, Eric	Lee, Kit-Hang	Lowery, Madeleine
Kabir, Muammar Muhammad	Kobashi, Syoji	Lee, Ray	Loza, Carlos
Kagiyama, Yoshiyuki	Kock, Ann-Kristin	Lee, Sabrina	Lu, Donghuan
Kahya, Yasemin P.	Kocyyigit, Yucel	Lee, Sang Wook	Lu, Shijian
Kailas, Aravind	Kohama, Takeshi	Lee, Seulki	Luan, Kuan
Kaji, Hirokazu	Komandur, Sashidharan	Lee, Shuenn-Yuh	Lucchini, Maristella
Kamath, Vidya	Kong, Jun	Lee, Won Hee	Ludvig, Daniel
Kamel, Nidal	Kopriva, Ivica	Leem, Juyoung	Luis, Vicente
Kameneva, Tatiana	Koralek, Aaron	Leistritz, Lutz	Luo, Jianwen
Kamiya, Atsunori	Korhonen, Ilkka	LeMoyne, Robert	Lymberis, Andreas
Kang, Pilgyu	Kortelainen, Jukka	Lenzi, Tommaso	Lymberopoulos, Dimitrios
Kang, Sukryool	Kosa, Gabor	Lepore, Natasha	Ma, Ao
Kang, Wendy	Kostic, Milos	Levinger, Pazit	Ma, Bing
Kanneganti, Raghuvveer	Kostoglou, Kyriaki	Levy, Pierre	Ma, Jingfei
Kant Kumar, Dinesh	Kota, Srinivas	Lhotska, Lenka	MacGillivray, Thomas
Kaplan, Alan D.	Kotani, Kiyoshi	Li, Bing Nan	Maeda, Yuka
Kar, Saptarshi	Kotecha, Mrignayani	Li, Gang	Maestri, Roberto
Karakostas, Tasos	Koutkias, Vassilis	Li, Guanglin	Maggioni, Eleonora
Karamolegkos, Nikolaos	Kouzani, Abbas Z.	Li, Jintao	Maggioni, Marco
Karampinos, Dimitrios	Kovács, Sándor J	Li, John K-J.	Maghsoudloo, Esmaeel
Karanasiou, Irene	Koyanagi, Ken'ichi	Li, Kan	Maglavera, Stavroula
Karavatselou, Evy	Kraemer, Jan F.	Li, Le	Maglaveras, Nikolaos
Karel, Joël	Krasoulis, Agamemnon	Li, Ling	Maglogiannis, Ilias
Karimi, Yasha	Krausz, Nili Eliana	Li, Shuo	Magni, Paolo
Karjalainen, Pasi, A	Kretowski, Marek	Li, Wen-Tyng	Mahadevappa, Manjunatha
Kark, Lauren	Kriminger, Evan	Li, Yun	Maharatna, Koushik
Karlen, Walter	Krishnamurthi, Narayanan	Li, Zhan	Mahmoudi, Said

Mainardi, Luca	Mihaylova, Lyudmila	Mynard, Jonathan	Orhanli, Tuna
Majewicz, Ann	Miklavcic, Damijan	Naemura, Kiyoshi	Ortiz-Posadas, Martha R.
Mak, Peng Un	Miled, Amine	Nagano, Hanatsu	Orun, Ahmet
Makowiec, Danuta	Milenkovic, Aleksandar	Nagaoka, Takashi	Osanlouy, Mahyar
Malandain, Gregoire	Miller, Laura C.	Nagayama, Katsuya	Oshiro, Osamu
Maldonado, José Alberto	Milosevic, Mladen	Naik, Ganesh R	Ostadabbas, Sarah
Malek , Adouni, Malek	Minaei Zaeim, Hamed	Nakajima, Kazuki	Otero, Abraham
Mallios, Stavros	Miniati, Roberto	Nakamura, Toru	Otto, Kevin
Mañanas, Miquel Angel	Minnikanti, Saugandhika	Nakao, Mitsuyuki	Ouyang, Gaoxiang
Mancuso, Matteo	Mino, Hiroyuki	Nanayakkara, Nuwan D.	Oweiss, Karim
Mancuso, Carlo	Mirbozorgi, Seyedabdollah	Narasimhan, Seetharam	Oyarzun Laura, Cristina
Manohar, Anitha	Mirfakhrai, Tissaphern	Nasserroleslami, Bahman	Padilha Lanari Bó, Antônio
Mansoor, Awais	Miri, Mohammad Saleh	Nau, William	Padir, Taskin
Marchi, Andrea	miroslav.vrankic@eglas.hr,	Navarro, Xavier	Paffi, Alessandra
Mariani, Sara	miroslav.vrankic@egla	Naveed, Hammad	Paglialonga, Alessia
Marin, Thibault	Mischi, Massimo	Nazarpour, Kianoush	Palanisamy, Krishnamoorthy
Marinazzo, Daniele	Misra, Sarthak	Negi, Sandeep	Palladino, Joseph
Mariottini, Gian-Luca	Mitsis, Georgios D.	Nelson, John	Pallas-Areny, Ramon
Marque, Catherine	miyamoto, tadayoshi	Neves, Eduardo Borba	Palmerini, Luca
Marquez, Jorge Alberto	Mizeva, Irina	Neves, Herc	Palumbo, Pierpaolo
Marschollek, Michael	Mo, Lingfei	Newell, Jonathan	Panagiotakopoulos, Theodor
Martínez Montiel, J.M.	Mogul, David	Nezami Ranjbar, Mohammad	Panarese, Alessandro
Martínez, Juan Pablo	Mohammadi, Elham	Ngo, Giang Chau	Panerai, Ronney
Martinsen, Ørjan G	Mohktar, Mas Sahidayana	Nguyen, Anthony	Panescu, Dorin
Martus, Roshan Joy	Mohseni, Pedram	Nguyen, Hung T.	Pant, Jeevan Kumar
Martuvada, Subha	Mohy-ud-Din, Hassan	Nguyen, Jordan Son	Pantelopoulos, Alexandros
Masè, Michela	Mokhtari, Ghassem	Nguyen, Thanh	Panzica, Ferruccio
Masè, Michela	Molinari, Filippo	Nguyen, Thuy Anh Khoa	Papadakis Ktistakis, Iosif
Mason, David Glen	Mollahosseini, Ali	Nichols, Jennifer	Papaordanidou, Maria
Massobrio, Paolo	Molteni, Erika	Nickerson, David Phillip	Paquit, Vincent
Masuda, Kohji	Momose, Keiko	Nicolaou, Nicoletta	Paradiso, Rita
Matrone, Giulia	Montesano, Luis	Nie, Kaibao	Parent, David
Matsopoulos, George K	Montoro, Alegria	Nielsen, Poul	Parimbelli, Enea
Matsuda, Tetsuya	Monzon, Jorge E.	Nikita, Konstantina	Park, Kidong
Matsumoto, Monica	Monzon-Wyngaard, Alvaro	Nikkhah, Mehdi	Park, Kwang S.
Matsushita, Kojiro	Morasso, Pietro	Nimunkar, Amit	Parmar, Pritesh
Matthews, Thomas	morbiducci, umberto	Nitta, Naotaka	Parsaei, Hossein
Mavic, Blaž	Moreno Lorente, Luis	Nizamis, Kostas	Pasquier, David
Mavoungou, Philippe	Moreno, Juan C.	Noghanian, Sima	Passariello, Gianfranco
May, Elebeoba	Moreno, Pedro	Nollo, Giandomenico	Patasius, Martynas
Mazzà, Claudia	Moriconi, Stefano	Nomura, Taishin	Patriciu, Alexandru
Mazzoleni, Stefano	Morin, Evelyn	Nourani, Mehrdad	Patrick, Erin
McGrath, Michael James	Morley, John William	Noury, Norbert	Patterson, Timothy
McGregor, Carolyn	Morozoff, Edmund	Nunokawa, Kiyohiko	Pattichis, Constantinos
Medvedev, Alexander	Morss Clyne, Alisa	Nygren, Anders	Pattichis, Marios
Mehdizadeh, Arash	Moslehpour, Mohsen	Obinata, Goro	Pattini, Linda
Meigal, Alexander	Moslem, Bassam	Ochiai, Ryoichi	Patton, James (Jim)
Meigas, Kalju	Moufawad el Achkar, C.	Ogawa, Mitsuhiro	Paul Chaudhuri, Buddhadev
Melia, Umberto Sergio Pio	Mougiakakou, Stavroula	Oguri, Koji	Pavan, Esteban E.
Mello, Carlos	Moussavi, Zahra	Oh, Hyuk	Pavel, Misha
Mellone, Sabato	Moxon, Karen	Ohnishi, Kengo	Pavesi, Andrea
Melo, Marco	Muceli, Silvia	Ohta, Aaron	Payne, Christopher J.
Meloni, Gianluca	Muehlsteff, Jens	Ohta, Hidetoshi	Payne, Stephen John
Menciassi, Arianna	Mugler, Emily	Ohta, Jun	Pearce, John Anthony
Mendes, Paulo M.	Mukkamala, Ramakrishna	Okada, Kazunori	Pécreaux, Jacques
Mendez, Martin Oswaldo	Müller, Bertram	Okada, Minoru	Pedoto, Gilda
Meo, Marianna	Müller, Klaus-Robert	Okamoto, Eiji	Pedrocchi, Alessandra
Meraz, Erika	Mulvaney, David	Okamoto, Jun	Peixoto, Nathalia
Meriaudeau, Fabrice	Munih, Marko	Oku, Yoshitaka	Peltier, Scott James
Merletti, Roberto	Muñoz-Barrutia, Arrate	Okumura, Hiroshi	Penders, Julien
Mesbah, Mostefa	Muñoz-Diosdado, Alejandro	Oldfield, Matthew	Penzel, Thomas
Meste, Olivier	Murai, Akihiko	Omurtag, Ahmet	Perdikis, Serafeim
Meunier, Jean	Muravchik, Carlos	Ono, Takuya	Perera, Alexandre
Micera, Silvestro	murphey, todd	Opri, Enrico	Perez-Rathke, Alan
Michmizos, Konstantinos	Mussa-Ivaldi, Ferdinando	Oralkan, Omer	Peroni, Marta
Migeotte, Pierre-François	Myers, Lance J	Ordenez, Juan Sebastian	Perreault, Eric

Perrin, Florence	Ramos Murguialday, Ander	Salcudean, Septimiu E.	Shidahara, Miho
Peruzzi, Agnese	Ranganathan, Rajiv	Salgaonkar, Vasant	Shim, Eun Bo
Pery, Emilie	Rangayyan, Raj	Salinari, Serenella	Shimizu, Shuji
Peterchev, Angel V	Ranta, Radu	Salman, Inayat	Shin, Jungwook
Peterlik, Igor	Rastgaar, Mohammad	Salvado, Olivier	Shinohara, Toshihiro
Petit, Yvan	Ravazzani, Paolo	Salvador, Ricardo	Shiraishi, Yasuyuki
Petković, Bojana	Redmond, Stephen James	Sameshima, Koichi	Shirazi, Reza
Petroff, Neil	Reed, Kyle	Sanati Nezhad, Amir	Shirota, Camila
Petti, Manuela	Reggiani, Monica	Sanchez, J. Miguel	Shojaei, Iman
Pfeifer, Serge	Regolini, Jacopo	Sanchez, Carlos	Shou, Guofa
Pham, Tuan D.	Rematska, Georgia	Sánchez, Clara I.	Shute, Jonathan
Phillips, Daniel	Reni, Gianluigi	Sanchez, Justin C.	Shvartsman, Misha
Phlypo, Ronald	Reumann, Matthias	Sanchez, Natalia	Sidky, Emil
Pichler, Elgar	Reuss, James	Sandberg, Frida	Siggers, Jennifer
Pierobon, Massimiliano	Reynolds, Hayley Maria	Sanders, Teresa	Signorini, Maria G.
Pietka, Ewa	Rezaei, Masoud	Sander-Thömmes, Tilmann H.	Sijobert, Benoît
Pilt, Kristjan	Rezzoug, Nasser	Sandham, William	Sikdar, Siddhartha
Pinna, Gian Domenico	Richter, Ulrike	Sanei, Saeid	Silveira, Margarida
Piovesan, Davide	Riener, Robert	Sanguineti, Vittorio	Sima, Diana
Pirogova, Elena	Rieta, J. J.	Sankaranarayanan, Meena	Simon, Antoine
Pisarello, Maria Ines	Rigoldi, Chiara	Santos, Andres	Simpson, David Martin
Pistorius, Stephen	Rincon Gonzalez, Liliana	Sarac, Omer Sinan	Singh, Tarkesh
Platzer, Dieter	Rincon, Francisco	Sarma, Sridevi V.	Singh, V.R.
Plomp, Gijs	Rivet, Bertrand	Sarraf Shirazi, Samaneh	SKM, Varadhan
Plourde, Eric	Riviere, Cameron N.	Sarrut, David	Skounakis, Emmanouil
Podobnik, Janez	Rix, Hervé, Henri	Sarunic, Marinko	Skubec, Marjorie
Pohl, Mauricio	Roa, Laura M.	Sassi, Roberto	Slavens, Brooke
Pohlmeyer, Eric A.	Robinson, Brian	Sasso, magali	Sluiter, Victor Ijzebrand
Pollonini, Luca	Roby-Brami, Agnes	Sathia Narayanan, M.	Slutzky, Marc
Poon, Carmen CY	Rocha, Ana Paula	Sauter-Starace, Fabien	Smith, Barbara
Poosapadi Arjunan, Sridhar	Rocon, Eduardo	Sawan, Mohamad	Smith, David
Pop, Petre Gavril	Rodger, Damien C.	Sazonov, Edward	Smith, Lauren
Popescu, Mihail	Rodriguez Presedo, Jesus M.	Scaglione, Alessandro	Snider, Joseph
Popovic Maneski, Lana	Rodriguez, Jose Felix	Scalco, Elisa	Soda, Paolo
Popovic, Mirjana	Romero, Sergio	Schaefer, Gerald	Sohn, Kwanghyun
Poppendieck, Wigand	Roney, Caroline	Schena, Emiliano	Solana, Javier
Porta, Alberto	Rosa, Paulo	Schettini, Francesca	Solà-Soler, Jordi
Positano, Vincenzo	Rosenstein, Jacob	Schiek, Michael	Soltanian-Zadeh, Hamid
Postolache, Octavian	Rossel, Olivier	Schlotthauer, Gaston	Soncini, Monica
Postolache, Octavian	Roula, Mohammed Ali	Schreier, Guenter	Song, Dong
Potkay, Joseph	Rouse, Elliott	Schroeder, Rico	Song, Jiahui
Pourmodheji, Hossein	Rousseau, François	Schulz, Steffen	Song, Yoon-Kyu
Poza, Jesus	Roux, Christian	Schumann, Steffen	Sornmo, Leif
Prakash, Punit	Ruan, Su	Scilingo, Enzo Pasquale	Soulier, Fabien
Prasad, Girijesh	Ruddy, Bryan	Sclocco, Roberta	Souris, Jeffrey
Preissl, Hubert	Rufer, Libor	Secoli, Riccardo	Spampinato, Concetto
Prisk, Gordon Kim	Ruggeri, Alfredo	Seip, Ralf	Spanias, John
Psarologou, Adamantia	Ruiz Fernandez, Daniel	Seker, Huseyin	Spincemaille, Pascal
Puentes, John	Ruiz-Correa, Salvador	Sekine, Masaki	Spyropoulos, Basile
Pueyo, Esther	Ruther, Patrick	Sen, Anish	Squeri, Valentina
Pun, Sio Hang	Rutkowski, Tomasz	Seo, Chi Hyung	Sredar, Nripun
Puthanmadam Subramaniyam, Narayan	Ryan, Thomas	Seo, Jong Mo	Staib, Lawrence H.
Qi, Jinyi	S. Aghaei, Amirhossein	Serbes, Gorkem	Stanley, Andrew
Qian, Kai	S. F. R. Rodrigues, Suelia	Serpedin, Erchin	Starc, Vito
Qiang, Bo	Sabatini, Silvio P.	Sershen, Cheryl	Stieglitz, Thomas
Qiu, Yihong	Sacchi, Lucia	Sessa, Salvatore	Stienen, Arno
Queener, Hope	Sadleir, Rosalind	Seydnejad, Saeid	Stortelder, Teun
Quitadamo, Lucia Rita	Saijo, Yoshifumi	Shahdoost, Shahab	Storti, Silvia Francesca
Rabotti, Chiara	Saini, B. S.	Shahidi Zandi, Ali	Stramaglia, Sebastiano
Rajadhyaksha, Milind	Sajda, Paul	Shahriari, Yalda	Struzik, Zbigniew R.
Rajasekaran, Vijaykumar	Sakai, Koji	Shamir, Reuben	Stylios, Chrysostomos
Rajpoot, Nasir	Sakkalis, Vangelis	Shamsollahi, Mohammad B.	Su, Kaiqi
Ramaswamy, Palaniappan	Saku, Keita	Shang, Weijian	Su, Ran
Ramat, Stefano	Sala, Pilar	Sharp, Ian	Su, Steven Weidong
	Salarian, Arash	Shastri, Dvijesh	Suaning, Gregg
	Salazar Afanador, Addisson	Shewokis, Patricia A	Suarez-Antola, Roberto

Suarez-Antola, Roberto	Ticcinelli, Valentina	Vegas-Sanchez-Ferrero, G.	Wheeler, Bruce
Subramaniam, Karthik	Tigra, Wafa	Velazquez, Ramiro	Whitmire, Eric
Sugimachi, Masaru	Tkacz, Ewaryst	Veltink, Peter	Wibral, Michael
Sugimoto, Masahiro	Tognarelli, Selene	Ventouras, Errikos	Widjaja, Devy
Sugita, Norihiro	tognetti, alessandro	Verdu, Gumersindo	Wiest, Joachim
Sukal, Theresa	Tognola, Gabriella	Verdú, Gumersindo	Williams, Cranos
Sukno, Federico	Tokuda, Takashi	Verghese, George	Wissenwasser, Jürgen
Sultanov, Renat	Tome, Ana Maria	Verros, Stergios	Witte, Herbert
Sulzer, James	Tomlinson, Tucker	Veta, Mitko	Witte, Russell
Summa, Susanna	Tong, Kai Yu, Raymond	Vidal Aguiar, Juan Carlos	Wojtusich, Janis
Summers, Ronald	Tong, Shanbao	Vidaurre, Carmen	Wolf, Didier
Sun, Changming	Toppi, Jlenia	Vides, Silvia	Wolf, Werner
Sun, Yu	Töreyin, Hakan	Vigario, Ricardo	Wollstadt, Patricia
Sunagawa, Kenji	Torkaman, Giti	Vigmond, Edward	Wolpert, Seth
Sund, Torbjörn	Torres, Abel	Viik, Jari	Wong, Damon
Sup, Frank	Torres, Sebastian	Vila, Xose A.	Wong, Kelvin
Suresh, Vinod	Torricelli, Alessandro	Villa Parra, Ana Cecilia	Wongsawat, Yodchanan
Susac, Ana	Tortora, Giuseppe	Villalba, Elena	Woo, Eung Je
Sutton, Bradley P.	Toschi, Nicola	Villani, Valeria	Woo, Jonghye
Suzuki, Tatsuto	Toyoda, Shuichi	Villarreal, Dario Jose	Wood, Nathan
Suzuki, Yasuyuki	Tran, Yvonne	Villazana, Sergio	Woodfield, Tim
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Swartz, Ashley	Trejos, Ana Luisa	Vinet, Alain	Wright, Steven M.
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Synnott, Jonathan	Tropea, Peppino	Vivanti, Refael	Wu, Fan
Taati, Babak	Troyk, Philip	Vollero, Luca	Wu, Jian
Taberner, Andrew	Trucco, Emanuele	Voss, Andreas	Wu, Ming
Tacchino, Giulia	Truong, Danh	Vozzi, Giovanni	Wu, Yin
Tafreshi, Reza	Tsalatsanis, Athanasios	Vullings, Rik	Wu, Yunfeng
Tagliamonte, Nevio Luigi	Tsiknakis, Manolis	Wada, Takahiro	Wu, Ziyue
Tahayori, Bahman	Tsizin, Evgeny	Wahl, Daniel	Xiao, Ran
Tahmasebi, Amir M.	Tsouri, Gill R	Wahle, Andreas	Xiaoming, Zhang
Takahashi, Kazutaka	Tsuji, Toshio	Wakeling, James	Xie, Hong-Bo
Takavoli, Mahdi	Tsujiuchi, Nobutaka	Walsh, Lorcan	Xie, Yang
Takeda, Sunao	Tsukamoto, Sosuke	Walsh, Michael	Xing, Jida
Taki, Hirofumi	Turaga, Pavan	Waluyo, Agustinus Borgy	Xiong, Wei
Takizawa, Kenichi	Turcza, Pawel	Wan Harun, Wan Abdul R.	Xu, Da
Tam, Nicoladie	Ubeda, Andres	Wan, Justin	Xu, Huijing
Tamagnone, Irene	Uchiyama, Takanori	Wang, Aihua	Xu, Lei
Tamura, Toshiyo	Uemura, Kazunori	Wang, Dafang	Xu, Lisheng
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Tanaka, Toshihisa	Ulukaya, Sezer	Wang, Guobao	Yadav, Rajeev
Tanaka, Yoshiyuki	Umaphy, Karthikeyan	Wang, Haifeng	Yamada, Kenji
Tang, Wenlong	Ün, Mustafa Kerem	Wang, Jaw-Lin	Yamaguchi, Ikuhiro
Tanougast, Camel	Unguez, Graciela	Wang, Jianqing	Yamakoshi, Takehiro
Tanskanen, Jarno M. A.	Ungureanu, G. Mihaela	Wang, Junchen	Yamamoto, Yoshiharu
Tanzi, Maria Cristina	Urban, Matthew	Wang, Kun	Yamashita, Kazuhiko
Tarvainen, Mika	Ursino, Mauro	Wang, Lei	Yambe, Tomoyuki
Tavakolian, Kouhyar	Vaezy, Shahram	Wang, Michael Cai	Yana, Kazuo
Tavanapong, Wallapak	Vaghefi, Ehsan	Wang, Shouyan	Yang, Jian
Taya, Fumihiko	Vairavan, Srinivasan	Wang, Yijun	Yang, Jin
Teichmann, Daniel	Valdes-cristerna, Raquel	Warren, Steve	Yang, Li
Teixeira, Ana Rita	Valencia Murillo, Jose F.	Warrick, Philip A.	Yang, Liangjing
Teixeira, César	Valenza, Gaetano	Washizawa, Yoshikazu	Yang, Sungwook
Telkes, Ilknur	Valero-Cuevas, Francisco	Watabe, Hiroshi	Yang, Xiaofeng
Telló, Marcos	Vallverdu, Montserrat	Watson, Meghan	Yaniv, Ziv
Temereanca, Simona	van Gils, Mark	Weber, Ewald	Yano, Kenichi
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Tewari, Shivendra	Vanhoestenbergh, Anne	Wen, Di	Yetik, Imam Samil
Thielscher, Axel	Varghese, Tomy	Wen, Lingfeng	Yilmaz, Atila
Thong, Tran	Varnfield, Marlien	Wessel, Niels	Yin, Jie
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Tian, Jie	Värri, Alpo	Western, David	Yochum, Maxime
Tian, Wei	Vecchiato, Giovanni	Westwick, David	Yokoyama, Kiyoko

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Yoo, Paul	Zacur, Ernesto	Zhang, Songmao	Zhu, Cun
Yoshida, Hisashi	Zahlmann, Gudrun	Zhang, Yingchun	Zhu, Fansan
Yoshikawa, Naoya	Zanetti, John M.	Zhang, Yong	Zhu, Jack
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Yoshiyasu, Yusuke	Zariffa, Jose	Zhao, Bo	Zhu, Shao Ying
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Young, Aaron	Zerubia, Josiane	Zhao, Peng	Zink, Rob
Yousefi, Rasoul	Zervakis, Michalis	Zheng, Guoyan	Zoltowski, Mariusz, Leslaw
Ysehak Abay, Tomas	Zhang, Aili	Zhou, David	Zong, Chengzhi
Yu, Gene	Zhang, Chao	Zhou, Fengfeng	Zong, Wei
Yu, Wenwei	Zhang, Dingguo	Zhou, Huiyu	Zouridakis, George
Yu, Yih-Choung	Zhang, Guanqun	Zhou, Iris Yuwen	Zuo, Wangmeng
Yuan, Han	Zhang, Lei	Zhou, Jian	Zwiggelaar, Reyer
Yuan, Yading	Zhang, Qiang	Zhou, Jinghao	
Yuce, Mehmet	Zhang, Qin	Zhou, Yihang	

Editor's Notes

The 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society hosted an electronic paper submission process for the conference. It was the responsibility of the submitting Author to ensure the document was viewable and without errors that would prevent the Conference from including the paper in Digital Proceedings. In the event a paper was submitted that could not be viewed or printed properly, the Conference elected to only publish the abstract of the paper in the Proceedings.

All conference papers were peer-reviewed by experts chosen by the Conference Editorial Board for all contributed, invited and Special Session 4 page papers.

Theme Keynote Lecture

Human Brain Project – The Challenge for Medicine



Richard Frackowiak

Director, Department of Clinical Neuroscience
Head of Service of Neurology
CHUV University Hospital and Ecole Polytechnique Federale de Lausanne
Lausanne, Switzerland

13:45 – 14:30
Wednesday, 26 August 2015
Silver Room

Abstract

The traditional approach to determining disease nosology – eliciting symptoms and signs, creating clusters of like individuals and defining diseases primarily on those criteria has not generated fundamental breakthroughs in understanding sequences of pathophysiology mechanisms that lead to the repertoire of psychiatric and neurological diseases. We now know that a single gene mutation may present with multiple phenotypes, and vice versa, that a range of genetic abnormalities may cause a single phenotype. These observations lead to the conclusion that a deeper understanding is needed of the way changes at one spatial or temporal level of brain organisation (e.g., genetic, proteomic or metabolic) integrate and translate into others, eventually resulting in behaviour and cognition. The Human Brain Project is a massive collaborative effort, funded by the European Union, between basic and clinical neuroscientists and computer engineers. We aim to develop a working biological theory of the brain from the most basic level – its genes, to the most complicated – cognition, emotion, perception and action. Using data collected over decades, interrogated by radical new data-addressing protocols developed for the purpose, we will employ supercomputers to generate disease signatures based on a combination of clinical details and biological information. Neurologists and psychiatrists will use the results of data mining the masses of data in Europe’s hospital and research databases to develop new diagnostic schemas facilitating thus an era of precision medicine

Biographical Sketch

Richard Frackowiak holds a titular professorship at the Ecole Polytechnique Fédérale de Lausanne. He is a director of the EU’s “Human Brain Project” responsible for medical informatics. A pioneer of human brain imaging research he developed methods and applied them to investigate human brain structure and function relationships in health and disease. Currently he is pioneering collaboration between modern informatics and brain medicine in the HBP. His scientific output is highly cited with an h-index of 161. He has received the Ipsen, Wilhelm Feldberg and Klaus Joachim Zulch prizes. Formerly Foundation Professor of Cognitive Neurology at University College London (UCL), Director of the Department of Cognitive Studies (DEC) at the Ecole Normale Supérieure in Paris, Wellcome Trust Principal Clinical Research Fellow, Vice-Provost of UCL and Dean-Director of its Institute of Neurology, he also founded the Wellcome Department of Imaging Neuroscience and the FIL in 1994 where he is now an honorary professor. He finished his career in Lausanne where he created and headed the Department of Clinical Neurosciences at the Université de Lausanne (UNIL) and its Centre Hospitalier Universitaire Vaudois (CHUV) where he retains honorary appointments. Frackowiak has an MA and MD from Cambridge (Peterhouse), a DSc from London University, an honorary medical doctorate from Liege University. A Fellow of the Academies of Medical Sciences of the UK, France and Belgium, he is a member of the Academia Europaea and a foreign associate of the Institute of Medicine of the American Academies of Science and the Polish Academy of Sciences. He has served as president of the British Neuroscience Association and the European Brain and Behaviour Society and belongs to numerous national and European neurological societies. He was scientific advisor to the Director-General of INSERM in France and has held prestigious visiting professorships internationally, editorships and international society roles worldwide. He has always shown a commitment to Europe and had many advisory positions including chair of the Medical Sciences committee of Science Europe.

Theme Keynote Lecture

The Challenge of Understanding Human Brain Function: The Role of imaging in the BRAIN Project



Kamil Ugurbil, Ph.D.

Director, Center for Magnetic Resonance Research (CMRR)
McKnight Presidential Chair Professor
Depts. of Radiology, Neurosciences and Medicine
University of Minnesota

14:30 – 15:15

Wednesday, 26 August 2015
Silver Room

Abstract

BRAIN (Brain Research through Advancing Innovative Neurotechnologies) Initiative is a concerted research effort undertaken in the United States aimed at supporting development and application of new tools and technologies for revolutionizing our understanding of the brain. It was launched following the momentum of the Human Connectome Project (HCP), an ambitious effort supported by the National Institutes of Health (NIH), USA. Both initiatives focus on mapping neural circuits, ultimately for understanding the complexity of the human brain in achieving diverse array of behaviors, perceptions, thoughts, and emotions. HCP aims to generate a comprehensive description of the connections among gray matter location in the human brain at the scale of ~ 1 cubic mm, using magnetic resonance (MR) techniques; it has achieved human brain images with unprecedented temporal and spatial resolution. The ambitions in the BRAIN initiative is to surpass these substantially, and supplemented with animal models studies, to reach organizational scales beyond our reach with current technologies.

Biographical Sketch

Kamil Ugurbil currently holds the McKnight Presidential Endowed Chair Professorship in Radiology, Neurosciences, and Medicine and is the Director of the Center for Magnetic Resonance Research (CMRR) at the University of Minnesota. Prof. Ugurbil was educated at Robert Academy, Istanbul (high school) and Columbia University, New York, N.Y. After completing his B.A. and Ph.D. degrees in physics, and chemical physics, respectively, at Columbia, he joined AT&T Bell Laboratories in 1977, and subsequently returned to Columbia as a faculty member in 1979. He moved to the University of Minnesota in 1982 where his research in magnetic resonance led to the evolution of his laboratory into an interdepartmental and interdisciplinary research center, the CMRR. The work that introduced magnetic resonance imaging of neuronal activity in the human brain (known as fMRI) was accomplished independently and simultaneously in two laboratories, one of which was Ugurbil's in CMRR. Since then, his focus has been on development of methods and instrumentation capable of obtaining high resolution and high accuracy functional information in the human brain, targeting neuronal organizations at the level of cortical columns and layers; this body of work has culminated in unique accomplishments such as the first time imaging of orientation columns in the human primary visual cortex, as well as numerous new instrumentation and image acquisition approaches for functional and anatomical neuroimaging at very high magnetic fields.

Theme Keynote Lecture

Machines and Microcosms. Leonardo on the Human Body



Domenico Laurenza

bgC3, Kirkland-Seattle, USA
Museo Galileo, Firenze, Italy

17:15 – 19:00

Wednesday, 26 August 2015
Silver Room

Abstract

The lecture will present three original forms of interaction between biological knowledge, technology, and natural philosophy in Leonardo. First, the “mimetic” link between Leonardo’s anatomical studies and various other areas of his work will be considered. Anatomical knowledge allowed Leonardo to realize a radical and unprecedented “mimesis” or imitation of nature in art and in technology. For example, on the one hand, he started to study muscles, bones, and physiognomy in order to achieve a correct representation of the human body and its movements in art, while, on the other, he studied the comparative anatomy of humans and animals in view of the flying machine. Vice-versa, we will see how the artifact, i.e. a machine and/or an artistic work, is sometimes used by Leonardo as an explanatory model of biological processes. For instance, a stove helps him to understand the heart-lung system; “mechanical elements” (screws, pulleys, scales, gears, etc.) explain the muscle-skeletal system; casting processes help Leonardo to understand the transformation of fish and shells into fossils and so on. The third and final aspect considered will be how anatomy and physiology become explanatory models that allow more general phenomena in nature to be understood, how, for instance, blood circulation in the human body helps him to understand the water cycle in the “body of the earth” within the general analogy between microcosm (man) and macrocosm (world).

Biographical Sketch

Domenico Laurenza is a science historian with interest in the history of art and visual culture. In particular he is an expert of Leonardo da Vinci scientific work and of the history of anatomy and technology in the Renaissance. He is now devoting a substantial portion of his attention to the history of geology and paleontology in 16th-19th centuries. He was trained in Medicine (University of Naples) and Historical Sciences (PhD, Scuola Superiore di Studi Storici, San Marino, 1996). He is principal researcher of bgC3, Bill Gates Company 3, Seattle, US and scientific consultant of Museo Galileo, Florence. He has taught in several universities worldwide, including the University of Florence and McGill University, Montreal and has been fellow of several scientific institutions, including the Warburg Institute in London, the Metropolitan Museum of Art in New York and the Italian Academy at Columbia University, New York. He is the author of many books; available in English are: *Leonardo on Flight* (John Hopkins University Press 2007), *Leonardo’s Machines: Da Vinci’s Inventions Revealed* (David & Charles, 2006), *Art and Anatomy in Renaissance Italy: Images from a Scientific Revolution* (The Metropolitan Museum of Art and Yale University Press, 2012) and *Leonardo’s Da Vinci’s Codex Leicester. A Critical Edition* (in collaboration with Martin Kemp, Oxford University Press, forthcoming).

Theme Keynote Lecture

The New Requirements to Fully Leverage the Full Value of the Medical Device Industry for Patients, Health Care Professionals and Health Care Systems



Serge Bernasconi

Chief Executive Officer
MedTech Europe, Eucomed, EDMA
Brussels, Belgium

11:30 – 12:30
Thursday, 27 August 2015
Silver Room

Biographical Sketch

Serge Bernasconi is Chief Executive Officer of MedTech Europe (the Alliance of European medical technology industry associations), Eucomed (the European medical devices industry association) and EDMA (the European in vitro diagnostics industry association). Mr Bernasconi has more than 30 years experience in the world of pharmaceuticals and medical devices, working in companies such as Johnson & Johnson, Schering Plough in US and Europe, and more recently Medtronic. In his capacity as President & International Regional Vice President of Medtronic France, he was elected President of APIDIM (The French Association for the Promotion of Innovation in Medical Devices), and Vice President and Treasurer of SNITEM (French Medical Technology Industry Association).

Theme Keynote Lecture

Mechanical Aspects in the Fight of Immune Cells with Bacterial Infections



Prof. Dr. h.c. Viola Vogel

Laboratory of Applied Mechanobiology
Department of Health Sciences and Technology ETH Zurich

11:30 – 12:30

Thursday, 27 August 2015

Space 1 & 2

Abstract

Many strategies have been applied in the last decade to fight bacterial infections with drugs that were primarily designed to either kill bacteria, including antibiotics, or more recently to prevent their adhesion to surfaces and host tissues. Little attention though has been given to ask how these strategies might affect the ability of our immune cells to fight bacterial infections. To clear pathogens from host tissues or from the surfaces of implants, macrophages have to first recognize their prey, then hold on to it and finally pull with sufficient force to enable a phagocytotic uptake. Unexpectedly, novel insights into the nanomechanical aspects how macrophages forcefully play with their prey revealed some adverse and unanticipated side effects how common antibacterial drugs impair the ability of our own immune cells to fight infections.

Biographical Sketch

Viola Vogel is a Professor in the Department of Health Science and Technology heading the Laboratory of Applied Mechanobiology at the ETH Zürich, Switzerland. Trained as a Physicist and with her graduate research conducted at the Max-Planck Institute for Biophysical Chemistry, she spent two years as postdoctoral fellow at the University of California Berkeley. As faculty member, she joined the Department of Bioengineering at the University of Washington/Seattle in 1990 and moved there through the ranks to Full Professor. She was the Founding Director of the Center for Nanotechnology at the University of Washington (1997-2003) prior to her move to Switzerland in 2004. She exploits nanotechnology tools to decipher how bacteria and mammalian cells exploit mechanical forces to recognize and respond to material properties and their native environments. Her discoveries in single molecule and cell mechanics and how protein stretching switches their function, as well as in the field of mechanobiology have a wide range of technical and medical implications. In collaboration with clinicians, several technologies are currently carried towards preclinical studies.

Theme Keynote Lecture

Artificial Pancreas: Models, Signals and Control



Claudio Cobelli

Department of Information Engineering,
University of Padova, Italy

11:30 – 12:30

Thursday, 27 August 2015

Brown 3

Abstract

People with diabetes face a life-long optimization problem: to maintain strict glycemic control without increasing their risk for hypoglycemia. Since the discovery of insulin in 1921, the external regulation of diabetes became an interdisciplinary endeavor, which included a significant bioengineering component. Over the past 50 years the diabetes technology field progressed remarkably through continuous subcutaneous insulin infusion, mathematical models and computer simulation of the glucose system, real-time continuous glucose sensors, and control algorithms driving closed-loop control systems known as the “artificial pancreas” (AP). I will discuss how these bioengineering developments have accelerated AP research and will focus in particular on three key ingredients: the first computer simulator accepted by FDA as a substitute to animal trials in the design of diabetes optimization strategies, the smart glucose sensor concept, and the model predictive control strategies. Following a number of in-clinic trials, the quest for wearable ambulatory AP systems is now under way, with prototypes tested in outpatient and home studies during the past four years. Outpatient results are exciting and show that AP – still not a cure – is arguably the most promising bioengineering treatment of diabetes to date.

Biographical Sketch

Claudio Cobelli is Full Professor of Biomedical Engineering, University of Padova, Italy. He has been Chairman of Graduate Program in Biomedical Engineering (2000-2009) and Ph.D. Program in Bioengineering (200-2011), University of Padova. His main research activity is in modeling and identification of physiological systems, especially metabolic systems. His research is supported by NIH, JDRF and European Community. He has published 450 papers in internationally refereed journals, co-author of 8 books and holds 11 patents. He is Associate Editor of IEEE Transactions on Biomedical Engineering and Journal of Diabetes Science & Technology. He is on the Editorial Board of Diabetes and Diabetes Technology & Therapeutics. Dr. Cobelli has been Chairman (1999-2004) of Italian Bioengineering Group; Chairman (1990-1993 & 1993-1996) of IFAC TC on Modeling and Control of Biomedical Systems, and member of IEEE EMBS AdCom Member (2008-2009). He has been a member of the Gruppo di Esperti della Valutazione (GEV), Area 09, of the Agenzia Nazionale per la Valutazione del Sistema Universitario e della Ricerca (ANVUR) for the period 2011-2013. He is President of the Organo di Indirizzo of the Azienda Ospedaliera Università di Trieste. In 2010 he received the Diabetes Technology Artificial Pancreas Research Award. He is Fellow of IEEE, BMES and EAMBES

Theme Keynote Lecture

Multi-Scale Image-Based Modeling of the Failing Heart: From Cell to Patient



Andrew D. McCulloch

Distinguished Professor of Bioengineering and Medicine
Jacobs School Distinguished Scholar
University of California San Diego

11:30 -12:30
Friday, 28 August 2015
Silver Room

Abstract

Multi-scale models of the heart have been developed that integrate both functionally across biomechanical, electrophysiological and regulatory functions and structurally across physical scales of organization from molecule to organ system. Imaging is central to the development of multi-scale cardiac models at all scales of biological organization, especially in disease states such as heart failure where structural remodeling of cells, tissue and the whole heart are all key contributors to mechanical dysfunction and arrhythmia risk. Here, we illustrate the development and application of these imaged-derived computational models to improving understanding and treatment of heart disease using several examples including: Microanatomically detailed models of subcellular and cellular biophysics generated from 3D electron tomograms; multi-scale models of murine ventricular mechanics derived from mouse cardiac magnetic resonance imaging; and patient-specific computational models of human atrial fibrillation and dyssynchronous heart failure to improve diagnosis and treatment efficacy.

Biographical Sketch

Dr. Andrew McCulloch is Distinguished Professor of Bioengineering and Medicine and Jacobs School Distinguished Scholar at the University of California San Diego, where he joined the faculty in 1987. He is member of the UCSD Institute for Engineering in Medicine, the Qualcomm Institute, a Senior Fellow of the San Diego Supercomputer Center, a Principal Investigator of the National Biomedical Computation Resource and Co-Director of the Cardiac Biomedical Science and Engineering Center. Dr. McCulloch was educated at the University of Auckland, New Zealand in Engineering Science and Physiology receiving his Ph.D. in 1986. Dr. McCulloch is a Fellow of the American Institute for Medical and Biological Engineering and currently serves as Associate Editor of PLoS Computational Biology and co-Editor-in-Chief of Drug Discovery Today: Disease Models. He is chair of the Physiome and Systems Biology Committee of the International Union of Physiological Sciences. Dr. McCulloch's lab uses experimental and computational models to investigate the relationships between the cellular and extracellular structure of cardiac muscle and the electrical and mechanical function of the whole heart during ventricular remodeling, heart failure and arrhythmia.

Theme Keynote Lecture

EU Strategy on ICT for Ageing Well



Peter Wintlev-Jensen

Deputy Head of Unit, Digital Social Platforms, DG CONNECT
European Commission
Brussels, Belgium

11:30 – 12:30
Friday, 28 August 2015
Space 1 & 2

Abstract

Higher demand for better health and social care services, demographic change and increase of chronic diseases challenge the sustainability of our systems for health and care. To successfully face up to this challenge, we need systemic changes in care systems: more focus on prevention, early risk detection and personalised care, empowerment of citizens to remain independent, self-manage their health and wellbeing as well as better coordination of health and social care. The demographic change also offers great opportunities for new products and services meeting the needs of an ageing population to remain active and independent for as long as possible. ICT based products and services play a major role in turning these challenges into a 3000B€ opportunity for Europe. EU policies in ICT for Active and Healthy Ageing want to achieve a triple win for Europe through ICT research and innovation and through promotion of innovation to accelerate the uptake of innovation, in policy areas such as health, social and regional policies:

1. Increased quality of life and wellbeing for citizens,
2. Making our health and social care systems sustainable,
3. Boosting growth and create new jobs as a global opportunity in new ICT based products and services targeting health, active ageing and an emerging “silver economy”.

Biographical Sketch

Peter Wintlev-Jensen is currently deputy Head of Unit in the European Commission DG Communications Networks and Technologies, responsible for development of policy and research strategy related to Information and Communication Technologies and Demographic Ageing. He has been involved in this field for the last 8 years, including the European Joint Research Programme on Ambient Assisted Living and its continuation under Horizon 2020, the ICT research and innovation agenda on Ageing in the 7th Framework Programme and in Horizon 2020, the Joint Programming Initiative with Member States concerning multi-disciplinary research on Demographic Change entitled “More Years – Better Lives” and the European Innovation Partnership on Active and Healthy Ageing. Before joining the European Commission in 1990 he worked in the telecommunications industry as project manager in Denmark and US in a number of large industrial computing and communications projects, e.g. with American Airlines, Delta Airlines, EDS. He has an Engineering degree in Electronic Systems from Aalborg University in Denmark.

Theme Keynote Lecture

Bionics Engineering: Achievements and Challenges



Paolo Dario

Scuola Superiore Sant'Anna, Pisa, Italy

11:30 – 12:30

Saturday, 29 August 2015

Space 1 & 2

Abstract

Bionics engineering is a new frontier of biomedical engineering. The term “bionics” is increasingly used at international level to indicate the research area which integrates the most advanced bioengineering and robotics technologies with life sciences, such as medicine, biology and neuroscience, with the ultimate goal of inventing and deploying a new generation of biomimetic machines, human-centered healthcare and (more generally) assistive technologies. In this talk the history, definitions and evolution of bionics engineering will be illustrated, and numerous examples will be given of research lines and medical applications, including bio-inspired and biomimetic robots that are capable of reproducing both human and animal functions; systems able to mimic the natural senses; neural prostheses and neural interfaces; advanced prosthetic and orthotic devices for movement assistance and rehabilitation of disabled persons; systems for minimally invasive therapy and regenerative medicine; social robots and smart environments for assisted living, active ageing and wellbeing; and artificial organs.

Biographical Sketch

Paolo Dario is Professor of Biomedical Robotics, Director of the BioRobotics Institute and Director of the PhD Program in BioRobotics of the Scuola Superiore Sant'Anna, Pisa, Italy. He received his Dr Eng Degree in Mechanical Engineering from the University of Pisa and has been and is visiting researcher, professor and fellow at various universities and scientific institutions in Europe, USA and Asia. His current research interests are in the field of bio-robotics and bionics, and include surgical robotics, micro/nano devices for endoscopy, bio-inspired devices and systems, and assistive and companion robots. Paolo Dario is the author of 330+ journal publications (Scopus), his H-Index is 49 (Scopus), and in March 2015 he was identified by the IEEE Robotics and Automation Magazine as the second most influent scientist in robotics worldwide according to degree centrality and bibliometric criteria. He is co-author of 50+ international patents and co-founder of 5 start-up companies. Paolo Dario has been the coordinator of many large national and European projects. He served as Editor-in-Chief, Associate Editor and member of the Editorial Board of many international journals in biomedical engineering and in robotics. Paolo Dario is an IEEE Fellow and a Fellow of the European Society on Medical and Biological Engineering. He served as President of the IEEE Robotics and Automation Society and is currently the Chair of the IEEE EMBS Technical Committee on BioRobotics.

Theme Keynote Lecture

Transformation of Big Data into Clinically Actionable Knowledge: Supporting the Personalized Medicine revolution



Elisabeth Worthey, PhD

Assistant Professor, Pediatrics,
Director of Genomic Informatics, Human and Molecular Genetics Center,
Medical College of Wisconsin

11:30 – 12:30

Saturday, 29 August 2015
Silver Room

Abstract

Despite significant advances in our understanding of the basis of disease, the cause underpinning the majority of human disorders remains fully or partially unknown. Identification of molecular changes provides an opportunity to understand their role in health and disease, and in a clinical setting to apply that understanding to prevention, diagnosis, and treatment. The advent of genome-wide sequencing has altered how molecular changes are identified and has transformed Molecular Diagnostics in Genetics and Oncology. It is now exerting change in other clinical and preclinical areas including clinical trial cohort selection and analysis, biomarkers development, and personalised therapeutics. Such advances require development of a Data Science model that emphasizes extraction, integration, analysis, and presentation of massive numbers of data points; thousands of millions of molecular changes, EHR extracted clinical information, clinical trial data, genotype to phenotype mappings, publications, and protein interaction and pathways data. The solution is a systems approach powered by Big Data that requires application of appropriate hardware, programming techniques, and analytical methodologies. The goal is identification of the disease etiology, progression, and/or outcome in an individual patient with subsequent generation of information for prevention, diagnosis, and/or treatment. I will illustrate with examples where this approach was applied resulting in novel insights and better clinical decision making.

Biographical Sketch

Assistant Professor; Department of Pediatrics and Director, Genomic Medicine Program, Human and Molecular Genetics Center, Medical College of Wisconsin Adjunct Assistant Professor; Departments of Computer Science and Health Informatics and Administration, UW Milwaukee Co-Founder and VP Informatics, Genomic Healthcare Innovations, Milwaukee, WI

Dr. Worthey received her PhD in Genetics from the University of London in 2003 and completed her post-doctoral fellowship at the University of Washington, working on both Eukaryotic Genomics and other high throughput “Omics” projects. In 2008, after working as a Project Manager for Merck & Co., Dr. Worthey joined the Medical College of Wisconsin (MCW) and became an Assistant Professor of Pediatric Genomics in 2010. Dr. Worthey became Director of Genomic Informatics for the Human and Molecular Genetics Center at MCW in 2012. She also held an Adjunct Assistant Professorship in the Computer Science Department at the University of Wisconsin – Milwaukee. She recently moved to the Hudson Alpha Institute for Biotechnology where she is a Faculty Investigator and Director of Bioinformatics core and a member of the Hudson Alpha – UAB Genomic medicine program. Dr. Worthey is an expert in molecular genetics as well as in comparative, structural, and functional genomics, population and evolutionary genetics, biostatistics, network and pathway analysis, quantitative genetics, and bioinformatics. Her main focus is on the application of genomics approaches for Molecular Diagnostics and to aid in understanding mechanisms underlying human disease. She was first author on arguably the first case that used a Genomic Medicine approach to alter the medical care of

a patient. As part of this work her group both develops and implements tools and algorithms to support clinical and translational use of Genomic data in both rare and complex disease. She has provided expertise on this topic to a number of national organisations in the US including the CDC, CAP, TATRC, and the NIH and has been invited to share her work at numerous national and international meetings.



37TH ANNUAL INTERNATIONAL CONFERENCE OF THE
IEEE Engineering in Medicine and Biology Society
MiCo - Milano Conference Center - Milan, Italy, August 25-29 2015

EMBC'15 Special Symposium:

GRAND CHALLENGES IN BRAIN RESEARCH IN EUROPE AND USA

Wednesday, August 26th, 2015

13.45-17.00 h

MiCo – Milano Conference Center

Silver Room, Level 2-North Wing

Chairman: **Bruce Wheeler**

Department of Biomedical Engineering, University of Florida, Gainesville, FL, USA, Past President of IEEE-EMB Society

Keynote Lecturers:

13.45-14.30 Richard Frackowiak

CHUV University Hospital and Ecole Polytechnique Federale de Lausanne, Switzerland, Co-Director Future Medicine, Human Brain Project, European Union

14.30-15.15 Kamil Ugurbil

Center for Magnetic Resonance Research (CMRR), Depts. of Radiology, Neurosciences and Medicine, University of Minnesota, MN, USA, Member of the Advisory Committee of BRAIN Project, USA

Discussants: **15.30-17.00**

Emery Brown, Computational Neuroscience, Department of Brain and Cognitive Sciences Massachusetts Institute of Technology, Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital, Harvard Medical School, Boston, USA

José Principe, Computational NeuroEngineering Laboratory, University of Florida, Gainesville, USA

Bin He, Institute for Engineering in Medicine, University of Minnesota, Minneapolis, MN, USA

Antonio Malgaroli, Human Physiology, Università Vita e Salute, Milano, Italy

With the participation of the Keynote Speakers, **Richard Frackowiak** and **Kamil Ugurbil**

This Symposium, inserted into the Program of EMBC'15, will discuss the relevant motivations of two important research projects with major funding at the two shores of the Atlantic Ocean in the area of Brain and Neurosciences (*Human Brain Project* in European Union and *BRAIN Initiative* in the USA) after the Keynote presentations of the two Project Chairmen. Distinguished Discussants will further compare their vision in the future of this fundamental research field, by remarking the important expected fallouts in Biomedical Engineering discipline as well as in neurophysiological studies and in clinical applications.

Frontiers of Biomedical Engineering Symposia at EMBC 2015

Special Session ThET12
 Room: White 1

At EMBC 2015, we will continue the set of Symposia on the Frontiers of Biomedical Engineering, which is slightly different from the rest of the conference.

The goal of this Symposium format is to present to the biomedical community the current needs and future directions of the Technical Committees (TCs) of the IEEE EMB Society. The TCs are the foundations for the technical vitality and leadership of the IEEE EMB Society. Therefore these presentations are different from a conventional oral presentation because they relate to a broader discussion of each technical area and how the organization of the research topics is happening.

If you are interested in learning the important EMB technical topics, and in participating in defining the future technical areas of biomedical engineering, then you should attend this Symposium.

The speakers are the TC Chairs who are coordinating and promoting the innovation that is happening in our society. They will provide a 25-minute (+5 minutes for questions) outline of what each TC is doing, how it is organized, what has been accomplished, what are the bottlenecks and the future directions for research.

This is also an opportunity for the conference participants to interact with the technical leaders of the society, and hopefully volunteer to participate in the technical activities of the IEEE EMB Society.

Schedule

Thursday 27	(14:30- 16:00)	Thursday 27	(17:30- 19:30)
14:30	Welcome: Jose Principe	17:30	Welcome: Jose Principe
14:30 – 15:00	Biomedical and Health Informatics Presenter: May Wang	17:30 – 18:00	NeuroEngineering Presenter: Metin Akay
15:00- 15:30	Biomedical Imaging and Image Processing Chair: Elsa Angelini	18:00 – 18:30	Therapeutic Systems and Technologies Presenter: Dieter Haemmerich
15:30- 16:00	Biomedical Signal Processing Presenters: Fabio Bablioni and Laura Astolfi	18:30- 19:00	Wearable Biomedical Sensors and Systems Presenter Walt Besio
Thursday 27	(16:00- 17:30)	19:00- 19:30	Computational Biology and the Physiome Chair: Grace Peng
16:00	Welcome: Jose Principe		
16:00 – 16:30	BioRobotics Presenter: Paolo Dario		
16:30 – 17: 00	Cardiopulmonary Systems Presenter: Thomas Penzel		
17:00 – 17:30	Nanotechnology and BioMEMS Presenters: Michele Khein and Esmail Jabbari		

Tutorials and Workshops

Full-Day Workshop

A Hands-on Approach to Neural Connectivity Inference Methods

08:30 - 17:30

Location: Amber 8

Registration Required

Organizer: Luiz A. Baccala, University of Sao Paulo
Koichi Sameshima, University of Sao Paulo

Speakers:

- Luiz A. Baccala, University of Sao Paulo
- Koichi Sameshima, University of Sao Paulo
- Maciej Kaminski, University of Warsaw, Poland

The objective of the workshop is provide a hands-on learning opportunity for using parts of the software distributed as part of the book “Methods in Brain Connectivity Inference through Multivariate Time Series Analysis” (2014) by CRC which we co-edited. In addition to examining in detail conceptual aspects associated to connectivity we intend to shorten the learning curve of potential users of connectivity analysis software in regard to inferential aspects and the possible caveats and pitfalls the user may encounter. Attendees who bring their own laptops will have the opportunity to process workshop examples and their own data and will benefit from discussing their results and modelling diagnostics with the workshop experts. Attendee provided Matlab/Octave licenses are required for those wishing to take part in the practical activities. Attendees are encouraged to bring data of their own which they will have the opportunity to process in the afternoon using laptops they bring.

Full-Day Workshop

3D Printing and Design for Biomedical Innovation: From Medical Need to Physical Parts & Solutions

08:30 - 17:30

Location: Amber 7

Registration Required

Organizer: B. Hecht, MIT, Cambridge, MA
Ayesha N. Khalid, Harvard Medical School, Boston MA, MIT Sloan School of Management, Cambridge

Speakers: TBA

This workshop presents the latest equipment, tools, materials, and computer-aided-design software systems that are being developed to apply 3D printing and additive manufacturing techniques for biomedical applications. Beginning with an understanding of design principles and how these are applied to biomedical needs, a range of examples and case studies will be presented. Techniques include the use of medical imaging to build patient-customized structures for surgery, implants, and orthopedics. The availability of distributed printing offers a transformative capability to deliver care in remote settings. The field of bionics and prosthetics is undergoing dramatic change in the ability to meet patient requirements. The emerging field of bioprinting is enabling radical research into how new drugs will interact with biological tissues and organs. Future directions are envisioned where synthetic organs and replacement parts will dramatically extend life. Invited talks from international leaders with a multidisciplinary background from medicine, research, healthcare delivery and industry will engage participants in an exchange of ideas for a wide variety of applications.

Full-Day Workshop

Practical Computer Modeling for Medical Device Development

8:30 - 17:30

Location: Amber 6

Registration Required

Organizer: Dorin Panescu, Advanced Cardiac Therapeutics, Inc, Santa Clara, CA
Dieter Haemmerich, Medical University of South Carolina & Clemson University

Speakers:

- Dieter Haemmerich, University of South Carolina
Overview of Applications of Computer Models for medical Devices and Therapies

- **Torben Paetz, Fraunhofer MeVis Institute for Medical Image Computing**
Finite Difference & Finite Element Methods
- **Niels Kuster, Swiss Federal Institute of Technology, ETH Zürich (ETHZ)**
Computable Functional Human Phantoms for Medical Device Modeling
- **Christian Rossmann, Materialise NV**
Hands-on Session: Patient-Specific Modeling and Biomechanics Analysis of a Femoral Hip Prosthesis
- **Punit Prakash, Kansas State University**
Computational Modeling of Microwave Ablation and Hyperthermia: Applications to Device Design and Treatment Planning
- **John Pearce, University Texas-Austin**
Including Prediction of Irreversible Thermal Alterations in Numerical Model Work
- **Dorin Panescu, Advanced Cardiac Therapeutics, Inc**
Finite Element Modeling of Cardiac Ablation Devices
- **Socrates Dokos, The University of New South Wales**
Modelling Cardiac Defibrillation

This workshop will present use of computer models in design of medical devices, and application of models for simulation of therapeutic procedures. Mathematical background on finite element and finite difference methods will be presented. Additional sessions will present specific example applications, including cardiac arrhythmia ablation therapies, thermal cancer therapies. In hands-on sessions, the participants will under guidance generate a patient-specific model of hip joint based on medical images, perform a biomechanics simulation of a hip prosthesis, analyze microwave tissue heating and cardiac ablation systems. The presentations are given by experts in the field, both from academia and industry.

Full-Day Workshop

International IEEE EMBS Workshop on Advanced NeuroTechnologies for Brain Initiatives

8:30 - 17:30

Location: Amber 1

Registration Required

Organizer: Metin Akay, University of Houston

Speakers:

- **Karlheinz Meier, Heidelberg University**
- **Mario Romero-Ortega, The University of Texas at Dallas**
- **Dominique Durand, Case Western**
- **Daniel Chew, Bioelectronics R&D, GSK**
- **Jan Rabaey, University of California at Berkeley**
- **Silvestro Micera, EPFL**
- **Jacob Robinson, Rice University**
- **Arto Nurimikko, Brown University**
- **Chunlei Liu, Duke University School of Medicine**
- **Erik Meijering, Erasmus University**
- **Marco Molinari, Fondazione S. Lucia, Roma**
- **Bernhard Graimann, Otto Bock**
- **Levi Hargrove, Northwestern University**

The workshop will highlight the development of novel electronic and photonic devices and techniques for experimental probing, neural simulation studies, and the design and development of human-machine interface systems, artificial vision sensors, and neural prosthesis have significantly restored and enhanced the impaired sensory functions and motor systems. Furthermore, we highlight these recent technological advances by focusing on advanced technologies that monitor and control brain activities to treat neurological diseases, including Alzheimer's, Epilepsy, Depression, etc., from the molecular to systemic levels.

Invited talks will be presented by internationally well respected researchers. This workshop will provide a unique interactive platform to exchange of ideas in the areas of BRAIN initiatives with leading researchers and medical and industry professionals.

Half-Day Workshop

All About the Pressure-Volume Relationship of the Heart: From Bench to Bedside and Beyond

08:30 - 12:30

Location: Amber 4

Registration Required

Organizer: Kenji Sunagawa, Center for Disruptive Cardiovascular Medicine, Kyushu University, Fukuoka, Japan

Speakers:

- **Kenji Sunagawa** , Kyushu University, Japan
- **Paul Steendijk**, Leiden University, The Netherlands
- **Louis Handoko**, Free University Medical Centre, The Netherlands
- **Reinout Borgdorff**, University Medical Center Groningen, The Netherlands
- **Takafumi Sakamoto**, Kyushu University, Japan
- **Masaru Sugimachi**, National Cerebral and Cardiovascular Center, Japan

The pressure-volume relationship (PVR) of the left ventricle was first documented more than 100 years ago. In early 70s, Suga demonstrated that the slope of the end-systolic pressure-volume relationship (Ees) is a sensitive index of ventricular contractility. In 80s, Sunagawa proposed an index of afterload, effective arterial elastance (Ea), to couple the ventricle with the vasculature (Ventriculo-arterial coupling: VA coupling). The VA coupling makes it possible to translate the mechanical properties of the ventricle and afterload into physiological cardiac pump function. Because of such versatility and expandability of the framework, many groups in the world investigated, validated and applied the PVR and VA coupling in pathophysiological conditions as well as in physiological conditions. In this workshop, we would like to discuss every aspect of PVR in patients and in animals including RV function and the impact of autonomic regulation on the PVR and VA coupling. This workshop is the most thorough review of the latest knowledge of PVR. All lectures will be delivered by the first rated instructors who truly contributed and added life to the PVR. I recommend that every student and scientist who is interested in cardiac mechanics should participate in the workshop. We never disappoint you. All participants will get handouts of lectures.

Half-Day Workshop

Models and Simulation Techniques for Discovering Diabetes Influence Factors

08:30 - 12:30

Location: Amber 3

Registration Required

Organizer: Riccardo Bellazzi, University of Pavia

Speakers:

- **José Verdú**, Medtronic Ibérica, Spain
- **Lucia Sacchi**, University of Pavia, Italy
- **Francesco Sambo**, University of Padova, Italy
- **Antonio Martínez**, Tecnologías para la Salud y el Bienestar, Spain

The MOSAIC project is devoted to the development of mathematical models and algorithms that can enhance the current tools and standards for the diagnosis of T2DM, IGT and IFG; that can improve the characterization of patients suffering those metabolic disorders and that can help evaluating the risk of developing T2DM and related complications. These objectives respond to the recognized need of improving the current standards for diabetes diagnosis and treatment, enhancing the way diabetes is currently managed in Europe. The MOSAIC consortium counts on the expertise of four modelling partners who have worked over 25 years in the development of models of the human metabolic response in diabetes that will be enhanced in the project with the information related to environmental and clinical factors relevant for the objectives defined, such as socio-economic aspects, geographic localization, cultural background and nutrition. Multiple data bases cutting across geographic boundaries are available to the MOSAIC consortium as a result of the activities of previous studies and projects of the members: (a) the METABO 7FP EU project; (b) the “Healthy Breakfast” study enriched with Medtronic’s CareLink®; (c) VIVA and BOTINA longitudinal epidemiological studies over 10 years long and the 6-year follow-up of the PPP-Botnia study ; (d) outpatient clinical and administrative data of patients treated over more than 10 years by FSM of Pavia, Health Department ‘Valencia-La Fe’ and Athens Hospital; (e) data bases generated in ongoing 7FP EU studies like ePRE-DICE and (f) Medtronic’s CareLink® iPro2 data base for continuous glucose monitoring systems. MOSAIC integrates these models into a technological platform for diabetes management and monitoring, to facilitate the interpretation and visualization of the data so to enable a comprehensive understanding of the information by the health care professionals. Furthermore, the platform will be used during the validation phase to acquire data during the prospective study to feed the models under test.

Half-Day Workshop

Consciousness Assessment and Motor Rehabilitation with BCI

08:30 - 12:30

Location: Amber 2

Registration Required

Organizer: g.tec Guger Technologies OG

Speakers:

- **Dipl.-Ing. Robert Prueckl, g.tec Guger Technologies OG, Austria**
Introduction to BCI – Concepts and Technologies , Practical Demonstration
- **Tomasz M. Rutkowski, University of Tsukuba, RIKEN Brain Science Institute**
Multisensory and Stimulus-Driven BCIs
- **Nuri Firat Ince, University of Houston, Texas, USA**
Brain Mapping of Fine Hand Movements with High Resolution ECoG
- **Gernot Müller-Putz, Institute for Knowledge Discovery and associated BCI Lab**
Towards Non-Invasive EEG-based Neuroprosthesis Control in Spinal Cord Injury
- **Kyousuke Kamada, Asahikawa Medical University in Hokkaido, Japan**
Acute and Chronic Functional Reorganization on Electroencephalogram for Application of BCI

Brain-Computer Interface (BCI) research has been a hot topic in the past decades all over the world. BCIs, which provide a direct connection from the human brain to a computer, translate brain activity into control signals for numerous applications, including tools to help patients with disorders of consciousness (DOC) as well as to improve stroke recovery. Imagine being able to think, hear, and feel – but not to move or communicate. Over 40% of patients diagnosed as vegetative are reclassified as (at least) minimally conscious when assessed by expert teams. A further subset of potentially communicative non-responsive patients might be undetectable through standard clinical testing. This part of the workshop will give an overview over groups that aim to use BCI technology to identify non-responsive patients that might be able to communicate and will introduce state-of-the-art technology for advanced consciousness assessment. Furthermore, in the last few years a totally novel and promising application for motor-imagery (MI) based BCIs has gained great attention. Several recent articles have shown that MI-based BCIs can induce neural plasticity and thus serve as an important tool to enhance motor rehabilitation for stroke patients. In other words, the overall goal of the BCI system is not communication, but improved stroke recovery by activating the sensorimotor cortex. This activation is translated into control signals for rehabilitation devices like Virtual Reality environments showing moving limbs of avatars, robotic devices attached to the patient's paralyzed limbs such as exoskeletons, or functional electrical stimulation. The audience will get familiar with all the required hardware and software, procedures for cap mounting, training and classifier setup, and BCI operation for both approaches. We will invite audience members to participate in live demonstrations, providing real-world examples of modern BCI performance in field settings.

Half-Day Workshop

Focused Ultrasound Therapy and Robotic Technology: From the Concept to the Bedside

08:30 - 12:30

Location: Suite 7

Registration Required

Organizer: Arianna Menciassi
Andreas Melzer

Speakers:

- **Franco Orsi, Istituto Europeo di Oncologia (IEO), Milan, Italy**
- **Ghulam Nabi, University of Dundee, Scotland, UK**
- **Mario Bezzi, Università la Sapienza, Roma, Italy**
- **Norihiro Koizumi, University of Tokyo, Japan**
- **Takashi Azuma, University of Tokyo, Japan**
- **Matteo Santoro, CAMELOT BIOMEDICAL SYSTEM SRL, Genova, Italy**
- **Erik Dumont, IMAGE GUIDED THERAPY SA, Bordeaux, France**
- **Steffen Tretbar, Fraunhofer IBMT, Germany**
- **Jean Francois Aubry, Institut Langevin, France**
- **Francois Lacoste, Theraclion company – USgHIFU, Paris, France**

Therapeutic Ultrasound is an emerging field of research. It potentially allows the treatment of different pathologies non-invasively. Further figures of merit are the precision, rapidity, selectivity and the absence of ionizing radiations. The technological developments of the latest years brought to an exponential growth of the equipment and devices available in the market and of the indications from the European and American Committees. It has been clinically

demonstrated that therapeutic ultrasound produces several advantageous effects. However, there are still some lacks from a technological viewpoint which slower a real clinical translation. These issues will be on the basis of the proposed workshop, whose final aim is to present the latest advances and the still open problems to a different community, which share the same final targets and the same methodologies, instruments and approaches. The number of papers related to therapeutic ultrasound in EMBC is still limited. At the same time, this interest is lively, as indicated by different projects in the field and continuous attention by the largest companies involved in healthcare in therapeutic ultrasound. In the latest years, the proposers have spent several efforts in the combination of therapeutic ultrasound and robotics, as an example of integration between different and converging field. The workshop could be organized in the following sessions: Therapeutic Ultrasound as a whole: physical bases, bioeffects, state-of-the-art of the industrial/research community Applications: from a clinical and engineering viewpoint Technological challenges: this section will include therapy planning, image guidance and image processing, therapy assessment, intracavitary devices, ultrasound at the microscale (interaction between ultrasound and milli/micro devices such as microbubbles and ultrasound responsive targets), cell stimulation.

Half-Day Workshop

Cutting Edge Data Science integrated between Healthcare Devices and Nutrition informatics

08:30 - 12:30

Location: Brown 1

Registration Required

Organizer: Toshiyo Tamura, Osaka Electro-Communication University
Shigehiko Kanaya, Nara Institute of Science and Technology

Speakers:

- Toshiyo Tamura, Osaka Electro-Communication University
- Shigehiko Kanaya, Nara Institute of Science and Technology
- Klaus Lange, University of Regensburg
- Ming Huang, Nara Institute of Science and Technology
- Tetsuo Sato, Nara Institute of Science and Technology

In recent year, life-related diseases are increasing in middle age and elderly. The prevention and prediction of diseases are important issues to improve the quality of life. Physical activity and nutrition play an important role in long-term health and disease. Additionally, the popularization of wearable biomedical sensors provides a -new angle of monitoring people's physiological and psychology wellbeing, which have chosen the relation with the nutrition in every day. A flood of information about nutrition and diet can be easily extracted from books, health providers or mobile applications. Both diet monitoring and food database create a remarkable amount of data, and with effective construction and management of the related information, it will be of great help in problem solving and decision making for personal healthcare. This workshop will provide 1) the monitoring of diet, nutrition and physical exercise to a healthy lifestyle, unimpaired aging. The talk introduces the endeavor on the integration of nutrition and personal healthcare. New sensing technique for vital sign monitoring is introduced and then trails we have made so far to reveal the influence of nutrition on physiological conditions will be illustrated. 2) Metabolome database targeting food and medicinal crude drugs for preventing disease. 3) The prevention and management of chronic diseases with use of metabolome database. 4) Daily habit and energy intake and consumptions. 5) Cognitive structure and memory function by keeping the healthy condition. We evaluated the correlation between the diffusion tensor magnetic resonance imaging (DT-MRI) of the brain white matter, proton magnetic resonance spectroscopy (1H-MRS) and the Wechsler Memory Scale-Revised (WMS-R) score in terms of healthy individuals.

Half-Day Workshop

How to Use Muscle Synergies Beyond Off-Line Analysis

8:30 - 12:30

Location: Brown 2

Registration Required

Organizer: Fady S. Alnajjar, Brain Science Institute BSI, BSI-TOYOTA Collaboration Center BTCC, RIKEN, Japan
Juan C Moreno, Cajal Institute, the Spanish National Research Council (CSIC), Madrid, Spain
Diego Torricelli, Cajal Institute, the Spanish National Research Council (CSIC), Madrid, Spain
Shingo Shimoda, Brain Science Institute BSI, BSI-Toyota Collaboration Center BTCC, RIKEN, Japan

Speakers:

- Silvia Muceli, Uni. Med. Center Göttingen, Georg-August Univ., Germany
Robustness of a Muscle Synergy-Based Myoelectric Control System
- Qi An, Univ. of Tokyo, Tokyo, Japan
Application of Muscle Synergy for Diagnosis and Rehabilitation System

- **Massimo Sartori, Univ. Med. Center Goettingen, & Bernstein Center for Comp. Neurosci. Germany**
Predictive Models of Muscle Modularity and Musculoskeletal Dynamics
- **Fady S. Alnajjar, Brain Science Institute BSI, BSI-TOYOTA Collaboration Center BTCC, RIKEN, Japan**
Muscle Synergies as a Neurofeedback to Assist Motor function Recovery
- **Diego Torricelli, Cajal Institute, the Spanish National Research Council (CSIC), Madrid, Spain**
Online Biofeedback of Cycling Performance Based on Muscle Synergies
- **Andrea d'Avella, Santa Lucia Foundation, Rome, Italy**
Remapping of Muscle Forces During Myoelectric Control of a Virtual Mass to Assess Synergistic Organization and to Assist Rehabilitation

Human behaviors are a result of complex neural dynamics between the central nervous system (CNS), proprioceptors, and the musculoskeletal system. The notion of muscle synergy, defined as relative weight of muscle activations driven by common excitation primitives, has received considerable attention from the neuroscience community as a way to interpret, in a quantitative way, the neural strategy adopted by the CNS to simplify the coordination of muscles. Muscle synergies have been well investigated in several areas including the: classifying and modeling human and animal motor skills, identifying the degree of brain damage after neurological lesion, and assisting stroke therapy. The current applications based on muscle synergy analysis have been mainly designed to work-offline, yet few efforts have been done to move forward and obtain online synergy. Online synergy computations can be utilized as a robust neurofeedback signaling that is essential to design effective stroke rehabilitation or skill-acquisition training programs by: assisting synergies reorganization, controlling exoskeleton robots, predicting models of human locomotion, controlling multi-degree of freedom prostheses, designing online robotic therapy, etc. This workshop, therefore, focuses on the possible methodologies to move beyond current off-line muscle synergy analysis discussing the possible solutions to overcome dilemmas and highlight real world applications of online muscle synergy. We believe that the outputs of this workshop will bring out the opportunity for new avenues in neurorehabilitation.

Half-Day Workshop

IEEE 1708 Cuffless Blood Pressure Standard Training

08:30 - 12:30

Location: Suite 9

Registration Required

Organizer: IEEE Standards Association

Speakers: Wendy GU - IEEE 1708 Working Member

Learn about the standards for wearable cuffless blood pressure measurement devices, which have drawn growing interest in recent years. Existing standards for evaluating sphygmomanometers are only intended for devices that are used with an occluding cuff and therefore, do not cover all aspects needed for the emerging wearable devices. This session details on IEEE 1708 standard, which provides guidelines for manufacturers to qualify and validate their products, potential purchasers or users to evaluate and select prospective products, and health care professionals to understand the manufacturing practices on wearable blood pressure devices.

Half-Day Workshop

Embodied-Brain Systems Sciences

13:30 - 17:30

Location: Amber 4

Registration Required

Organizer: Jun Ota, The University of Tokyo, and Toshiyuki Kondo, TUAT

Speakers:

- Jun Ota, The University of Tokyo, and Toshiyuki Kondo, TUAT
- Hiroshi Imamizu, Advanced Telecommunications Research Institute International
- Toshiyuki Kondo, Tokyo University of Agriculture and Technology (TUAT)
- Tetsunari Inamura, National Institute of Informatics (NII)
- Pietro Morasso, Italian Institute of Technology (IIT)
- Kazuhiko Seki, National Center of Neurology and Psychiatry (NCNP)
- Shinya Aoi, Kyoto University
- H. Takashi Hanakawa, National Center of Neurology and Psychiatry (NCNP)

As the society ages rapidly, we are experiencing a significant increase in the number of paralysis and other motor dysfunctions resulting from stroke, and neurodegenerative diseases. Thus, establishing effective rehabilitation techniques to overcome them is of paramount importance. The key to achieving this is to elucidate the mechanisms by

which the brain adapts to changes in body functions. However, abnormalities in somatognosia (e.g., sense of ownership) can occur even in diseases that do not cause motor dysfunction. This indicates that we create and maintain an internal representation of the body in the brain. Accordingly, interdisciplinary research to elucidate the neural mechanisms of the body representation in the brain and the mechanism of the long-term changes in this representation and to apply these findings to rehabilitation interventions is highly expected. To achieve the above-mentioned goals, we have started a five-years research program on "Understanding brain plasticity on body representations to promote their adaptive functions" funded as a grant-in-aid for scientific research on innovative areas (FY2014-2018, PI: Prof. Ota) by MEXT, Japan. In the program, we attempt to combine brain science and rehabilitation medicine by using systems engineering to create a new academic discipline that is known as embodied-brain systems science. It is organized from six research projects. Research Projects A01/02 conduct interventional neuroscience experiments on humans and monkeys in an attempt to understand the neural mechanisms of the body representation in the brain and to identify biomarkers that reflect changes of the representation. Research projects B01/B02 create dynamic models of the differing time constants of the fast dynamics and slow dynamics of the body representation in the brain based on neurophysiological experimental data and clinical data from patients undergoing rehabilitation. Research projects C01/C02 attempt to quantify the rehabilitative effects with the biomarkers. By integrating this with a model of the body representation in the brain, we will implement model-based neurorehabilitation and create predictions of prognosis for intervention. This workshop aims to have an opportunity to bring together neuroscientists, clinicians and robotics researchers who are interested in the embodied-brain systems sciences and to discuss about related research topics and future direction in the field.

Half-Day Workshop

Emerging Solutions for Accurate and Robust Pregnancy Monitoring

13:30 - 17:30

Location: Amber 3

Registration Required

Organizer: Massimo Mischi, Eindhoven University of Technology, the Netherlands
Chiara Rabotti, Eindhoven University of Technology, the Netherlands

Speakers:

- **Massimo Mischi, Eindhoven University of Technology, the Netherlands**
Pregnancy Monitoring: Clinical Needs and Emerging Technology
- **Catherine Marque, Compiègne University, France**
The Electrohysterogram: Physiological Modeling and Measurement Technology
- **Brynjar Karlsson, Reykjavík University, Iceland**
- **Chiara Rabotti, Eindhoven University of Technology, the Netherlands**
Electrical Propagation of Electrical Activity in the Uterine Muscle
- **Sergio Casciaro, Centro Nazionale per la Ricerca (CNR), Italy**
Ultrasound Monitoring of Delivery
- **Jean-Marc Girault, University of Tours, France**
Fetal Monitoring by Doppler Ultrasound and Complexity Analysis of FHR Time Series
- **Rik Vullings, Eindhoven University of Technology, the Netherlands**
Probabilistic Approaches in Fetal Electrocardiography
- **Maria Gabriella Signorini, Politecnico di Milano, Italy**
Advanced Signal Processing and Wearable Technology for Fetal Heart-Rate Monitoring
- **Michiel Rooijackers, Bloom Technologies, Belgium**
Unobtrusive Ambulatory Pregnancy Monitoring

Pregnancy is a critical phase in the life for both mother and fetus, with important risks such as fetal distress and pre-term delivery. Early assessment of these risks enables timely and effective intervention, which is essential to minimize perinatal mortality and long term morbidity. Despite strong advances in sensing, patient monitoring, and image and signal analysis methods, their application in the area of pregnancy monitoring and diagnosis is still hampered by challenges such as movement artifacts, low signal-to-noise ratios, and complex signal interpretation. There is therefore a strong need for new reliable solutions to process and interpret biosignals and images that are measured non-invasively during pregnancy, aimed at enabling timely recognition and assessment of critical risks during pregnancy. In particular, the proposed workshop will focus on the three main modalities for pregnancy monitoring, namely, ultrasound, fetal electrocardiography (fECG), and uterine electromyography, referred to as electrohysterography (EHG). In fact, improved pregnancy monitoring for accurate assessment of both fetal condition and uterine activity requires synergic advances in all of these modalities by dedicated modeling and signal analysis. Specific emphasis is dedicated to the ability of emerging technology to enable continuous, ambulatory monitoring of pregnancy through advanced methods for reduction of computational complexity, artifacts, and interference. Finally, a concluding industrial demo will show the practical implementation of the latest developments in the area of ambulatory pregnancy monitoring, evidencing the clinical need and commercial interest in this type of solutions.

Half-Day Workshop
The Fast-Changing Landscape of Electroencephalography

13:30 - 17:30

Location: Amber 2

Registration Required

Organizer: Walter Besio, CREmedical Corp. and University of Rhode Island

Speakers:

- **Nicola Soldati, Brain Products GmbH**
The Many Faces of EEG Recording
- **Robert Prueckl, g.tec Guger Technologies OG**
Real-Time Processing of Biosignal Data for a Brain-Computer Interface
- **Aleksandar Dimov, BioPac Systems**
Recording Superior EEG data: Techniques and Lessons Learned
- **E. Ruben de Francisco, imec / Holst Centre**
Comfort vs. Signal Quality Tradeoff in Dry Electrode EEG: The Role of Electrode and Headset Design
- **Walter Besio, CREmedical Corp. and University of Rhode Island**
Portable Wireless Tripolar Concentric Ring Electrode EEG (tEEG)

This workshop will benefit both new users who are just entering the field of electroencephalography (EEG), and those that are well established. We will show some of the latest technologies that will put your research at the cutting edge. We also invite attendees of the workshop to predict what directions the EEG field will evolve to next. The Fast-Changing Landscape of Electroencephalography workshop is designed to give both novice and experienced EEG users a synopsis of the latest innovations in EEG. EEG is the recording of brain electrical activity from the scalp. The EEG measures the difference in potentials between electrodes generated by ionic currents flowing within neurons of the brain. For many years, EEG has had limited use due to its poor signal quality, low spatial resolution, and non-portability. Even with these limitations, EEG is still a standard practice in clinical settings such as diagnosis of epilepsy and for research such as brain computer interfacing. In recent years, electrodes, signal acquisition hardware, and signal processing software have undergone major improvements allowing new and improved applications of EEG. We will provide presentations and demos from five industry innovators on their latest technologies for acquiring and processing EEG. The target audience of the workshop is the broad community of the IEEE EMBS Society and anyone interested in recording brain signals.

Half-Day Workshop

AMIA: The American Medical Informatics Association – Fostering Collaborations with IEEE-EMBC in Bio-medical Informatics

13:30 - 17:30

Location: Suite 7

Registration Required

Organizer: Riccardo Bellazzi, FACMI
Doug Fridsma, FACP FACMI

Speakers: TBA

AMIA (the American Medical Informatics Association) is a professional scientific association of over 5000 informatics professionals with expertise that spans from basic sciences and fundamental research to applied and practical application of informatics principles in healthcare problems. As more health information is available through consumer devices, in electronic medical records, in large data sets to support population health and through national initiatives focused on precision medicine, AMIA has an opportunity to lead the way in transforming health care through trusted science, education, and the practice of informatics. AMIA connects a broad community of professionals and students interested in informatics and can serve as the bridge for knowledge and collaboration across the continuum of health care domains. In this presentation, we will explore how these changes in health and health care delivery create new opportunities for collaboration between the informatics community in AMIA and the IEEE Engineering in Medicine and Biology Society. The goals of the workshop will be to summarize the changes in informatics and health information technology that is occurring in the United States and across the world, and explore how these changes are impacting AMIA and the IEEE Engineering in the Medicine and Biology Society. Dramatic changes in the adoption of health IT in the US, national and international challenges in precision medicine, disease surveillance, and managing life threatening epidemics are all examples of problems that are too big to solve in isolation. We will explore core activities of AMIA, stressing the aspects related to foundations of biomedical informatics and their applications in the health care contexts, and then, it will highlight the potential intersections with the activities of IEEE-EMBS, with the intention to establish future collaborations and start cross-fertilization activities.

Half-Day Workshop Advances and Challenges in Cardiovascular Ultrasound

13:30 - 17:30

Location: Brown 2

Registration Required

Organizer: Spyretta Golemati, National Kapodistrian University of Athens, Greece
Konstantina S. Nikita, National Kapodistrian University of Athens, Greece

Speakers:

- **Constantinos S. Pattichis, University of Cyprus, Cyprus**
Predicting the Risk of Stroke Based on Ultrasound Image Analysis of the Atherosclerotic Carotid Plaque
- **Piero Tortoli, University of Florence, Italy**
Advances in Blood Vector Velocity Imaging
- **Matilda Larsson, KTH Royal Institute of Technology, Sweden**
Shear Wave Elastography for Assessment of Arterial Stiffness and Plaque Characterization
- **Guillaume ZahndE. Erasmus Medical Center, Netherlands**
Patterns Characterization of the Longitudinal Kinetics of the Arterial Wall Tissues in the Common Carotid Artery
- **Konstantina S. Nikita, National Technical University of Athens, Greece**
Cardiovascular Ultrasound Image Analysis
- **Spyretta Golemati, National Kapodistrian University of Athens, Greece**
Emerging Technologies in Cardiovascular Ultrasound

Ultrasound imaging is widely used in the diagnosis of disorders of the heart and vessels. Advances in ultrasound imaging technology as well as in image analysis, have allowed the investigation of a number of physiological phenomena not possible so far.

This workshop aims to present the state-of-the art in cardiovascular ultrasound imaging and to highlight novel directions and challenges toward identifying non-invasive markers of cardiovascular risk. The topics covered span a wide range of ultrasound imaging and image analysis technologies, including 2D/3D/4D imaging, contrast-enhanced ultrasound, elastography and shear-wave elastography, photoacoustics, vector velocity imaging, image analysis and information technology methods.

Half-Day Workshop IEEE 3333.2.1 Three-Dimensional Medical Modelling Standard Training

13:30 - 17:30

Location: Suite 9

Registration Required

Organizer: IEEE Standards Association

Speakers: Dr. Young Moon - IEEE 3D-Based Medical Application Working Group Chair

Medical images from Hospitals consist of a 2D data set, providing information of human body as sectioned slices. The human body has morphological structure in 3D space. Therefore, to recognize human organs, 3D reconstruction process is necessary to be reformed using 2D slice. After this, its precise position and shape can be identified. Medical 3D volume image is based on unprocessed 3D medical data which contain a variety of medical information. This session cover details on IEEE 3333.2.1 which discusses medical 3D technology and 3D volume image's safety and quality and describes the generation and practical use of medical 3D modeling for diagnostics and therapeutic applications.

Half-Day Tutorial Developing the Virtual Physiological Human: Tools, Techniques and Best Practices for Data Exchange, Storage, and Publication

08:30 - 12:30

Location: Amber 5

Registration Required

Organizer: David Nickerson, FRS Auckland Bioengineering Institute, University of Auckland New Zealand
Peter Hunter, FRS Auckland Bioengineering Institute, University of Auckland New Zealand

Speakers:

- **David Nickerson, Auckland Bioengineering Institute, University of Auckland New Zealand**
- **Peter Hunter, Auckland Bioengineering Institute, University of Auckland New Zealand**

- **Poul Nielsen, Auckland Bioengineering Institute, University of Auckland New Zealand**
- **Hugh Sorby, Auckland Bioengineering Institute, University of Auckland New Zealand**

We will demonstrate tools, techniques and best practices that aid scientists in the development and application of mathematical models and computational simulation experiments in their work toward the creation of a virtual physiological human. The Physiome Model Repository (PMR; <http://models.physiomeproject.org/>) provides a framework for the storage, curation, description, and exchange of data. By using standards appropriate for their data, scientists maximize their ability to reuse existing knowledge and enable others to make use of their achievements in novel work. The tutorial will begin with a series of presentations introducing the central concepts of the PMR, the software tools OpenCOR and MAP client, and some best practice guidelines which facilitate the finding, use, and sharing of data across the Physiome Project. OpenCOR (<http://opencor.ws/>) is an editing, simulation and annotation tool for models encoded in the CellML format (<http://cellml.org/>). The Musculoskeletal Atlas Project (MAP) client (<http://map-client.readthedocs.org/>) is a software framework that integrates disparate software tools into a streamlined workflow of processing steps to achieve specific objectives spanning many aspects of the virtual physiological human. Following the introductory presentations, the speakers and other members of each of these projects will be available to help attendees work through prepared tutorials addressing various common scenarios that these tools are designed to achieve. These tutorials are designed to help demonstrate and promote practices that will aid attendees in their own work. Attendees are also encouraged to raise issues specifically related to their work with the tutors.

Half-Day Tutorial

Movement Analysis via Wearable Inertial Sensors: State of the Art and Perspectives

08:30 - 12:30

Location: Brown 3

Registration Required

Organizer: **Andrea Cereatti, University of Sassari and Interuniversity Centre of Bioengineering of the Human Neuromusculoskeletal System**
Valentina Camomilla, University of Rome “Foro Italico”, Italy and Interuniversity Centre of Bioengineering of the Human Neuromusculoskeletal System,

Speakers:

- **Anisoara Ionescu, Institute of Bioengineering, Ecole Polytechnique Federale de Lausanne (EPFL)**
- **Valentina Camomilla, University of Rome “Foro Italico”, Italy and Interuniversity Centre of Bioengineering of the Human Neuromusculoskeletal System,**
- **Andrea Cereatti, University of Sassari and Interuniversity Centre of Bioengineering of the Human Neuromusculoskeletal System**
- **Angelo Maria Sabatini, Biorobotics Institute, Scuola Superiore Sant’Anna**

Quantitative human movement analysis provides information on functions of the locomotor sub-systems and on the overall strategy upon which motor activity is executed. These outcomes contribute to the understanding and quantification of subject-specific variables that can effectively be used in early diagnosis, intervention, outcomes quantification, prevention, physical activity assessment and sport performance optimization. Magneto-inertial sensing is an emerging technology with a growing number of potential applications in human movement analysis. Several key factors are behind the success of this technology. First, magneto-inertial units are self-contained systems, second, since these sensors are heavily used in the consumer electronics market, their price keeps dropping while their performance improves and lastly, the move from wearable measurement systems to pervasive systems made possible by the MEMS/NEMS technology opens up new perspectives for motor performance assessment and monitoring. This tutorial will focus on the methodologies, problems, solutions and challenges associated with different applications related to analysis of human movement using magneto-inertial data. In particular, the tutorial will consist of four distinct lectures: 1) Position and orientation estimates by means of magneto-inertial sensing 2); High resolution reconstruction of human movement via magneto-inertial sensing; 3) Methods for movement monitoring and daily-life physical activity classification; 4) In-field use of wearable inertial sensors for performance evaluation. The tutorial will be characterized by an educational style and it will provide an opportunity to be up to date on the state of the most recent technological developments and signal processing techniques and on newest applications in the clinical, industrial and sport areas.

Half-Day Tutorial Data Fusion of Everything

13:30 - 17:30

Location: Brown 3

Registration Required

Organizer: Marinka Žitnik, University of Ljubljana, Slovenia
Blaž Zupan, University of Ljubljana, Slovenia, & Baylor College of Medicine, Houston, USA

Speakers:

- Marinka Žitnik, University of Ljubljana, Slovenia
- Blaž Zupan, University of Ljubljana, Slovenia, & Baylor College of Medicine, Houston, USA

We are overwhelmed with data of different types and sizes. In everyday life, we prefer to make decisions by considering all the available information, and often find that the inclusion of even seemingly circumstantial evidence provides an advantage. It would be great if our computational methods could conjecture in a similar way. In molecular biology, incorporating all the data, especially indirect information, may provide substantial gains in the accuracy of predictions and help to deepen our overall understanding of the problem data.

In this tutorial, we will present a high-level introduction to biomedical data integration and data fusion, highlighting the state of the art in the field as well as outstanding computational challenges. These include an introduction to the goals of typical data fusion studies and the bioinformatics techniques currently available to achieve them. We will then focus on matrix factorization-based data fusion approaches. We will introduce a technique for fusing any number of data sets that is agnostic to any specific model organism or data domain, discuss our own work on large-scale data fusion, and demonstrate our data fusion toolbox on several studies. The tutorial will include an easy-to-follow explanation of relevant mathematical concepts and a showcase with benchmarks and examples that attendees will be able to reproduce during the tutorial through either programmatic access to our toolbox or via tinkering in a user-friendly visual programming environment.

Data fusion approaches that will be discussed in detail in the tutorial build upon latent models and matrix factorization to collectively address possibly large volumes of heterogeneous data and construct accurate prediction models. In particular, for problems with heterogeneity in both the prediction task and data, we have recently proposed a data mining approach that can jointly learn in multiple related tasks with overlapping, partially overlapping or even completely different feature spaces. The factorization-based data fusion leaves the data in their own domain spaces, requires no or minimal data engineering at the input, and is able to leverage heterogeneous data to improve learning performance. Just like with Lego bricks, the approach assembles the data in a mosaic called a data fusion graph that through joint compression of all data matrices yields a model wherein every piece of evidence counts, even if distantly related to the prediction task. The method we will present can be applied both to unsupervised and supervised modeling of the data, and provides a venue to jointly collectively consider a plethora of information available in molecular biology.

Half-Day Tutorial

Modeling Complex Models of Physiology in Modelica and PhysiLibrary

13:30 - 17:30

Location: Amber 5

Registration Required

Organizer: Tomas Kulhanek, Charles University in Prague, Czech Republic
Jiří Kofránek, Charles University in Prague, Czech Republic

Speakers:

- Tomas Kulhanek, Charles University in Prague, Czech Republic
- Jiří Kofránek, Charles University in Prague, Czech Republic
- Marek Mateják, Charles University in Prague, Czech Republic
- Filip Ježek, Czech Technical University in Prague, Czech Republic

The PhysiLibrary (<http://www.physiolibrary.org>) is an open-source Modelica library usable for mathematical modeling of cardiovascular circulation, metabolic processes, nutrient distribution, thermoregulation, gases transport, electrolyte regulation, water distribution, hormonal regulation and pharmacological regulation mainly for the lumped-parameter approach. Modelica standard is supported by association composed from industrial as well as academical members and it is implemented by commercial as well as open-source tools. The PhysiLibrary is currently used to model the most complex model of human physiology – PhysioModel (<http://www.physiomodel.org>).

The tutorial will show acausal approach of modeling physiological system, which allows presenting complex models composed from different domains in comprehensible and maintainable form. Together with participants, models will be constructed of cardiovascular system, chemical reactions, body thermal transfer, osmotic phenomenon and integrative approach. Attendees should bring their own computers to participate in the hands-on sections of the tutorial.

General Program

Oral Sessions

Mezzanine, Levels 0 & 2

08:30 -10:00

Open to all registered conference attendees

Student Paper Competition Session I

Suite 7, Mezzanine Level-South Wing

08:30 – 010:00

Open to all registered conference attendees

Finalists of the Student Paper Competition present their papers in three special sessions. First, second and third place winners will be selected and receive monetary awards. The award ceremony will take place at 17:15 Welcome & Keynote session in the Silver room.

Exhibits

Visit the exhibits located in the Gold Room

09:00 - 17:00

Open to all registered conference attendees

Poster Session and Coffee Break

Gold Room, Level 2-South Wing

10:00 – 11:30

Open to all registered conference attendees

Oral Sessions

Mezzanine, Levels 0 & 2

11:30 – 13:00

Open to all registered conference attendees

The Network Effect – How networks really work (Supported by WiE)

Suite 8

11:30 – 13:00 & 15:30– 17:00 (same session both times)

Registration Required

Organizer Judith Perle

We all know that networking is crucial. But do you still regard it as an ‘optional extra’? Do you go to events, conferences or parties and routinely come back with new opportunities? And can you always find the right man (or woman) for the job, no matter how specialized the task? If you understand how networks really work, you’ll be able to capitalise on your communication skills so that you don’t waste opportunities or, worse still, don’t even recognise them. So if you’d like to be able to turn a handful of business cards into something more valuable than wood pulp, you’ll find this Masterclass useful. Topics covered include: key concepts in network theory; contrasting styles of networking; making a good impression and getting the best from events and meetings; grass vs. glass ceilings; creating rapport and building relationships; the importance of effective follow-up. These Masterclasses are supported by IEEE Women in Engineering (WiE) www.ieee.org/women and are open to all EMBC’15 attendees.

Student Paper Competition Session II

Suite 7, Mezzanine Level-South Wing

11:30 – 13:00

Open to all registered conference attendees

Finalists of the Student Paper Competition present their papers in three special sessions. First, second and third place winners will be selected and receive monetary awards. The award ceremony will take place at 17:15 Welcome & Keynote session in the Silver room.

Lunch with Leaders

Panorama Lounge, Level 3-South Wing

12:30 - 14:30

Registration required-SOLD OUT

Organizer: **Nessa Johnson-EMBS Student Representative**

Hungry for a chat? All EMBS students are invited to register to one (of three) free lunches at the EMBC'15. Approximately ten students are seated per table where leaders of the biomedical engineering community are waiting to engage in informal conversation over a delicious and complimentary lunch. This is a rare and invaluable opportunity for you, as a student, to talk to a world leader, get some advice and network in your field. Registration in advance is required, as spaces are limited. Students may only attend one out of the three Lunch with Leaders. The list of Leaders in attendance is subject to change due to scheduling conflicts with the Conference.

Theme Keynote Lectures**Human Brain Project – The Challenge for Medicine**

13:45 – 14:30

Silver Room, Level 2-North Wing

Open to all registered conference attendees

Speaker: **Richard Frackowiak, Director, Department of Clinical Neuroscience, Head of Service of Neurology CHUV University Hospital and Ecole Polytechnique Federale de Lausanne-Lausanne, Switzerland**

The Challenge of Understanding Human Brain Function: The Role of imaging in the BRAIN Project

14:30 – 15:15

Silver Room, Level 2-North Wing

Open to all registered conference attendees

Speaker: **Kamil Ugurbil, Ph.D., Director, Center for Magnetic Resonance Research (CMRR) McKnight Presidential Chair Professor, Depts. of Radiology, Neurosciences and Medicine, University of Minnesota**

Oral Sessions

Mezzanine, Levels 0 & 2

15:30 – 17:00

Open to all registered conference attendees

Student Paper Competition Session III

Suite 7, Mezzanine Level-South Wing

15:30 – 17:00

Open to all registered conference attendees

Finalists of the Student Paper Competition present their papers in three special sessions. First, second and third place winners will be selected and receive monetary awards. The award ceremony will take place at 17:15 Welcome & Keynote session in the Silver room.

Coffee Break

Gold Room, Level 2-South Wing

16:00-17:15

Open to all registered conference attendees

Welcome Ceremony

17:15 – 18:15

Silver Room, Level 2-North Wing

Open to all registered conference attendees

Keynote Lecture

Machines and Microcosms. Leonardo on the Human Body

18:15 – 19:00

Silver Room, Level 2-North Wing

Open to all registered conference attendees

Speaker: **Domenico Laurenza, bgC3, Kirkland-Seattle, USA, Museo Galileo, Firenze, Italy**

Attendee & Student Welcome Reception

19:00 – 21:00

Hall B, Level 1-North Wing

Open to all registered conference attendees - Guests may purchase tickets.

This year's EMBS conference will hold one reception where students and attendees come together for this great networking opportunity. The reception will include open bar and heavy Hors' D Oeuvres.

Thursday, 27 August 2015

General Program

Oral Sessions

Mezzanine, Levels 0 & 2

08:30 – 10:00

Open to all registered conference attendees

PowerPoint/Poster Clinic Workshop: Tips on Effective Presentation Design and Delivery

Brown 1, Level 2-South Wing

08:30 – 10:00

Open to all registered conference attendees

Are you nervous about your upcoming PowerPoint/Poster presentation, but have time for some last minute words of wisdom? For many of us, oral communication is the key for sharing ideas and research; however, both PowerPoint and Poster presentations offer visual tools which can make our talks infinitely more accessible, uncomplicated and effective. You will also receive some all-round pointers on the “do’s” and “don’ts” of preparing and delivering an effective and even captivating presentation. Spaces are limited.

Exhibits

Visit the exhibits located in the Gold Room

09:00 - 17:00

Open to all registered conference attendees

Poster Session and Coffee Break

Gold Room, Level 2-South Wing

10:00 – 11:30

Open to all registered conference attendees

Theme Keynote Lecture

Artificial Pancreas: Models, Signals and Control

11:30-12:30

Brown 3, Level 2-South Wing

Open to all registered conference attendees

Speaker: Claudio Cobelli, Department of Information Engineering, University of Padova, Italy

Theme Keynote Lecture

Mechanical Aspects in the Fight of Immune Cells with Bacterial Infections

11:30-12:30

Space 1 & 2, Level 0-South Wing

Open to all registered conference attendees

Speaker: Prof. Dr. h.c. Viola Vogel, Laboratory of Applied Mechanobiology, Department of Health Sciences and Technology ETH Zurich

Theme Keynote Lecture

The New Requirements to Fully Leverage the Full Value of the Medical Device Industry for Patients, Health Care Professionals and Health Care Systems

11:30-12:30

Silver Room, Level 2-North Wing

Open to all registered conference attendees

Speaker: Serge Bernasconi, Chief Executive Officer-MedTech Europe, Eucomed, EDMA, Brussels, Belgium

Lunch with Leaders

Panorama Lounge, Level 3-South Wing

12:30 - 14:30

Registration required-SOLD OUT

Organizer: **Nessa Johnson-EMBS Student Representative**

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Oral Sessions

Mezzanine, Levels 0 & 2

12:45 – 14:15

Open to all registered conference attendees

Oral Sessions

Mezzanine, Levels 0 & 2

14:30 – 16:00

Open to all registered conference attendees

IEEE Life Sciences Technical Community: The Role of Engineering and Medicine in Life Science Technologies

Suite 8

14:30 – 16:00

Open to all registered conference attendees

Organizer: **Donna Hudson**

The IEEE Life Sciences Technical Community (LSTC) was formed in 2014. It focuses on IEEE activities related to life sciences. Currently, seven IEEE Societies have joined: Circuits & Systems, Communications, Computer, Consumer Electronics, Control Systems, Engineering in Biology and Medicine, and Signal Processing. The EMBS representatives are Bruce Wheeler and Metin Akay. One of the major goals of LSTC is to raise visibility of life science activities within IEEE. Activities in 2014 included booths at HIMSS and IEEE Sections Congress and a plenary presentation at the Consumer Electronics Conference in Berlin. 2015 activities include the Sy-Bio Workshop, HIMSS, MEDRIC Symposium, SEED and EMBS Conferences. Upcoming events include IEEE Big Data Initiative, Consumer Electronics, and Healthcom. The group will participate in the IEEE Grand Challenge in Life Sciences Conference in Abu Dhabi in 2016. The objectives of LSTC are to raise awareness of IEEE activities in life science-related areas, provide a forum for IEEE members to work together to explore future technologies related to life science, and support the inclusion of advanced technology in the healthcare arena.

Workshop on Technical Activities Volunteer Training

Suite 5

14:30 – 16:00 & 17:30 – 19:00 (this session has 2 parts)

Open to all registered conference attendees

Organizer: **Vincenzo Piuri**

This workshop aims at empowering qualified Volunteers to play a bigger role in building IEEE technical communities by providing information and tools in the following areas of IEEE activity:

- Global and Local Technical Communities
- Conferences
- Publication
- Educational Activities

All participants are expected to increase and expand their proactive roles within the above areas of IEEE focus, becoming prominent IEEE Volunteer leaders, both globally and locally.

Participants are also encouraged to replicate this training activity in their local communities, passing this knowledge on to other potential Volunteer leaders, to cultivate a strong, knowledgeable, and engaged Volunteer base.

This workshop is open to everybody including postgraduate students, government employees, university faculty, researchers, and industry professionals who wish to become more involved in IEEE technical communities and volunteering activities.

TC Symposium

White 1, Level 2-North Wing

14:30 – 19:00

Open to all registered conference attendees

Poster Session

Gold Room, Level 2-South Wing

16:00 – 17:30

Open to all registered conference attendees

Oral Sessions

Mezzanine, Levels 0 & 2

17:30 – 19:00

Open to all registered conference attendees

General Program

Oral Sessions

Mezzanine, Levels 0 & 2

08:30 – 10:00

Open to all registered conference attendees

Technical Writing Workshop: Getting Published in Biomedical Engineering Journals

08:30 – 10:00

White 1, Level 2-North Wing

Open to all registered conference attendees

From start to finish, the entire writing process of an academic publication will be covered in this session. The talks will first provide an overview of the structure of a scientific article, and will outline methods for improving your writing skills. A review of the editorial process will follow, whereby the salient “do’s” and “don’ts” will be discussed. The overall aim of this session is to help you improve your technical writing, explain the science/engineering you are working on, and inevitably, get your work published in an academic journal.

Exhibits

Visit the exhibits located in the Gold Room

09:00 - 17:00

Open to all registered conference attendees

Poster Session and Coffee Break

Gold Room, Level 2-South Wing

10:00 – 11:30

Open to all registered conference attendees

Theme Keynote Lecture

EU Strategy on ICT for Ageing Well

11:30 -12:30

Space 1 & 2, Level 0-South Wing

Open to all registered conference attendees

Speaker: Peter Wintlev-Jensen, Deputy Head of Unit, Digital Social Platforms, DG CONNECT, European Commission-Brussels, Belgium

Theme Keynote Lecture

Multi-Scale Image-Based Modeling of the Failing Heart: From Cell to Patient

11:30-12:30

Silver Room, Level 2-North Wing

Open to all registered conference attendees

Speaker: Andrew D. McCulloch, Distinguished Professor of Bioengineering and Medicine, Jacobs School Distinguished Scholar, University of California San Diego

Lunch with Leaders

Panorama Lounge, Level 3-South Wing

12:30 - 14:30

Registration required-SOLD OUT

Organizer: Nessa Johnson-EMBS Student Representative

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Introduction to EMBS Summer Schools

White 1, Level 2-North Wing

12:45 – 14:15

Open to all registered conference attendees

Spend the hour learning about the super Summer Schools offered by EMBS. These schools offer some of the best education and networking opportunities available in the bioengineering discipline—attending this session could change the course of your life!

Oral Sessions

Mezzanine, Levels 0 & 2

12:45 – 14:15

Open to all registered conference attendees

WIE Lunch and Minisymposium

12:45 – 14:15

Suite 9, Mezzanine Level-South Wing

Registration required

The career choice of biomedical engineering and/or health informatics does not exist within a vacuum but rather must work in harmony with other aspects of our lives. Just as our careers are not static our lives outside of our careers are also not static. We have the potential to become partners, mothers, fathers, careers for our parents, grandparents for example and all of these roles mean that our work/life dynamic is constantly changing. A valuable session for anyone whether student or not, interested in learning more about Biomedical Engineering and Health Informatics as a career choice for women and men over a lifetime. Prominent women within the domains Biomedical Engineering and Health Informatics will present their real life case studies of living the journey through changing times in both career and family. Utilize the fantastic networking opportunity that will conclude this session to build and establish new professional networks with other women and men interested in your fields of expertise. Bring your contact details and be ready to make new contacts that are relevant for you

Did you know that joining IEEE Women In Engineering (WIE) is free for Students, Graduate Student Members and Life Members? (Dues are otherwise US\$25 annually).

Registration in advance is required for the luncheon, as spaces are limited. Both men and women are encouraged to attend, and this event is open to non-students. Lastly, attendance at the symposium would be appreciated prior to partaking in the registered lunch.

Special Session: Learning How to Learn

12:45 – 14:15

Amber 8, Level 2-South Wing

Open to all registered conference attendees

This special session provides practical guidance for instructors and students in the STEM (science, technology, engineering and mathematics) disciplines about effective learning strategies. This information is based on recently emerging insights from neuroscience and cognitive psychology.

Oral Sessions

Mezzanine, Levels 0 & 2

14:30 – 16:00

Open to all registered conference attendees

Meet the Editors of EMBS Publications

White 1, Level 2-North Wing

16:00 – 17:30

Open to all registered conference attendees

The “Meet the Editors” session will follow the “Technical Writing and Manuscript Preparation session” where each EiC will shortly present their journal and what they are looking for an a manuscript submission. This will be followed by interactive Q&A where participants have an opportunity to learn about the IEEE EMBS Journal and Magazine publications.

Poster Session and Coffee Break

Gold Room, Level 2-South Wing

16:30 -17:00

Open to all registered conference attendees

Oral Sessions

Mezzanine, Levels 0 & 2

17:30 – 19:00

Open to all registered conference attendees

EMBS Chapter and Club Development**Open to the EMBS membership-at-large**

Brown 1, Level 2-South Wing

17:30 – 19:00

Open to all registered conference attendees

Get inspired by sharing best practice examples of Chapter, Student Chapter and Student Club activities with peers from around the world, including representatives from the newly awarded Best Student Chapter/Club and the Best New Student Chapter/Club.

Young Professionals & Student Networking Reception

Panorama Lounge, Level 3-South Wing

19:00 - 21:00

IEEE and EMBS want our young engineers to meet each other! Therefore, for the tenth year, we are hosting the IEEE Young Professionals & Student Networking Reception. Young Professionals are an IEEE entity whose programs work at providing benefits for young IEEE members after their 'Student Member' status has expired. If you are an IEEE Member who graduated with your first professional degree within the last ten years, including all graduate student members, you are automatically part of the Young Professionals group. Around the world, there are over 47,000 Young Professional members and 100 Young Professional Affinity Groups. The continuing goal of the Young Professionals group is to find out what students need from their Society at this particular stage of their careers and how their Society can in turn offer additional value of membership. If you are indeed a Young Professional, you are cordially invited to network with your peers, some of whom are working in industry, at the Reception's informal and brilliantly fun environment. Registration in advance is required, as spaces are limited. There is a small fee for attendance, but food and drinks are provided.

Saturday, 29 August 2014

General Program

Oral Sessions

Mezzanine, Levels 0 & 2

08:30 – 10:00

Open to all registered conference attendees

Applying for, Negotiating & Embracing Your First BME Position (Academia, Private Sector, and Government)

Amber 8, Level 2-South Wing

08:30 – 10:00

Open to all registered conference attendees

Tips on putting together your CV, preparing your portfolio and getting ready for the interview will be covered by the invited speakers from academia, private sector and government.

Poster Session and Coffee Break

Gold Room, Level 2-South Wing

10:00 – 11:30

Open to all registered conference attendees

Theme Keynote Lecture

Bionics Engineering: Achievements and Challenges

11:30 – 12:30

Space 1 & 2, Level 0-South Wing

Open to all registered conference attendees

Speaker: Paolo Dario, Scuola Superiore Sant'Anna,-Pisa, Italy

Theme Keynote Lecture

Transformation of Big Data into Clinically Actionable Knowledge: Supporting the Personalized Medicine Revolution

11:30 – 12:30

Silver Room, Level 2-North Wing

Open to all registered conference attendees

Speaker: Elisabeth Worthey, PhD, Assistant Professor, Pediatrics, Director of Genomic Informatics, Human and Molecular Genetics Center, Medical College of Wisconsin

Oral Sessions

Mezzanine, Levels 0 & 2

12:45 – 14:15

Open to all registered conference attendees

Session Code Explanation

<p>Day of the conference</p> <ul style="list-style-type: none"> • We Wednesday • Th Thursday • Fr Friday • Sa Saturday 	<p>Time Slots (for Wednesday)</p> <ul style="list-style-type: none"> • A 08:30 – 10:00, oral • BPo 10:00 – 11:30, poster • C 11:30 – 13:00, oral • D 13:45 – 15:20, oral • E 15:30 – 17:00, oral • F 17:15 – 19:00, oral <p>Time Slots (for Thursday, Friday, Saturday)</p> <ul style="list-style-type: none"> • A 08:30 – 10:00, oral • BPo 10:00 – 11:30, poster • C 11:30 – 12:30, oral • D 12:45 – 14:15, oral • E 14:30 – 16:00, oral • FPo 16:00 – 17:30, poster • G 17:30 – 19:00, oral
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The main conference program is run over four days and divided into a number of time slots (as described above) and ‘tracks’. Note the Wednesday time slots are slightly different than for Thursday, Friday and Saturday. There are approximately 25 parallel ‘tracks’ running at EMBC2015 spanning all twelve scientific themes and minisymposia, special sessions, keynotes, etc.. A session code will therefore have the following format:



Examples:



- **WeET02** This is an oral session designating the ‘E’ time slot on Wednesday (15:30-17:00) for track ‘02’



- **FBPoT10** This is a poster session designating the ‘B’ time slot on Friday (10:00-11:30) for track ‘10’

Program in Chronological Order

* – Corresponding Author

Note: Minisymposia (MS) session talk times are only indicative and talks will be scheduled in such a way as to occupy the 90 minute time slot at the discretion of the MS organizer

August 26 Wednesday

Wednesday, 26 August 2015

WeAT1: 08:30-10:00 Brown 1
8.1 Computer-Assisted Surgery (Oral Session)
Chair: Troccaz, Jocelyne *Univ. Joseph Fourier - CNRS UMR 5525*
Co-Chair: De Momi, Elena *Politecnico di Milano*

08:30-08:45 WeAT1.1
Force-Feedback Sensory Substitution using Supervised Recurrent Learning for Robotic-Assisted Surgery
 Aviles, Angelica Ivone* *Univ. Politècnica de Catalunya*; Alsaleh, Samar *George Washington Univ., Dept. of Computer Science, Th*; Sobrevilla, Pilar *Univ. Politècnica de Catalunya - NIF*; Casals, Alicia *Inst. for Biongingeering of Catalonia and Univ. Politècni*

08:45-09:00 WeAT1.2
Development of the Dual Smart Micro-Surgical System using Common-Path Swept Source Optical Coherence Tomography
 Park, Hyun-cheol *DGIST*; Yeo, Chaebeom *DGIST*; Gehlbach, Peter *Johns Hopkins Medical Inst.*; Song, Cheol* *DGIST (Univ.)*

09:00-09:15 WeAT1.3
Intra-Operative 3D Imaging System for Robot-Assisted Fracture Manipulation
 Dagnino, Giulio* *Univ. of the West of England*; Georgilas, Ioannis *Univ. of the West of England, EDM*; Tarassoli, Payam *Univ. Hospitals Bristol*; Atkins, Roger *Univ. Hospitals Bristol*; Dogramadzi, Sanja *Univ. of the West of England*

09:15-09:30 WeAT1.4
FBG-Based Sensorized Light Pipe for Robotic Intraocular Illumination Facilitates Bimanual Retinal Microsurgery
 Horise, Yuki* *Osaka Univ.*; He, Xingchi *Johns Hopkins Univ.*; Gehlbach, Peter *Johns Hopkins Medical Institute*; Taylor, Russell H. *The Johns Hopkins Univ.*; Iordachita, Iulian *Johns Hopkins Univ.*

09:30-09:45 WeAT1.5
Visual and Somatic Sensory Feedback of Brain Activity for Intuitive Surgical Robot Manipulation
 Miura, Satoshi* *Waseda Univ.*; Matsumoto, Yuya *Waseda Univ.*; Kobayashi, Yo *Waseda Univ.*; Kawamura, Kazuya *Chiba Univ.*; Nakashima, Yasutaka *Waseda Univ.*; Fujie, Masakatsu G. *Waseda Univ.*

09:45-10:00 WeAT1.6
Hand-Eye Calibration of a Robot – UltraSound Probe System without Any 3D Localizers
 Sarrazin, Johan* *Univ. Joseph Fourier*; Promayon, Emmanuel *Univ. Joseph Fourier*; Baumann, Michael *Koelis SAS*; Troccaz, Jocelyne *Univ. Joseph Fourier - CNRS UMR 5525*

WeAT2: 08:30-10:00 Brown 2
4.1 Models of Cardiac Electrophysiology and Mechanics (Oral Session)
Chair: Dokos, Socrates *University of New South Wales*

08:30-08:45 WeAT2.1
A Gap Junction-Based Cardiac Electromechanics Model
 Ahmad Bakir, Azam* *The Univ. of New South Wales*; Dokos, Socrates *Univ. of New South Wales*

08:45-09:00 WeAT2.2
Modelling the Effect of Thickness on the Electromechanical Properties of in Vitro Cardiac Cultures: A Simulation Study
 Del Bianco, Fabrizio* *Univ. of Pavia*; Colli Franzone, Piero *Univ. of Pavia*; Scacchi, Simone *Univ. of Milano*; Fassina, Lorenzo *Univ. of Pavia*

09:00-09:15 WeAT2.3
From the Purkinje Fibres to the Ventricle: One Dimensional Computer Simulation for the Healthy and Failing Heart
 Li, Jue* *Univ. of Manchester*; Logantha, Sunil Jit *Univ. of Manchester*; Yanni, Joseph *Univ. of Manchester*; Cai, Xue *Univ. of Manchester*; Dobrzynski, Halina *Univ. of Manchester*; Hart, George *Univ. of Manchester*; Boyett, Mark Richard *Univ. of Manchester*

09:15-09:30 WeAT2.4
In Silico Modelling and Analysis of the Electrical and Mechanical Properties of in Vitro Cardiac Cultures with Different Fiber Architectures
 Del Bianco, Fabrizio* *Univ. of Pavia*; Colli Franzone, Piero *Univ. of Pavia*; Scacchi, Simone *Univ. of Milano*; Fassina, Lorenzo *Univ. of Pavia*

09:30-09:45 WeAT2.5
Autonomic Nervous System Regulation of the Sinoatrial Cell Depolarization Rate: Unifying Computational Models
 Castellanos, Norma Pilar* *Univ. Autonoma Metro. Iztapalapa*; Godinez, Rafael *Univ. Autonoma Metro. Iztapalapa*

09:45-10:00 WeAT2.6
Role of Atrium in Automaticity of the Sinus Node
 Zhang, Hong* *Xi'an Jiaotong Univ.*

WeAT3: 08:30-10:00 Brown 3
6.1 Brain-Computer/Machine Interface I (Invited Session)
Chair: Takahashi, Kazutaka *University of Chicago*
Co-Chair: Vato, Alessandro *Fondazione Istituto Italiano di Tecnologia*

08:30-08:45 WeAT3.1
A Bidirectional Brain-Machine Interface Connecting Alert Rodents to a Dynamical System
 Boi, Fabio* *Fondazione Istituto Italiano diTecnologia*; Semprini, Marianna *Italian Institute of Technology*; Mussa-Ivaldi, Ferdinando *Northwestern Univ.*; Panzeri, Stefano *Italian Institute of Technology*; Vato, Alessandro *Fondazione Istituto Italiano di Tecnologia*

08:45-09:00 WeAT3.2
Phase Locking and Its Spatiotemporal Dynamics of β Oscillation in Electrocorticography (ECoG) in the Monkey Motor Cortex at the Onset of EMGs and 3D Reaching Movements
 Watanabe, Hidenori *National Inst. for Physiological Sciences*; Takahashi, Kazutaka* *Univ. of Chicago*; Isa, Tadashi *NIPS*

09:00-09:15 WeAT3.3
Causal Network in a Deafferented Non-Human Primate Brain
 Balasubramanian, Karthikeyan* *Univ. of Chicago*; Takahashi, Kazutaka *Univ. of Chicago*; Hatsopoulos, Nicholas *Univ. of Chicago*

09:15-09:30 WeAT3.4
Preliminary Study for Extraction of P300 and SSVEP by Stimulus Presentation using Phase Inversion Technique in Hybrid BCI
 Fukami, Tadanori* *Yamagata Univ.*; Ishihara, Kazuyoshi *Yamagata Univ.*; Ishikawa, Fumito *Hotokukai Utsunomiya Hospital*

09:30-09:45 WeAT3.5
A 3D Learning Playground for Potential Attention Training in ADHD: A Brain Computer Interface Approach
 Ali, Abdulla* *Technical Univ. of Denmark*; Puthusserypady, Sadasivan *Technical Univ. of Denmark*

09:45-10:00 WeAT3.6
Auto-Deleting Brain Machine Interface: Error Detection using Spiking Neural Activity in the Motor Cortex
 Even-Chen, Nir* *Stanford Univ.*; Stavisky, Sergey *Stanford Univ.*; Kao, Jonathan *Stanford Univ.*; Ryu, Stephen *Stanford Univ.*; Shenoy, Krishna V. *Stanford Univ.*

<p>WeAT4: 08:30-10:00 Amber 1 1.1 Biomedical Simulation involving Signal Processing I (Oral Session) Chair: Jeremic, Aleksandar <i>McMaster University</i> Co-Chair: Li, Xin <i>Shenzhen Institutes of Advanced Technology, Chinese Academy of Science</i></p>	<p>09:30-09:45 WeAT5.5 Assessing EEG Slow Wave Activity during Anesthesia using Hilbert-Huang Transform Kortelainen, Jukka* <i>Univ. of Oulu</i>; Väyrynen, Eero <i>Univ. of Oulu</i></p>
<p>08:30-08:45 WeAT4.1 Accuracy of Measurements Derived from Intracardiac Unipolar Electrograms: A Simulation Study Van Duijvenboden, Stefan* <i>Univ. College London</i>; Orini, Michele <i>Univ. College London</i>; Taggart, Peter <i>Univ. College London</i>; Hanson, Ben Mark <i>Univ. College London, UK</i></p>	<p>09:45-10:00 WeAT5.6 Eye Blink Artifact Rejection in Single-Channel Electroencephalographic Signals by Combining Complete Ensemble Empirical Mode Decomposition and Independent Component Analysis Kanoga, Suguru* <i>Keio Univ.</i>; Mitsukura, Yasue <i>Keio Univ.</i></p>
<p>08:45-09:00 WeAT4.2 A Novel Statistical Model for Arterial Blood Pressure Signals Holland, Alex* <i>Edwards Lifesciences</i>; Asgari, Shadnaz <i>California State Univ., Long Beach</i></p>	<p>WeAT6: 08:30-10:00 Amber 3 2.1 Novel Ultrasound Imaging Method I (Oral Session) Chair: Magenes, Giovanni <i>University of Pavia</i> Co-Chair: Amini, Amir <i>University of Louisville</i></p>
<p>09:00-09:15 WeAT4.3 Gaussian Mixture Model based Identification of Arterial Wall Movement for Computation of Distension Waveform Patil, Ravindra* <i>Philips Research India</i>; Palanisamy, Krishnamoorthy <i>Philips Research India</i></p>	<p>08:30-08:45 WeAT6.1 Mutual Cinemr/rt3dus Cardiac Segmentation Beitone, Clément* <i>Institute Pascal</i>; Tilmant, Christophe <i>Univ. Blaise Pascal</i>; Chausse, Frédéric <i>Institute Pascal</i></p>
<p>09:15-09:30 WeAT4.4 Detecting Breast Cancer using Microwave Imaging and Stochastic Optimization Jeremic, Aleksandar* <i>McMaster Univ.</i>; Khosrowshahli, Elham <i>School of Biomedical Engineering, McMaster Univ.</i></p>	<p>08:45-09:00 WeAT6.2 Continuous Ultrasound Speckle Tracking with Gaussian Mixtures Schretter, Colas* <i>Vrije Univ. Brussel</i>; Sun, Jianyong <i>Univ. of Greenwich</i>; Bundervoet, Shaun <i>Vrije Univ. Brussel</i>; Dooms, Ann <i>Vrije Univ. Brussel</i>; Schelkens, Peter <i>Vrije Univ. Brussel</i>; de Brito Carvalho, Catarina <i>Medical Imaging Research Center, KU Leuven</i>; Slagmolen, Pieter <i>KU Leuven</i>; D'hooge, Jan <i>KU Leuven</i></p>
<p>09:30-09:45 WeAT4.5 An Analytical Model for Regular Respiratory Signals Derived from the Probability Density Function of Rayleigh Distribution Li, Xin <i>Shenzhen Institutes of Advanced Technology, Chinese Academy of S</i>; Li, Ye* <i>Shenzhen Institutes of Advanced Technology, Chinese Academy of S</i></p>	<p>09:00-09:15 WeAT6.3 The Polydisperse Acoustic Signature of Rigid Microbubbles Dermitzakis, Aris <i>Univ. of Patras, Rio</i>; Butler, Mairead <i>Heriot-Watt Univ.</i>; Thomas, David <i>Univ. of California Los Angeles</i>; Sboros, Vassilis* <i>Heriot Watt Univ.</i></p>
<p>09:45-10:00 WeAT4.6 Tri-Axial Telecoil Hearing Aid for Improved Connection to Public Induction Loops Riehle, Timothy H <i>Koronis Biomed. Technologies Corp.</i>; Knuesel, Robert <i>Koronis Biomedical Technologies</i>; Lichter, Patrick <i>Koronis Biomedical Technologies</i>; Panescu, Dorin* <i>Advanced Cardiac Therapeutics</i></p>	<p>09:15-09:30 WeAT6.4 Ultrasound Synthetic Aperture Focusing with the Delay Multiply and Sum Beamforming Algorithm Matrone, Giulia* <i>Univ. of Pavia</i>; Savoia, Alessandro <i>Stuart Univ. degli Studi Roma Tre</i>; Caliano, Giosue <i>Univ. Roma Tre</i>; Magenes, Giovanni <i>Univ. of Pavia</i></p>
<p>WeAT5: 08:30-10:00 Amber 2 1.2 Empirical Mode Decomposition (Oral Session) Chair: Zarzoso, Vicente <i>Université Nice Sophia Antipolis - CNRS</i> Co-Chair: Kortelainen, Jukka <i>University of Oulu</i></p>	<p>09:30-09:45 WeAT6.5 Robust Deformable Registration of Pre and Post-Resection Ultrasound Volumes for Visualization of Residual Tumor in Neurosurgery Zhou, Hang* <i>Concordia Univ.</i>; Rivaz, Hassan <i>Concordia Univ.</i></p>
<p>08:30-08:45 WeAT5.1 Combination of Signal Segmentation Approaches using Fuzzy Decision Making Azami, Hamed* <i>Univ. of Edinburgh</i>; Escudero, Javier <i>Univ. of Edinburgh</i></p>	<p>09:45-10:00 WeAT6.6 A Hierarchical Model for Automated Breast Lesion Detection from Ultrasound 3D Data Deng, Yinhui* <i>Philips research</i>; Liu, Weiping <i>Philips Research China</i>; Jago, James <i>Philips Healthcare</i></p>
<p>08:45-09:00 WeAT5.2 Empirical Mode Decomposition of Multiple ECG Leads for Catheter Ablation Long-Term Outcome Prediction in Persistent Atrial Fibrillation Hidalgo-Muñoz, Antonio R. <i>Univ. of Nice Sophia Antipolis</i>; Tome, Ana Maria <i>Univ. de Aveiro</i>; Latcu, Decebal Gabriel <i>Centre Hospitalier Princesse Grace</i>; Zarzoso, Vicente* <i>Univ. Nice Sophia Antipolis - CNRS</i></p>	<p>WeAT7: 08:30-10:00 Amber 4 2.2 Pediatric and Fetal Imaging (Invited Session) Chair: Grisan, Enrico <i>University of Padova</i></p>
<p>09:00-09:15 WeAT5.3 Empirical Mode Decomposition of Digital Mammograms for the Statistical based Characterization of Architectural Distortion Zyout, Imad* <i>Tafila Technical Univ.</i>; Togneri, Roberto <i>The Univ. of Western Australia</i></p>	<p>08:30-08:45 WeAT7.1 Characterization of the Central Sulcus in Early Childhood Gajawelli, Niharika* <i>USC</i>; Deoni, Sean C. L. <i>King's College, London</i>; Dirks, Holly Brown <i>Univ.</i>; Dean, Douglas <i>Univ. of Wisconsin-Madison</i>; O'Muircheartaigh, Jonathan <i>Brown Univ.</i>; Sawardekar, Siddhant <i>USC</i>; Ezis, Andrea <i>USC</i>; Wang, Yalin <i>Arizona State Univ.</i>; Nelson, Marvin <i>Univ. of Southern California and Keck School of Medicine, c</i>; Coulon, Olivier <i>Aix-Marseille Univ.</i>; Lepore, Natasha <i>Univ. of Southern California / Children's Hospital Los Ange</i></p>
<p>09:15-09:30 WeAT5.4 Localization of Brain Activities using Multiway Analysis of EEG Tensor via EMD and Reassigned TF Representation Pouryazdian, Saeed* <i>Ryerson Univ.</i>; Beheshti, Soosan <i>Ryerson Univ.</i>; Krishnan, Sridhar <i>Ryerson Univ.</i></p>	<p>08:45-09:00 WeAT7.2 Fully-Automated Identification and Segmentation of Aortic Lumen from Fetal Ultrasound Images Tarroni, Giacomo* <i>Univ. of Padova</i>; Visentin, Silvia <i>Univ. of Padova</i>; Cosmi, Erich <i>Dept. of Obstetrics and Gynecology, Univ. of Padova, Vi</i>; Grisan, Enrico <i>Univ. of Padova</i></p>

- 09:00-09:15 WeAT7.3
Quantification of Kidneys from 3D Ultrasound in Pediatric Hydronephrosis
 Cerrrolaza, Juan J.* *Children's National Medical Center*; Grisan, Enrico *Univ. of Padova*; Safdar, Nabile *Sheikh Zayed Institute for Pediatric Surgical Innovation - Child*; Myers, Emmarie *Sheikh Zayed Institute for Pediatric Surgical Innovation - Child*; Jago, James *Philips Healthcare*; Peters, Craig A. *Sheikh Zayed Institute for Pediatric Surgical Innovation - Child*; Linguraru, Marius George *Children's National Health System*
- 09:15-09:30 WeAT7.4
Automatic Fetal Measurements for Low-Cost Settings by using Local Phase Bone Detection
 Crimi, Alessandro* *ETH*; Anto, Evelyn *ETH/AIMS*; Amoah, Benjamin *ETH/AIMS*
- 09:30-09:45 WeAT7.5
Severity Quantification of Pediatric Viral Respiratory Illnesses in Chest X-Ray Images
 Okada, Kazunori* *San Francisco State Univ.*; Golbaz, Marzieh *San Francisco State Univ.*; Mansoor, Awas *National Institutes of Health*; Perez, Geovanny F *Children's National Health System*; Pancham, Krishna *Children's National Health System*; Khan, Abia *Children's National Health System*; Nino, Gustavo *Children's National Medical Center/George Washington Univ.*; Linguraru, Marius George *Children's National Health System*
- 09:45-10:00 WeAT7.6
Landmark Detection from 3D Mesh Facial Models for Image-Based Analysis of Dysmorphology
 Chendeb El Rai, Marwa *Fujairah National Group*; Tortorici, Claudio *Khalifa Univ.*; AlMuhairi, Hassan *Khalifa Univ.*; Alsafar, Habiba *Khalifa Univ.*; Linguraru, Marius George *Children's National Health System*; Werghi, Naoufel* *Khalifa Univ. of Science, Technology & Research*
- WeAT8: 08:30-10:00 Amber 5
10.1 Telemedicine (Oral Session)
Chair: Bolster, Nigel *Magnus University of Strathclyde*
Co-Chair: Fico, Giuseppe *Technical University of Madrid*
- 08:30-08:45 WeAT8.1
Adaptive Emergency Scenery Video Communications using HEVC for Responsive Decision Support in Disaster Incidents
 Antoniou, Zinonas *Univ. of Cyprus*; Panayides, Andreas* *Imperial College*; Pattichis, Marios *Univ. of New Mexico*; Stavrou, Stavros *Open Univ. of Cyprus*; Kyriacou, Efthymoulos *Frederick Univ. Cyprus*; Spanias, Andreas *Arizona State Univ.*; Constantinides, Anthony G. *Imperial College*; Pattichis, Constantinos *Univ. of Cyprus*
- 08:45-09:00 WeAT8.2
The Development of an Obstetric Tele-Monitoring System
 Vermeulen-Giovagnoli, Barbara* *Maxima Medical Centre*; Peters, Christiaan Hendrik Leonard *Amphia Hospital*; van der Hout-van der Jagt, Beatrijs *Maxima Medical Centre*; Mischi, Massimo *Eindhoven Univ. of Technology*; van Pul, Carola *Maxima Medical Center*; Cottaar, Ward *Eindhoven Univ. of Technology*; Oei, S. Guid *Maxima Medisch Centrum, Veldhoven*
- 09:00-09:15 WeAT8.3
Synchronizing Physiological Data and Video in a Telemedicine Application: A Multimedia Approach
 Lambert, Laurent* *LIP6*; Hachicha, Khalil *UPMC*; Ahmed, Syed Zahid *Lip6*; Pinna, Andrea *LIP6 UMR 7606, Univ. Pierre et Marie Curie, CNRS, Paris*; Garda, Patrick *Univ. Pierre et Marie Curie - Paris 6*
- 09:15-09:30 WeAT8.4
The Study on a Telemedicine Interaction Mode for Deep Brain Stimulation Postoperative Follow-Up
 Chen, Yue* *Tsinghua Univ.*; Hao, Hongwei *Tsinghua Univ.*; Chen, Hao *Beijing Pins Medical CO., LTD.*; Li, Luming *Tsinghua Univ.*
- 09:30-09:45 WeAT8.5
Development and Preliminary Validation of an Interactive Remote Physical Therapy System
 Mishra, Anup Kumar* *Univ. of Missouri, Columbia*; Skubic, Marjorie *Univ. of Missouri*; Abbott, Carmen *Univ. of Missouri*
- 09:45-10:00 WeAT8.6
Psycho-Physiological Tele-Monitoring of Human Operators in Commercial Diving: The Life Support System in the SUONO Project
 Laurino, Marco* *Scuola Superiore Sant'Anna*; Guerriero, Lorenzo *IFC, CNR*; Allegrini, Paolo *Scuola Superiore Sant'Anna*; Menicucci, Danilo *National Research Council (CNR)*; Mastorci, Francesca *Univ. degli Studi*; Magrin, Daniele *CNS International Srl*; Allotta, Benedetto *Univ. of Florence, Dept. of Industrial Engineering*; Bedini, Remo *Institute of Clinical Physiology, CNR, Pisa, Italy*; Gemignani, Angelo *Univ. of Pisa*
- WeAT9: 08:30-10:00 Amber 6
10.2 Computer-Aided Decision Making (Oral Session)
Chair: Maglaveras, Nikolaos *Aristotle University of Thessaloniki*
Co-Chair: Celler, Branko *George University of New South Wales*
- 08:30-08:45 WeAT9.1
Influence of the Surrounded Tissue in the Detection of Microcalcifications using Wavelets
 Ruiz Fernandez, Daniel* *Univ. of Alicante*; Galiana-Merino, Juan Jose *Univ. of Alicante*; Pacheco Lloret, Manuela B. *IBIS Research group. Univ. of Alicante*
- 08:45-09:00 WeAT9.2
Implementation of Machine Learning for Classifying Prosthesis Type through Conventional Gait Analysis
 LeMoyné, Robert* *Northern Arizona Univ.*; Mastroianni, Timothy *Independent*
- 09:00-09:15 WeAT9.3
ChRIS – A Web-Based Neuroimaging and Informatics System for Collecting, Organizing, Processing, Visualizing and Sharing of Medical Data
 Pienaar, Rudolph* *Boston Children's Hospital*; Rannou, Nicolas *Boston Children's Hospital*; Bernal, Jorge *Boston Children's Hospital*; Haehn, Daniel *Harvard Univ.*; Grant, Patricia *Boston Children's Hospital*
- 09:15-09:30 WeAT9.4
A Semi-Supervised Method for Predicting Cancer Survival using Incomplete Clinical Data
 Hassanzadeh, Hamid *Georgia Institute of Technology*; Phan, John H. *Georgia Institute of Technology*; Wang, May D.* *Georgia Tech and Emory Univ.*
- 09:30-09:45 WeAT9.5
Swarm Intelligence Applied to the Risk Evaluation for Congenital Heart Surgery
 Zapata Impata, Brayán Stiven *IBIS Research Group, Univ. of Alicante*; Ruiz Fernandez, Daniel* *Univ. of Alicante*; Monsalve, Ana *Univ. of Alicante*
- 09:45-10:00 WeAT9.6
An Artificial System for Selecting the Optimal Surgical Team
 Saberi, Nahid *City Univ. of New York*; Mahvash, Mohsen *Harvard Univ.*; Zenati, Marco* *Harvard Medical School*
- WeAT10: 08:30-10:00 Amber 7
6.2 Noninvasive Brain Stimulation: Modeling, Techniques and Mechanisms (Invited Session)
Chair: Peterchev, Angel V *Duke University*
Co-Chair: Parazzini, Marta *Consiglio Nazionale delle Ricerche*
- 08:30-08:45 WeAT10.1
Field Modeling for Transcranial Magnetic Stimulation: A Useful Tool to Understand the Physiological Effects of TMS?
 Thielscher, Axel* *Copenhagen Univ. Hospital Hvidovre, Denmark & Biomedical En*; Antunes, Andre *Max-Planck-Institute for Biological Cybernetics, Tübingen*; Saturnino, Guilherme B *Danish Research Center for Magnetic Resonance, Copenhagen Univ.*

- 08:45-09:00 WeAT10.2
Modeling Cerebellar Transcranial Direct Current Stimulation in Children: Potential for Future Applications
 Fiocchi, Serena* *Consiglio Nazionale delle Ricerche CNR*; Liorni, Ilaria *Politecnico di Milano, Milano and Istituto di Ingegneria Biomedica*; Ravazzani, Paolo *CNR*; Parazzini, Marta *Consiglio Nazionale delle Ricerche*
- 09:00-09:15 WeAT10.3
Quiet Transcranial Magnetic Stimulation: Status and Future Directions
 Peterchev, Angel V* *Duke Univ.*; Murphy, David *Duke Univ.*; Goetz, Stefan *Duke Univ.*
- 09:15-09:30 WeAT10.4
Dealing with Artifacts in TMS-Evoked EEG
 Ilmoniemi, Risto* *Aalto Univ. School of Science*; Hernandez-Pavon, Julio *Aalto Univ.*; Mäkelä, Niko *Aalto Univ.*; Metsomaa, Johanna *Aalto Univ.*; Mutanen, Tuomas *Aalto Univ.*; Stenroos, Matti *Helsinki Univ. of Technology*; Sarvas, Jukka *Aalto Univ.*
- 09:30-09:45 WeAT10.5
Transcranial Direct Current Stimulation: Personalizing the Neuromodulation
 Cancelli, Andrea* *LET'S - CNR*; Cottone, Carlo *LET'S - CNR*; Parazzini, Marta *Consiglio Nazionale delle Ricerche*; Fiocchi, Serena *Consiglio Nazionale delle Ricerche CNR*; Truong, Dennis Q. *City College of New York, City Univ. of New York*; Bikson, Marom *The City College of New York*; Tecchio, Franca *Institute of Cognitive Sciences and Technologies, National Resea*
- WeAT11: 08:30-10:00 Amber 8
6.3 Motor Learning, Neural Control, and Neuromuscular Systems I (Oral Session)
 Chair: Durand, Dominique *Case Western Reserve University*
 Co-Chair: Song, Rong *Sun Yat-sen University*
- 08:30-08:45 WeAT11.1
Modulation of Motor Performance by a Monetary Incentive: A Pilot Study
 Summa, Susanna *Univ. of Genoa*; Tamagnone, Irene *Univ. of Genoa*; Asprea, Giulia *Univ. of Genoa*; Capurro, Clelia *Univ. of Genoa*; Sanguineti, Vittorio* *Univ. of Genoa*
- 08:45-09:00 WeAT11.2
Recruitment of Small Synergistic Movement Makes a Good Pianist
 Jelfs, Beth* *City Univ. of Hong Kong*; Zhou, Shengli *Northwestern Polytechnical Univ.*; Wong, Bernard K. Y. *City Univ. of Hong Kong*; Tin, Chung *City Univ. of Hong Kong*; Chan, Rosa H. M. *City Univ. of Hong Kong*
- 09:00-09:15 WeAT11.3
Neuro-Mechanics of Muscle Coordination during Recumbent Pedaling in Post-Acute Stroke Patients
 De Marchis, Cristiano* *Univ. degli Studi Roma Tre*; Ambrosini, Emilia *Politecnico di Milano*; Schmid, Maurizio *Roma Tre Univ.*; Monticone, Marco *Fondazione Salvatore Maugeri*; Pedrocchi, Alessandra *Politecnico di Milano*; Ferrigno, Giancarlo *Politecnico di Milano*; D'Alessio, Tommaso *Univ. Roma TRE*; Conforto, Silvia *Univ. Roma TRE*; Ferrante, Simona *Politecnico di Milano*
- 09:15-09:30 WeAT11.4
Agonist-to-Antagonist Dependency during Target-Directed Isometric Elbow Flexion and Extension
 Liang, Jingtao *Sun Yat-sen Univ.*; Sun, Wenbo *School of Engineering, Sun Yat-sen Univ.*; Song, Rong* *Sun Yat-sen Univ.*
- 09:30-09:45 WeAT11.5
Theoretical Model and Experimental Validation of the Estimated Proportions of Common and Independent Input to Motor Neurons
 Castronovo, Anna Margherita* *Bernstein Center for Computational Neuroscience, Univ. Medici*; Negro, Francesco *Bernstein Center for Computational Neuroscience, Univ. Medici*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medici*
- 09:45-10:00 WeAT11.6
Robot-Assisted Training to Improve Proprioception does Benefit from Added Vibro-Tactile Feedback
 Cuppone, Anna Vera* *Istituto Italiano di Tecnologia*; Squeri, Valentina *Istituto Italiano di Tecnologia*; Semprini, Marianna *Italian Institute of Technology*; Konczak, Juergen *Univ. of Minnesota*
- WeAT12: 08:30-10:00 Suite 5
5.1 Therapeutic Intravascular Devices I (Oral Session)
 Chair: Sunagawa, Kenji *Kyushu University*
 Co-Chair: Bluestein, Danny *Stony Brook University*
- 08:30-08:45 WeAT12.1
The Platelet Hammer: in Vitro Platelet Activation under Repetitive Hypershear
 Sheriff, Jawaad* *Stony Brook Univ.*; Tran, Phat *Univ. of Arizona*; Hutchinson, Marcus *Univ. of Arizona*; DeCook, Tracy *Univ. of Arizona*; Slepian, Marvin J. *Univ. of Arizona*; Bluestein, Danny *Stony Brook Univ.*; Jesty, Jolyon *Stony Brook Univ.*
- 08:45-09:00 WeAT12.2
Modulation of Platelet Membrane Function via Exogenous Lipid Moiety Exposure Alters Platelet Responsiveness to Shear
 Leung, Siu Ling *the Univ. of Arizona*; Dimasi, Annalisa *Politecnico di Milano*; Heiser, Sarah *Duke Univ.*; Dunn, Andrew *the Univ. of Arizona*; Bluestein, Danny *Stony Brook Univ.*; Slepian, Marvin J.* *Univ. of Arizona*
- 09:00-09:15 WeAT12.3
Evaluation of Erythrocyte Flow at a Bearing Gap in a Hydrodynamically Levitated Centrifugal Blood Pump
 Murashige, Tomotaka* *Graduate School of Science and Tech., Tokyo Univ. of S*; Kosaka, Ryo *AIST*; Sakota, Daisuke *National Institute of Advanced Industrial Science and Tech.*; Nishida, Masahiro *National Institute of Advanced Industrial Science and Tech.*; Kawaguchi, Yasuo *Tokyo Univ. of Science*; Yamane, Takashi *Kobe Univ.*; Maruyama, Osamu *National Institute of Advanced Industrial Science and Tech.*
- 09:15-09:30 WeAT12.4
In Vitro Study of an Intra-Aortic VAD: Effect of Reverse-Rotating Mode on Ventricular Recovery
 Wang, Yaxin* *Univ. of Cambridge*; Hsu, Po-Lin *Artificial Organ Technology Laboratory, Soochow Univ., Suzh*; Love, Holley *Texas Heart Institute at St. Luke's Hospital*; Timms, Daniel Lee *Bivacor Pty Ltd*; McMahon, Richard *Dept. of Engineering, Univ. of Cambridge*
- 09:30-09:45 WeAT12.5
Effect of Valsalva in the Pulmonary Prosthetic Conduit Valve on Hemodynamic Function in a Mock Circulatory System
 Tsuboko, Yusuke* *Tohoku Univ.*; Shiraiishi, Yasuyuki *Tohoku Univ.*; Yamada, Akihiro *Tohoku Univ.*; Yambe, Tomoyuki *Tohoku Univ.*
- 09:45-10:00 WeAT12.6
Simulation of Transcatheter Aortic Valve Replacement in Patient-Specific Aortic Roots: Effect of Crimping and Positioning on Device Performance
 Bianchi, Matteo* *Stony Brook Univ.*; Ghosh, Ram Proshad *Stony Brook Univ.*; Marom, Gil *Stony Brook Univ.*; Slepian, Marvin J. *Univ. of Arizona*; Bluestein, Danny *Stony Brook Univ.*
- WeAT13: 08:30-10:00 Suite 6
5.2 Complexity in Cardiovascular Signals (Oral Session)
 Chair: Signorini, Maria G. *Politecnico di Milano*
 Co-Chair: Porta, Alberto *Universita' degli Studi di Milano*
- 08:30-08:45 WeAT13.1
A Percentile-Based Coarse Graining Approach is Helpful in Symbolizing Heart Rate Variability during Graded Head-Up Tilt
 Cysarz, Dirk* *Univ. of Witten/Herdecke*; Edelhäuser, Friedrich *Univ. of Witten/Herdecke*; Javorka, Michal *Comenius Univ., Jessenius Faculty of Medicine*; Montano, Nicola *Univ. degli Studi di Milano*; Porta, Alberto *Univ. degli Studi di Milano*

- 08:45-09:00 WeAT13.2
The Fractal Structure of Cardiovascular Beat-to-Beat Series Described over a Broad Range of Scales: Differences between Blood Pressure and Heart Rate, and the Effect of Gender
 Castiglioni, Paolo* *Fondazione Don Carlo Gnocchi ONLUS*; Brambilla, Valerio *Fondazione Don Carlo Gnocchi, Parma, Italy*; Brambilla, Lorenzo *Fondazione Don Carlo Gnocchi, Parma, Italy*; Gualerzi, Massimo *Fondazione Don Carlo Gnocchi, Parma, Italy*; Lazzeroni, Davide *Fondazione Don Carlo Gnocchi, Parma, Italy*; Coruzzi, Paolo *Dept. of Clinical and Experimental Medicine, Univ. of*
- 09:00-09:15 WeAT13.3
Time, Frequency and Information Domain Analysis of Heart Period and QT Variability in Asymptomatic Long QT Syndrome Type 2 Patients
 Bari, Vlasta* *IRCCS Policlinico San Donato*; Girardengo, Giulia *Dept. of Molecular Medicine, Univ. of Pavia and Fondaz*; Marchi, Andrea *Dept. of Electronics Information and Bioengineering, Polite*; De Maria, Beatrice *IRCCS Fondazione Salvatore Maugeri, Milano*; George Jr, Alfred *Dept. of Medicine and Pharmacology, Vanderbilt Univ.*; Brink, Paul *Dept. of Internal Medicine, Univ. of Stellenbosch, Ste*; Crotti, Lia *Dept. of Molecular Medicine, Univ. of Pavia and Fondaz*; Schwartz, Peter J. *Fondazione IRCCS Policlinico San Matteo and Univ. of Pavia*; Porta, Alberto *Univ. degli Studi di Milano*
- 09:15-09:30 WeAT13.4
Gender-Specific Velocity Recognition of Caress-Like Stimuli through Nonlinear Analysis of Heart Rate Variability
 Nardelli, Mimma* *Univ. of Pisa*; Valenza, Gaetano *Univ. of Pisa-MGH-Harvard Medical School*; Bianchi, Matteo *Univ. of Pisa*; Greco, Alberto *Univ. of Pisa*; Lanata', Antonio *Univ. of Pisa*; Bicchi, Antonio *Univ. of Pisa*; Scilingo, Enzo Pasquale *Univ. of Pisa*
- 09:30-09:45 WeAT13.5
Influence of Sleep State and Position on Cardio-Respiratory Regulation in Newborn Babies
 Lucchini, Maristella *Politecnico di Milano*; Fifer, William P. *Dept. of Psychiatry, Columbia Univ. College of Physici*; Perez, Albany *Dept. of Psychiatry, Columbia Univ. College of Physici*; Signorini, Maria G.* *Politecnico di Milano*
- 09:45-10:00 WeAT13.6
Cardiorespiratory and Cardiovascular Interactions in Cardiomyopathy Patients using Joint Symbolic Dynamic Analysis
 Giraldo, Beatriz* *Univ. Poitècnica de Catalunya*; Rodriguez, Javier *Institute de Bioenginyeria de Catalunya (IBEC)*; Caminal, Pere *Technical Univ. of Catalonia (UPC)*; Bayes-Genis, Antoni *Hospital de la Santa Creu i Sant Pau*; Voss, Andreas *Univ. of Applied Sciences Jena*
- WeAT15: 08:30-10:00 White 1
9.1 Cardiovascular Assessment and Diagnostic Technologies (Oral Session)
Chair: Panescu, Dorin *Advanced Cardiac Therapeutics*
Co-Chair: Hoppe, Karsten *DELTA*
- 08:30-08:45 WeAT15.1
Structured Prediction for Differentiating between Normal Rhythms, Ventricular Tachycardia, and Ventricular Fibrillation in the ECG
 Alwan, Yaqub* *King's College London*; Cvetkovic, Zoran *King's College London*; Curtis, Michael *King's College London*
- 08:45-09:00 WeAT15.2
Live ECG Readings using Google Glass in Emergency Situations
 Schaer, Roger *HES-SO Valais*; Salamin, Fanny, Fanny *Salamin Hôpital Cantonal Fribourg*; Jiménez del Toro, Oscar Alfonso *Univ. of Applied Sciences Western Switzerland (HES-SO)*; Atzori, Manfredo *Univ. of Applied Sciences Western Switzerland (HES-SO Valai)*; Müller, Henning *Univ. of Applied Sciences Western Switzerland (HES-SO)*; Widmer, Antoine* *Univ. of Applied Science and Arts Western Switzerland*
- 09:00-09:15 WeAT15.3
Novel Method for Atrioventricular Motion Assessment from Three-Dimensional Cine Magnetic Resonance Imaging
 Leng, Shuang *National Heart Centre Singapore*; Zhao, Xiaodan* *National Heart Centre Singapore*; Tan, Ru San *National Heart Center, Zhong, Liang National Heart Centre Singapore*
- 09:15-09:30 WeAT15.4
Cardiac Fibrillation Risks with TASER Conducted Electrical Weapons
 Panescu, Dorin* *Advanced Cardiac Therapeutics*; Kroll, Mark *Univ. of Minnesota*; Brave, Michael *LAAW International, LLC, Scottsdale, AZ*
- 09:30-09:45 WeAT15.5
Comparing Twelve-Lead Electrocardiography with Close-to-Heart Patch based Electrocardiography
 Hansen, Ingeborg Helbech* *Technical Univ. of Denmark*; Hoppe, Karsten *DELTA*; Gjerde, Anna *Herlev Hospital*; Kanters, Jorgen *Univ. of Copenhagen, and Copenhagen Heart Arrhythmia Resear*; Sorensen, Helge B D *Technical Univ. of Denmark*
- 09:45-10:00 WeAT15.6
Prediction of the Time Period of Stroke based on Ultrasound Image Analysis of Initially Asymptomatic Carotid Plaques
 Kyriacou, Efthymou *Frederick Univ. Cyprus*; Vogazianos, Paris *Dept. of Computer Science, Univ. of Cyprus, Nicosia, C*; Christodoulou, Christodoulos *Univ. of Cyprus*; Loizou, Christos *InterCollege*; Petroudi, Styliani *Univ. of Cyprus*; Pattichis, Marios *Univ. of New Mexico*; Pantziaris, Marios *The Cyprus Institute of Neurology and Genetics*; Nicolaides, Andrew *Imperial College*; Pattichis, Constantinos *Univ. of Cyprus*; Panayides, Andreas* *Imperial College*
- WeAT16: 08:30-10:00 White 2
7.1 Advanced Technologies for Cell and Tissue Engineering (Invited Session)
Chair: Soncini, Monica *Politecnico di Milano*
Co-Chair: Pavesi, Andrea *Singapore-MIT Alliance for Research and Technology, BioSyM*
- 08:30-08:45 WeAT16.1
Microbioreactor for Cell Cultures under Uniaxial Cyclic Strain
 Ugolini, Giovanni Stefano *Politecnico di Milano*; Rasponi, Marco *Politecnico di Milano*; Pavesi, Andrea *Singapore-MIT Alliance for Research and Technology, BioSyM*; Kamm, Roger D. *Massachusetts Institute of Technology*; Fiore, Gianfranco *Politecnico di Milano*; Pesce, Maurizio *Centro Cardiologico Monzino*; Soncini, Monica* *Politecnico di Milano*
- 08:45-09:00 WeAT16.2
Modeling the Blood-Brain Barrier in a 3D Triple Co-Culture Microfluidic System
 Adriani, Giulia *Singapore-MIT Alliance for Research and Tech.*; Ma, Dongliang *Duke-NUS Graduate Medical School*; Pavesi, Andrea *Singapore-MIT Alliance for Research and Tech.*; BioSyM; Goh, Eyleen L. *Duke-NUS Graduate Medical School*; Kamm, Roger D.* *Massachusetts Institute of Tech.*
- 09:00-09:15 WeAT16.3
Regulation of Nuclear Morphology by Actomyosin Components and Cell Geometry
 M. Ramdas, Nisha* *National Centre for Biological Sciences, TIFR, Bangalore, India*; Li, Qingsen *FIRC, Institute for Molecular Oncology, Milan, Italy. (Formerly; Shivashankar, G.V. Mechanobiology Institute, NUS, Singapore and FIRC, Institute for*
- 09:15-09:30 WeAT16.4
Novel Culturing Platform for Brain Slices and Neuronal Cells
 Svendsen, Winnie E* *Technical Univ. of Denmark*; Al Atrakhti, Fatima Al-Zahraa *Technical Univ. of Denmark*; Bakmand, Tanya *Technical Univ. of Denmark*; Waagepetersen, Helle *Univ. of Copenhagen*; Dimaki, Maria *Technical Univ. of Denmark*
- 09:30-09:45 WeAT16.5
Construction of Stable Capillary Networks using a Microfluidic Device
 Sudo, Ryo* *Keio Univ.*

- 09:45-10:00 WeAT16.6
Microgrooved Ultra-Thin Films as Building Blocks of Future Bio-Hybrid Actuators
 Vannozzi, Lorenzo* *Scuola Superiore Sant'Anna*; Ricotti, Leonardo *Scuola Superiore Sant'Anna*; Alyassi, Shaikha *Khalifa Univ. of Science, Technology and Research*; Bearzi, Claudia *Institute of Cellular Biology and Neurobiology*; Rizzi, Roberto *Institute of Cellular Biology and Neurobiology*; Gargioli, Cesare *Univ. of Rome Tor Vergata*; Khalaf, Kinda *KUSTAR*; Dario, Paolo *Scuola Superiore Sant'Anna*; Menciasci, Arianna *Scuola Superiore Sant'Anna*
- WeAT17: 08:30-10:00 Space 1
1.3 Biomedical Signal Classification V: Sleep Studies (Oral Session)
Chair: Penzel, Thomas *Charite University Hospital*
Co-Chair: Bianchi, Anna Maria *Politecnico di Milano*
- 08:30-08:45 WeAT17.1
Sleep Stage Classification based on Respiratory Signal
 Tataraidze, Alexander* *Bauman Moscow State Technical Univ.*; Anishchenko, Lesya *Remote Sensing Laboratory, Bauman Moscow State Technical Univ.*; Korostovtseva, Lyudmila *Federal North-West Medical Research Centre*; Kooij, Bert Jan *Delft Univ. of Technology*; Bochkarev, Mikhail *Federal North-West Medical Research Centre*; Sviryayev, Yurii *Sleep Laboratory, Federal Almazov Medical Research Centre*
- 08:45-09:00 WeAT17.2
Sleep Stage Classification based on Bioradiolocation Signals
 Tataraidze, Alexander* *Bauman Moscow State Technical Univ.*; Anishchenko, Lesya *Remote Sensing Laboratory, Bauman Moscow State Technical Univ.*; Korostovtseva, Lyudmila *Federal North-West Medical Research Centre*; Kooij, Bert Jan *Delft Univ. of Technology*; Bochkarev, Mikhail *Federal North-West Medical Research Centre*; Sviryayev, Yurii *Sleep Laboratory, Federal Almazov Medical Research Centre*
- 09:00-09:15 WeAT17.3
Characterising Insomnia: A Graph Spectral Theory Approach
 Chaparro-Vargas, Ramiro* *RMIT Univ., School of Electrical and Computer Engineering*; Ahmed, Beena *Texas A&M Univ. at Qatar*; Penzel, Thomas *Charite Univ. Hospital*; Cvetkovic, Dean *RMIT Univ.*
- 09:15-09:30 WeAT17.4
A Classification Method for Eye Movements Direction during REM Sleep Trained on Wake Electro-Oculographic Recordings
 Betta, Monica* *Univ. of Pisa*; Laurino, Marco *Scuola Superiore Sant'Anna*; Gemignani, Angelo *Univ. of Pisa*; Landi, Alberto *Univ. of Pisa*; Menicucci, Danilo *National Research Council (CNR)*
- 09:30-09:45 WeAT17.5
Improving Sleep/Wake Detection via Boundary Adaptation for Respiratory Spectral Features
 Long, Xi* *Eindhoven Univ. of Technology and Philips Research*; Haakma, Reinder *Philips Research*; Rolink, Jerome *RWTH Aachen Univ.*; Fonseca, Pedro *Philips Research and Eindhoven Univ. of Technology*; Aarts, Ronald M. *Philips*
- 09:45-10:00 WeAT17.6
Automatic Sleep Staging using State Machine-Controlled Decision Trees
 Imtiaz, Syed Anas* *Imperial College London*; Rodriguez-Villegas, Esther *Imperial College London*
- WeAT18: 08:30-10:00 Space 2
1.4 Signal Processing in Physiological Systems IV: Cardiovascular Signals (Oral Session)
Chair: Sassi, Roberto *Università degli Studi di Milano*
- 08:30-08:45 WeAT18.1
A New Multi-Window Detection Approach for P-Wave Boundary Points in Electrocardiograms based on Bilateral Accumulative Area
 Chen, Riqing *The Institute of Biomedical Engineering, Graduate School at Shen*; Wu, Jian* *Tsinghua Univ.*; Huang, Yingsong *Tsinghua Univ.*
- 08:45-09:00 WeAT18.2
A New Algorithm for Estimating the V-Index using Sinusoidal Basis Functions
 Kheirati Roonizi, Ebadollah *Univ. degli studi di Milano*; Mainardi, Luca* *Politecnico di Milano*; Sassi, Roberto *Univ. degli Studi di Milano*
- 09:00-09:15 WeAT18.3
Visualization of Multivariate Physiological Data for Cardiorespiratory Fitness Assessment through ECG (R-Peak) Analysis
 Muñoz Cardona, John Edison* *Univ. da Madeira, MITI*; Bermúdez i Badia, Sergi *Madeira Interactive Technologies Institute - Univ. da Mad*; Cameirao, Monica *Univ. da Madeira, Madeira Interactive Technologies Instit*; Gouveia, Elvio Rubio *Univ. of Madeira*
- 09:15-09:30 WeAT18.4
Towards Numerical Temporal-Frequency System Modelling of Associations between Electrocardiogram and Ballistocardiogram
 Srinivasan, Aravind *Nanyang Technological Univ.*; Zhang, Haihong* *Institute for Infocomm Research*; Lin, Zhiping *Nanyang Technological Univ.*; Biswas, Jit *Institute for Infocomm Research*; Chen, Zhihao *Institute for Infocomm Research*
- 09:30-09:45 WeAT18.5
Photoplethysmogram Intensity Ratio: A Potential Indicator for Improving the Accuracy of PTT-Based Cuffless Blood Pressure Estimation
 Ding, Xiao-Rong *The Chinese Univ. of Hong Kong*; Zhang, Yuan-Ting* *The Chinese Univ. of Hong Kong*
- 09:45-10:00 WeAT18.6
Analysis of T-Wave Alternans in Ambulatory Recordings using the ADTWA Index
 Corino, Valentina* *Politecnico di Milano*; Monacizzo, Simone *Politecnico di Milano*; Sassi, Roberto *Univ. degli Studi di Milano*; Mainardi, Luca *Politecnico di Milano*; Martínez, Juan Pablo *Univ. of Zaragoza*
- WeAT19: 08:30-10:00 Space 3
2.3 MR DTI and DSI (Oral Session)
Chair: Rizzo, Giovanna *National Research Council (CNR)*
- 08:30-08:45 WeAT19.1
Improved Spherical Deconvolution to Solve Fiber Crossing in Diffusion-Weighted MR Imaging
 Toselli, Benedetta* *Univ. of Genova*; Franchin, Cristina *Institute of Molecular Bioimaging and Physiology - CNR*; Scifo, Paola *IRCCS San Raffaele Scientific Institute*; Rizzo, Giovanna *National Research Council (CNR)*
- 08:45-09:00 WeAT19.2
Theoretical Analysis of Phantom Rotations in BSD-DTI
 Krzyzak, Artur, Tadeusz *AGH Univ. of Science and Technology, Faculty of Geology, G*; Borkowski, Karol* *AGH Univ. of Science and Technology*
- 09:00-09:15 WeAT19.3
Anisotropic Phantoms in Magnetic Resonance Imaging
 Krzyzak, Artur, Tadeusz *AGH Univ. of Science and Tech., Faculty of Geology, G*; Klodowski, Krzysztof* *AGH Univ. of Science and Tech., Faculty of Physics and*; Raszewski, Zbigniew *Military Univ. of Tech., Faculty of Advanced Tech.*
- 09:15-09:30 WeAT19.4
The B Matrix Calculation using the Anisotropic Phantoms for DWI and DTI Experiments
 Krzyzak, Artur, Tadeusz* *AGH Univ. of Science and Technology, Faculty of Geology, G*; Klodowski, Krzysztof *AGH Univ. of Science and Technology, Faculty of Physics and*

09:30-09:45 WeAT19.5
The Relationships between the Identified Critical Nodes within DTI-Based Brain Structural Network using Hub Measurements and Vulnerability Measurement
 Jin, Cong *Beijing Univ. of Technology*; Lin, Lan *Beijing Univ. of Technology*; Kuo, Li-Wei *National Health Research Institutes*; Wu, Shuicai *Beijing Univ. of Technology*; Fu, Zhenrong *Beijing Univ. of Technology*; Chao, Yi-Ping* *Chang Gung Univ.*

09:45-10:00 WeAT19.6
Automatic Segmentation of Short Association Bundles using a New Multi-Subject Atlas of the Left Hemisphere Fronto-Parietal Brain Connections
 Guevara, Miguel* *Univ. of Concepcion*; Seguel, Daniel *Univ. of Concepcion*; Roman, Godoy, Claudio Esteban *Univ. de Concepcion*; Duclap, Delphine *I2BM, CEA-NeuroSpin*; Lebois, Alice *I2BM, Cea, NeuroSpin*; Le Bihan, Denis *CEA I2BM NeuroSpin*; Mangin, Jean-François *CEA I2BM NeuroSpin*; Poupon, Cyril *CEA I2BM NeuroSpin*; Guevara, Pamela *Univ. of Concepcion*

WeAT20: 08:30-10:00 Space 4
3.1 Novel Applications of Wearable Sensor Technology with Live Demonstrations (Invited Session)
 Chair: Sazonov, Edward *University of Alabama*
 Co-Chair: Postolache, Octavian *Instituto de Telecomunicações*

08:30-08:45 WeAT20.1
Evaluation of Accuracy and Reliability of PulseOn Optical Heart Rate Monitoring Device
 Delgado-Gonzalo, Ricard *CSEM*; Parak, Jakub* *Tampere Univ. of Technology*; Tarniceriu, Adrian *PulseOn SA*; Renevey, Philippe *CSEM*; Bertschi, Mattia *CSEM*; Korhonen, Ilkka *Tampere Univ. of Technology*

08:45-09:00 WeAT20.2
Pulse Detection with a Single Accelerometer Placed at the Carotid Artery: Performance in a Real-Life Diagnostic Test during Acute Hypotension
 Muehlsteff, Jens* *Philips*; Dellimore, Kiran *Philips Research*; Aarts, Vincent *Philips Research*; Derks, Rene *Philips Research*; Peiker, Christiane *Univ. Klinikum Hamburg-Eppendorf*; Meyer, Christian *Heinrich-Heine-Univ. Hospital*

09:00-09:15 WeAT20.3
Congestive Heart Failure Patient Monitoring using Wearable Bio-Impedance Sensor Technology
 Lee, Seulki* *imec*; Squillace, Gabriel *imec*; Smeets, Christophe *Ziekenhuis Oost-Limburg*; Vandecasteele, Marianne *imec*; Grieten, Lars *Holst-IMEC*; de Francisco, Ruben *imec*; Van Hoof, Chris *IMEC*

09:15-09:30 WeAT20.4
Wearable Sensor Network to Study Laterality of Brain Functions
 Postolache, Gabriela *Instituto de Medicina Molecular*; Silva Girão, Pedro *Instituto Superior Tecnico, Instituto de Telecomunicações*; Postolache, Octavian* *Instituto de Telecomunicações*

09:30-09:45 WeAT20.5
From the Design to Real E-Textile Platforms for Rehabilitation and Chronic Obstrusive Pulmonary Diseases Care
 Paradiso, Rita* *Smartex srl*; Caldani, Laura *Smartex srl*; De Toma, Gianluca *Smartex S.r.l.*

09:45-10:00 WeAT20.6
Smart Sensing for Detection of Surgical Site Infection
 Yang, Guang-Zhong* *Imperial College London*

WeAT21: 08:30-10:00 Suite 8
9.2 Clinical Engineering I (Oral Session)
 Chair: Chiew, Yeong Shiong *University of Canterbury*
 Co-Chair: Kelly, Daniel *Ulster University*

08:30-08:45 WeAT21.1
A Preliminary Health Technology Assessment of a Guidance System for Interventional Radiology
 Caparelli, Claudia* *Univ. Campus Bio-Medico di Roma*; Carpino, Giorgio *Campus Bio-Medico Univ.*; Brunetti, Giocchino *MASMEC Biomed*; Larizza, Piero *MASMEC Biomed*; Guglielmelli, Eugenio *Campus Bio-Medico Univ.*

08:45-09:00 WeAT21.2
Safety-Preserving Closed-Loop Control of Anesthesia
 Yousefi, Mahdi* *The Univ. of British Columbia*; van Heusden, Klaske *The Univ. of British Columbia*; Dumont, Guy *Univ. of British Columbia*; Ansermino, J. Mark *British Columbia's Children's Hospital*

09:00-09:15 WeAT21.3
Validation of Clinical Activity Tracking System in Intensive Care Unit to Assess Nurse Workload Distribution
 Guo, Peng *Univ. of Canterbury*; Chiew, Yeong Shiong* *Univ. of Canterbury*; Shaw, Geoffrey M *Christchurch Hospital*; Chase, J. Geoffrey *Univ. of Canterbury*

09:15-09:30 WeAT21.4
Smartphone Derived Movement Profiles to Detect Changes in Health Status in COPD Patients – A Preliminary Investigation
 Kelly, Daniel* *Ulster Univ.*; Caulfield, Brian *UCD*; Donnelly, Seamas *Insight Centre*

09:30-09:45 WeAT21.5
Can Virtual Reality Trainers Improve the Compliance Discrimination Abilities of Trainee Surgeons?
 Jamieson, Earle* *The Univ. of Leeds*; Chandler, James *The Univ. of Leeds*; Culmer, Peter *Leeds Univ.*; Manogue, Michael *The Univ. of Leeds*; Mon-Williams, Mark *The Univ. of Leeds*; Wilkie, Richard *The Univ. of Leeds*

WeBPoT1: 10:00-11:30 Gold Room
1.41 Biomedical Signal Classification in Motion Studies and Brain Computer Interfaces (Poster Session)

10:00-11:30 WeBPoT1.1
Parametric Estimation of Sample Entropy for Physical Activity Recognition
 Aktaruzzaman, Md *Univ. degli Studi di Milano*; Scarabottolo, Nello *Univ. degli Studi di Milano*; Sassi, Roberto* *Univ. degli Studi di Milano*

10:00-11:30 WeBPoT1.2
A Two-Stage Model for Inference of Target Identity during 2D Cursor Control from Natural Gaze Trajectories
 Chen, Zhaokang *HKUST*; Shi, Bertram E* *Hong Kong Univ. of Science and Technology*

10:00-11:30 WeBPoT1.3
Task Discrimination for Non-Weight-Bearing Movements using Muscle Synergies
 Afzal, Taimoor *Univ. of Arkansas at Little Rock*; Iqbal, Kamran* *Univ. of Arkansas at Little Rock*; White, Gannon *Univ. of Arkansas At Little Rock*; Wright, Andrew *Univ. of Arkansas at Little Rock*

10:00-11:30 WeBPoT1.4
Automatic Misclassification Rejection for LDA Classifier using ROC Curves
 Menon, Radhika* *Univ. of Strathclyde*; Di Caterina, Gaetano *Univ. of Strathclyde*; Lakany, Heba *Univ. of Strathclyde*; Petropoulakis, Lykourgos *Univ. of Strathclyde*; Conway, Bernard A *Univ. of Strathclyde*; Soraghan, John J *Univ. of Strathclyde*

10:00-11:30	WeBPoT1.5	Upper-Limb Movement Classification based on Semp Signal Validation with Continuous Channel Selection Cene, Vinicius H.* <i>UFRGS</i> ; Favieiro, Gabriela Winkler <i>Federal Univ. of Rio Grande do Sul (UFRGS)</i> ; Balbinot, Alexandre <i>Federal Univ. of Rio Grande do Sul (UFRGS)</i>	10:00-11:30	WeBPoT2.2	Temporal Correction of Detected R-Peaks in ECG Signals: A Crucial Step to Improve QRS Detection Algorithms Gradl, Stefan* <i>Friedrich-Alexander Univ. Erlangen-Nürnberg (FAU)</i> ; Leutheuser, Heike <i>Digital Sports Group, Pattern Recognition Lab, Dept. of Com</i> ; Eigendi, Mohamed <i>Univ. of British Columbia</i> ; Lang, Nadine <i>Fraunhofer-Institute für Integrierte Schaltungen IIS</i> ; Eskofier, Bjoern M <i>Friedrich-Alexander-Univ. Erlangen-Nürnberg</i>
10:00-11:30	WeBPoT1.6	Real-Time Motion Discrimination Considering Variation of EMG Signals Associated with Lapse of Time Shiraki, Masashi* <i>Doshisha Univ.</i> ; Tsujiuchi, Nobutaka <i>Doshisha Univ.</i> ; Ito, Akihito <i>Doshisha Univ.</i> ; Yamamoto, Tetsushi <i>Doshisha Univ.</i>	10:00-11:30	WeBPoT2.3	Dry Contact Fingertip ECG-Based Authentication System using Time, Frequency Domain Features and Support Vector Machine Singh, Karan <i>Wipro Limited</i> ; Singhvi, Akshit <i>Wipro Limited</i> ; Pathangay, Vinod* <i>Wipro Technologies</i>
10:00-11:30	WeBPoT1.7	Muscular Fatigue Detection using sEMG in Dynamic Contractions R. Bueno, Diana* <i>Univ. of Zaragoza</i> ; Lizano, José María <i>Univ. of Zaragoza</i> ; Montano Gella, Luis <i>Univ. of Zaragoza</i>	10:00-11:30	WeBPoT2.4	Automatic Sleep Staging based on ECG Signals using Hidden Markov Models Chen, Ying* <i>Univ. of Aizu</i> ; Zhu, Xin <i>The Univ. of Aizu</i> ; Chen, Wenxi <i>Univ. of Aizu</i>
10:00-11:30	WeBPoT1.8	Intersession Adaptation of the EEG-Based Detector of Self-Paced Walking Intention in Stroke Patients Sburlea, Andreea Ioana* <i>Bit&Brain Technologies S.L.</i> ; Montesano, Luis <i>Univ. de Zaragoza</i> ; Minguez, Javier <i>Zaragoza Univ.</i>	10:00-11:30	WeBPoT2.5	An Enhanced Cerebral Recovery Index for Coma Prognostication Following Cardiac Arrest Ghassemi, Mohammad* <i>Massachusetts Institute of Technology</i> ; Amorim, Edilberto <i>Massachusetts General Hospital</i> ; Pati, Sandipan <i>Univ. of Alabama School of Medicine</i> ; Mark, Roger <i>Massachusetts Institute of Technology</i> ; Brown, Emery N <i>MGH-Harvard Medical School-MIT</i> ; Purdon, Patrick <i>Massachusetts General Hospital</i> ; Westover, Brandon <i>Massachusetts General Hospital</i>
10:00-11:30	WeBPoT1.9	Fitness Activity Classification by using Multiclass Support Vector Machines on Head-Worn Sensors Loh, Darrell* <i>MSc Student, Simon Fraser Univ.</i> ; Lee, Matthew <i>MSc Student, Simon Fraser Univ.</i> ; Zihajehzadeh, Shaghayegh <i>PhD Student, Simon Fraser Univ.</i> ; Hoskinson, Reynald <i>Simon Fraser Univ.</i> ; Park, Edward J. <i>Simon Fraser Univ.</i>	10:00-11:30	WeBPoT2.6	Emotion State Identification based on Heart Rate Variability and Genetic Algorithm Yu, Sung-Nien* <i>National Chung Cheng Univ.</i> ; Chen, Shu-Feng <i>National Chung Cheng Univ.</i>
10:00-11:30	WeBPoT1.10	Towards Increasing the Number of Commands in a Hybrid Brain-Computer Interface with Combination of Gaze and Motor Imagery Meena, Yogesh Kumar* <i>Ulster Univ.</i> ; Cecotti, Hubert <i>Univ. of Ulster</i> ; Wong-Lin, KongFatt <i>Univ. of Ulster</i> ; Prasad, Girijesh <i>Univ. of Ulster</i>	10:00-11:30	WeBPoT2.7	Early Mastitis Diagnosis through Topological Analysis of Biosignals from Low-Voltage Alternate Current Electrokinetics Zhang, Zhifei* <i>The Univ. of Tennessee</i> ; Song, Yang <i>Univ. of Tennessee, Knoxville</i> ; Cui, Haochen <i>Univ. of Tennessee, Knoxville</i> ; Wu, Jayne <i>The Univ. of Tennessee</i> ; Schwartz, Fernando <i>Univ. of Tennessee</i> ; Qi, Hairong <i>Univ. of Tennessee</i>
10:00-11:30	WeBPoT1.11	Physical Activity Group Classification Algorithm using Triaxial Acceleration and Heart Rate Nakanishi, Motofumi* <i>Omron Healthcare Co., Ltd</i> ; Izumi, Shintaro <i>Kobe Univ.</i> ; Nagayoshi, Sho <i>Omron Healthcare Co., Ltd</i> ; Sato, Hironori <i>Omron Healthcare Co., Ltd</i> ; Kawaguchi, Hiroshi <i>Kobe Univ.</i> ; Yoshimoto, Masahiko <i>Kobe Univ.</i> ; Ando, Takafumi <i>National Institute of Health and Nutrition</i> ; Nakae, Satoshi <i>Tokyo Gakugei Univ.</i> ; Usui, Chiyoko <i>Japan Society for the Promotion of Science</i> ; Aoyama, Tomoko <i>Japan Society for the Promotion of Science</i> ; Tanaka, Shigeo <i>National Institute of Health and Nutrition</i>	10:00-11:30	WeBPoT2.8	The Respiration Pattern as an Indicator of the Anaerobic Threshold Mirmohamadsadeghi, Leila* <i>Swiss Federal Institute of Technology Lausanne (EPFL)</i> ; Vesin, Jean-Marc <i>EPFL</i> ; Lemay, Mathieu <i>EPFL</i> ; Dériaz, Olivier <i>SUVA</i>
10:00-11:30	WeBPoT1.12	Classification of Driver Fatigue in an Electroencephalography-Based Countermeasure System with Source Separation Module Chai, Rifai* <i>Univ. of Technology, Sydney</i> ; Naik, Ganesh R <i>Univ. of Technology Sydney</i> ; Tran, Yvonne <i>Univ. of Technology, Sydney</i> ; Ling, Steve <i>Univ. of Technology Sydney</i> ; Craig, Ashley <i>The Univ. of Sydney</i> ; Nguyen, Hung T. <i>Univ. of Technology, Sydney</i>	10:00-11:30	WeBPoT2.9	Age Group Classification and Gender Detection based on Forced Expiratory Spirometry Ozbek, I. Yucel* <i>Ataturk Univ.</i> ; Cosgun, Sema <i>Ataturk Univ.</i>
WeBPoT2: 10:00-11:30 Gold Room 1.42 Biomedical Signal Classification in Cardiovascular and Respiratory Application (Poster Session)			WeBPoT3: 10:00-11:30 Gold Room 1.43 Biomedical Signal Classification in Central Nervous System Studies (Poster Session)		
10:00-11:30	WeBPoT2.1	A One-Class Approach to Cardiocogram Assessment Gavrilis, Dimitris <i>Athena Research Center</i> ; Nikolakopoulos, George* <i>Luleå Univ. of Technology</i> ; Georgoulas, George <i>TEI of Epirus</i>	10:00-11:30	WeBPoT3.1	An Application of Gaussian Processes on Ocular Artifact Removal from EEG Noorzadeh, Saman* <i>Univ. of Joseph Fourier</i> ; Rivet, Bertrand <i>Grenoble Univ.</i> ; Gumery, Pierre-Yves <i>Joseph Fourier</i>
			10:00-11:30	WeBPoT3.2	Global EEG Segmentation using Singular Value Decomposition Haddad, Ali <i>Rutgers Univ.</i> ; Najafzadeh, Laleh* <i>Rutgers Univ.</i>
			10:00-11:30	WeBPoT3.3	Reliability-Based Automatic Repeat Request for Short Code Modulation Visual Evoked Potentials in Brain Computer Interfaces Sato, Jun-ichi* <i>The Univ. of Electro-Communications</i> ; Washizawa, Yoshikazu <i>The Univ. of Electro-Communications</i>

- 10:00-11:30 WeBPoT3.4
The Portable P300 Dialing System based on Tablet and Emotiv Epoc Headset
 Tong, Jijun *Zhejiang Sci-tech Univ.*; Zhang, Peng *Zhejiang Sci-tech Univ.*; Xiao, Ran *Univ. of Oklahoma*; Ding, Lei* *Univ. of Oklahoma*
- 10:00-11:30 WeBPoT3.5
Using Robust Principal Component Analysis to Alleviate Day-to-Day Variability in EEG based Emotion Classification
 Jao, Ping-Keng *Academia Sinica*; Lin, Yuan-Pin* *Univ. of California, San Diego*; Yang, Yi-Hsuan *Academia Sinica*; Jung, Tzyy-Ping *Univ. of California San Diego*
- 10:00-11:30 WeBPoT3.6
Classification of High Frequency Oscillations in Epileptic Intracerebral EEG
 Jrad, Nisrine* *LTSI - Univ. of Rennes 1*; Kachenoura, Amar *Univ. de Rennes1 and INSERM*; Merlet, Isabelle *INSERM - Univ. de Rennes 1*; Pasnicu, Anca *CHU Rennes*; Bénar, Christian G. *INSERM*; Wendling, Fabrice *INSERM - Univ. de Rennes 1*
- 10:00-11:30 WeBPoT3.7
Epileptic Seizure Detection on Patients with Mental Retardation based on EEG Features: A Pilot Study
 Wang, Lei* *Eindhoven Univ. of Tech.*; Cluitemans, Pierre J.M. *Eindhoven Univ. of Tech.*; Arends, Johan B.A.M. *Epilepsy Center Kempenhaeghe*; Wu, Yan *Eindhoven Univ. of Tech.*; Sazonov, Andrei Vladimirovich *Eindhoven Univ. of Tech.*
- 10:00-11:30 WeBPoT3.8
Classification of Convulsive Psychogenic Non-Epileptic Seizures using Muscle Transforms Obtained from Accelerometry Signal
 Kusmakar, Shitanshu* *The Univ. of Melbourne*; Gubbi, Jayavardhana *The Univ. of Melbourne*; Yan, Bernard *The Royal Melbourne Hospital*; O'Brien, Terence *The Royal Melbourne Hospital*; Palaniswami, Marimuthu *The Univ. of Melbourne*
- 10:00-11:30 WeBPoT3.9
Classification of Convulsive Psychogenic Non-Epileptic Seizures using Histogram of Oriented Motion of Accelerometry Signals
 Kusmakar, Shitanshu* *The Univ. of Melbourne*; Gubbi, Jayavardhana *The Univ. of Melbourne*; Rao, Aravinda *The Univ. of Melbourne*; Yan, Bernard *The Royal Melbourne Hospital*; O'Brien, Terence *The Royal Melbourne Hospital*; Palaniswami, Marimuthu *The Univ. of Melbourne*
- 10:00-11:30 WeBPoT3.10
Joint Collaborative Representation based Sleep Stage Classification with Multi-Channel EEG Signals
 Liu, Xiao *Shanghai Univ.*; Shi, Jun *Shanghai Univ.*; Tu, Yiheng* *The Univ. of Hong Kong*; Zhang, Zhiguo *Nanyang Technological Univ.*
- 10:00-11:30 WeBPoT3.11
Pattern Recognition with Adaptive-Thresholds for Sleep Spindle in High Density EEG Signals
 Gemignani, Jessica* *European Space Agency*; Agrimi, Jacopo *Scuola Superiore Sant'Anna*; Enrico, Cheli *Univ. of Pisa*; Gemignani, Angelo *Univ. of Pisa*; Laurino, Marco *Scuola Superiore Sant'Anna*; Allegrini, Paolo *Scuola Superiore Sant'Anna*; Landi, Alberto *Univ. of Pisa*; Menicucci, Danilo *National Research Council (CNR)*
- 10:00-11:30 WeBPoT3.12
Sleep-Stage Scoring in Mice: The Influence of Data Pre-Processing on a System's Performance
 Katsageorgiou, Vasiliki-Maria* *Istituto Italiano di Tecnologia (IIT), Genova*; Lassi, Glenda *Istituto Italiano di Tecnologia*; Tucci, Valter *Istituto Italiano di Tecnologia*; Murino, Vittorio *Istituto Italiano di Tecnologia*; Sona, Diego *Istituto Italiano di Tecnologia (IIT)*
- 10:00-11:30 WeBPoT3.13
A Brain Computer Interface for Robust Wheelchair Control Application based on Pseudorandom Code Modulated Visual Evoked Potential
 Mohebbi, Ali* *Technical Univ. of Denmark*; Engelsholm, Signe Katrine Dybbro *Technical Univ. of Denmark*; Puthusserypady, Sadasivan *Technical Univ. of Denmark*; Kjaer, Troels Wesenberg *Roskilde Univ. Hospital*; Thomsen, Carsten Eckhart *Univ. of Copenhagen*; Sorensen, Helge B D *Technical Univ. of Denmark*
- 10:00-11:30 WeBPoT3.14
EEG Recordings as a Source for the Detection of IRBD
 Bisgaard, Sissel* *Dept. of Electrical Engineering, Technical Univ. of De*; Duun-Christensen, Bolette *Dept. of Electrical Engineering, Technical Univ. of De*; Kempfner, Lykke *Danish Center for Sleep Medicine, Dept. of Clinical Neuroph*; Sorensen, Helge B D *Technical Univ. of Denmark*; Jennum, Poul *Univ. of Copenhagen, Demnar*
- 10:00-11:30 WeBPoT3.15
Automated Sleep Spindle Detection using IIR Filters and a Gaussian Mixture Model
 Patti, Chanakya Reddy* *Royal Melbourne Institute of Technology*; Penzel, Thomas *Charite Univ. Hospital*; Cvetkovic, Dean *RMIT Univ.*
- WeBPoT4: 10:00-11:30 Gold Room
2.31 EEG, MEG and EIT II (Poster Session)
- 10:00-11:30 WeBPoT4.1
Experimental Realization of Induced Current Magnetic Resonance Current Density Imaging
 Eroglu, Hasan H.* *TSK Rehabilitation and Care Center*; Sadighi, Mehdi *Middle East Technical Univ., Electrical and Electronics Eng*; Sumser, Kemal *Middle East Technical Univ., Dept. of Electrical and*; Naji, Nashwan *Middle East Technical Univ.*; Eyuboglu, B.Murat *Middle East Technical Univ., Dept. of Electrical and E*
- 10:00-11:30 WeBPoT4.2
Event-Related Brain Potential Signaling Unexpected Timing of Feedback: A Source Localization Analysis
 Magosso, Elisa* *Univ. of Bologna*; Forcelli, Veronica *Univ. of Bologna*; Garofalo, Sara *Dept. of Psychology, CNC, Univ. of Bologna*; di Pellegrino, Giuseppe *Univ. of Bologna*; Ursino, Mauro *Univ. of Bologna*
- 10:00-11:30 WeBPoT4.3
Tackling Modelling Error in the Application of Electrical Impedance Tomography to the Head
 Ouypornkochagorn, Taweechai* *Univ. of Edinburgh*; McCann, Hugh *Univ. of Manchester*; Polydorides, Nick *Univ. of Cyprus*
- 10:00-11:30 WeBPoT4.4
Mapping of Language Areas in Patients with Brain Tumors
 Hyder, Rasha *Univ. Teknologi Petronas*; Kamel, Nidal* *Technical Univ. of Petronas*; Tang, Tong Boon *Univ. Teknologi Petronas*; Faruque, Reza *USM*
- 10:00-11:30 WeBPoT4.5
EEG Source Localization Constrained by Time Varying FMRI
 Nguyen, Thanh *Univ. of Houston*; Potter, Tom *Univ. of Houston*; Karmonik, Christof *The Methodist Hospital Neurological Inst*; Grossman, Robert *The Methodist Hospital*; Zhang, Yingchun* *Univ. of Houston*
- 10:00-11:30 WeBPoT4.6
Magnetic Resonance Electrical Properties Tomography for Pancreatic Cancer Detection
 Liu, Yang *Univ. of Houston*; Corr, Stuart *Baylor College of Medicine*; Zhang, Yingchun* *Univ. of Houston*
- 10:00-11:30 WeBPoT4.7
Estimating Underlying Neuronal Activity from EEG using an Iterative Sparse Technique
 Sohrabpour, Abbas *Univ. of Minnesota*; Lu, Yunfeng *Univ. of Minnesota*; He, Bin* *Univ. of Minnesota*

- 10:00-11:30 WeBPoT4.8
Voxel Seed Coherent Source Analysis on Transient Global Amnesia Patients
Muthuraman, Muthuraman* *Christian Albrechts Univ.*; Juliane, Doehring *Dept. of Neurology, Christian Albrechts Univ.*; Martin, Nahrwold *Digital Signal Processing and System Theory, Faculty of Enginner, Mideksa, Kidist Gebremariam Univ. of Kiel*; Chirumamilla, Venkata Chaitanya *Johannes Gutenberg Univ., Dept. of Neurology Mainz*; Margraf, Nils *Univ. of Kiel, Dept. of Neurology*; Jan, Raethjen *Dept. of Neurology*; Gunther, Deuschl *Dept. of Neurology*; Thorsten, Bartsch *Dept. of Neurology, Christian Albrechts Univ.*
- 10:00-11:30 WeBPoT4.9
Combining Bayesian Source Imaging with Equivalent Dipole Approach to Solve the Intracranial EEG Source Localization Problem
Le Cam, Steven *Univ. de Lorraine*; Caune, Vairis *CRAN UMR 7039, Univ. de Lorraine/ CNRS*; Ranta, Radu *CRAN UMR 7039, Univ. de Lorraine/ CNRS*; Korats, Gundars* *CRAN UMR 7039, Univ. de Lorraine*; Louis-Dorr, Valerie *Nancy-Univ.*
- 10:00-11:30 WeBPoT4.10
Impedance based Automatic Electrode Positioning
Miklody, Daniel* *Technische Univ. Berlin*; Höhne, Johannes *Berlin Institute of Technology*
- WeBPoT5: 10:00-11:30 Gold Room
2.32 Image Analysis (Poster Session)
- 10:00-11:30 WeBPoT5.1
Contactless Vision-Based Pulse Rate Detection of Infants under Neurological Examinations
Sikdar, Arindam *IIT Bhubaneswar*; Behera, Santosh Kumar *IIT Bhubaneswar*; Dogra, Debi Prosad *IIT Bhubaneswar*; Bhaskar, Harish* *Khalifa Univ.*
- 10:00-11:30 WeBPoT5.2
Speeding up the File Access of Large Compressed NIFTI Neuroimaging Data
Rajna, Zalán* *Univ. of Oulu*; Keskinarkaus, Anja *Univ. of Oulu*; Kiviniemi, Vesa *Johannes Dept. of Diagnostic Radiology, MRC, Oulu Univ. Hospita*; Seppänen, Tapio *Univ. of Oulu*
- 10:00-11:30 WeBPoT5.3
Brain Tumor Image Segmentation using Kernel Dictionary Learning
Lee, Jeon *Univ. of Maryland, Baltimore County*; Kim, Seung-Jun* *Univ. of Maryland, Baltimore County*; Chen, Rong *Univ. of Maryland, Baltimore*; Herskovits, Edward *The Univ. of Maryland, Baltimore*
- 10:00-11:30 WeBPoT5.4
Symbolic Representation of Brain Vascular Network with ArterioVenous Malformations from 3DRA Images
Li, Fan* *ESME Sudria Engineering School*; Tankyevych, Olena *Paris-Est Univ.*; Chenoune, Yasmina *Laboratoire Ingénierie des Systèmes de Traitement de l'Informati*; Blanc, Raphaël *Fondation Ophtalmologique de Rothschild, Interventional Neurora*; Petit, Eric *Univ. Paris 12 Val-de-Marne*
- 10:00-11:30 WeBPoT5.5
An Age Estimation Method using Brain Local Features for T1-Weighted Images
Kondo, Chihiro* *Tohoku Univ.*; Ito, Koichi *Tohoku Univ.*; Wu, Kai *South China Univ. of Technology*; Sato, Kazunori *Tohoku Univ.*; Taki, Yasuyuki *Tohoku Univ.*; Fukuda, Hiroshi *Tohoku Pharmaceutical Univ.*; Aoki, Takafumi *Tohoku Univ.*
- 10:00-11:30 WeBPoT5.6
Exploring Influence of Subliminal Interoception on Whole-Brain Functional Network Connectivity Dynamics
Jarrahi, Behnaz* *Univ. of California, Los Angeles*; Mantini, Dante *ETH*; Mehnert, Ulrich *Univ. of Zurich, Balgrist Univ. Hospital*; Kollias, Spyros *Univ. Hospital Zurich*
- 10:00-11:30 WeBPoT5.7
Automatic and Robust Single-Camera Specular Highlight Removal in Cardiac Images
Alsaleh, Samar* *George Washington Univ., Dept. of Computer Science, Th*; Aviles, Angelica Ivone *Univ. Politècnica de Catalunya*; Sobrevilla, Pilar *Univ. Politècnica de Catalunya - NIF*; Casals, Alicia *Institute for Biengineering of Catalonia and Univ. Politècni*; Hahn, James *George Washington Univ.*
- 10:00-11:30 WeBPoT5.8
Creating Shape Templates for Patient Specific Biventricular Modeling in Congenital Heart Disease
Gilbert, Kathleen* *Univ. of Auckland*; Farrar, Genevieve *Univ. of California, San Diego*; Cowan, Brett *Univ. of Auckland*; Suinesiaputra, Avan *Univ. of Auckland*; Occleshaw, Christopher *Univ. of Auckland*; Pontre, Beau *Univ. of Auckland*; Perry, James *Univ. of California, San Diego*; Hegde, Sanjeet *Univ. of California, San Diego*; Marsden, Alison *Univ. of California, San Diego*; Omens, Jeffrey *UCSD*; McCulloch, Andrew *Univ. of California, San Diego*; Young, Alistair *Univ. of Auckland*
- 10:00-11:30 WeBPoT5.9
Automatic Localization of the Left Ventricle in Cardiac MRI Images using Deep Learning
Emad, Omar* *Nile Univ.*; Yassine, Inas *Cairo Univ.*; Fahmy, Ahmed S. *Cairo Univ.*
- 10:00-11:30 WeBPoT5.10
Relationship between Cardiac Quiescent Periods Derived from Seismocardiography and Echocardiography
Wick, Carson *Georgia Institute of Technology*; Inan, Omer *Georgia Institute of Technology*; Bhatti, Pamela *Georgia Institute of Technology*; Tridandapani, Srini* *Emory Univ.*
- 10:00-11:30 WeBPoT5.11
Identification of Left Ventricular Systolic Dysfunction and Contraction Inhomogeneity in Post-Infarction Patients using a Segmental Two-Parameter Empirical Deformable Model
Leong, Chen Onn* *Univ. of Malaya*; Jahanzad, Zeinab *Univ. of Malaya*; Liew, Yih Miin *Univ. of Malaya*; Lim, Einly *Univ. of Malaya*
- 10:00-11:30 WeBPoT5.12
Quantification of Coronary Artery Stenosis by Area Stenosis from Cardiac CT Angiography
Zhou, Jiayin* *Institute for Infocomm Research*; Huang, Weimin *Institute for Infocomm Research, Agency for Science Technology and*; Chi, Yanling *Institute for Infocomm Research*; Duan, Yuping *Institute for Infocomm Research, A*STAR*; Zhong, Liang *National Heart Centre Singapore*; Zhao, Xiaodan *National Heart Centre Singapore*; Zhang, Jun-Mei *National Heart Center*; Tan, Ru San *National Heart Center*; Xiong, Wei *Institute for Infocomm Research, A-STAR*; Toe, Kyaw Kyar *Institute for Infocomm Research, A*STAR*
- 10:00-11:30 WeBPoT5.13
Brain Tumor Grading based on Neural Network and Convolutional Neural Network
Pan, Yuehao *Nanyang Technological Univ.*; Huang, Weimin* *Institute for Infocomm Research, Agency for Science Technology and*; Lin, Zhiping *Nanyang Technological Univ.*; Zhu, Wanzheng *Nanyang Technological Univ.*; Zhou, Jiayin *Institute for Infocomm Research*; Wong, Yen Ling *Jocelyn National Univ. Health System*; Ding, Zhongxiang *Zhejiang Provincial People's Hospital*
- 10:00-11:30 WeBPoT5.14
Measurement of Body Joint Angles for Physical Therapy based on Mean Shift Tracking using Two Low Cost Kinect Images
Chen, Yung-Chih *Tzu Chi Univ.*; Lee, H. J* *Tzu Chi Univ.*; Lin, K.H *Tzu Chi Univ.*
- 10:00-11:30 WeBPoT5.15
Multiscale Edge Detection and Parametric Shape Modeling for Boundary Delineation in Optoacoustic Images
Mandal, Subhamoy* *TU München and Helmholtz Zentrum München*; P Sudarshan, Viswanath *TU Munich*; Nagaraj, Yeshaswini *Technical Univ. Munich*; Deán-Ben, C. Luis *Biological and Medical Imaging, Technical Univ. of Munich a*; Razansky, Daniel *Technical Univ. of Munich and Helmholtz Center Munich*

WeBPoT6: 10:00-11:30 Gold Room
2.33 Image Classification and Feature Extraction II (Poster Session)

- 10:00-11:30 WeBPoT6.1
Transfer Representation Learning for Medical Image Analysis
 Shie, ChuenKai* *HTC corporation*; Chuang, Chung-Hsiang
HTC; Wu, Jake Meng-Hsi *HTC Corporation*; Chou, Chun-Nan
HTC Corporation; Chang, Edward *HTC Reseach*
- 10:00-11:30 WeBPoT6.2
**Glaucoma Detection based on Deep Convolutional
 Neural Network**
 Chen, Xiangyu* *Institute for Infocomm Research, A*STAR*; Xu,
 Yanwu *Institute for Infocomm Research*; Wong, Damon *Institute
 for Infocomm Research*; Wong, Tien Yin *National Univ. of
 Singapore*; Liu, Jiang *Institute for Infocomm Research, A STAR*
- 10:00-11:30 WeBPoT6.3
**Fuzzy Membership Functions for Analysis of High-Resolution
 CT Images of Diffuse Pulmonary Diseases**
 Almeida, Eliana Silva de *Univ. Federal de Alagoas*; Rangayyan,
 Raj* *Univ. of Calgary*; Azevedo-Marques, Paulo Mazzoncini
Univ. of São Paulo
- 10:00-11:30 WeBPoT6.4
**Classification of Vertebral Compression Fractures in Magnetic
 Resonance Images using Spectral and Fractal Analysis**
 Azevedo-Marques, Paulo Mazzoncini* *Univ. of São Paulo*;
 Spagnoli, Heloisa Ferreira *Univ. of São Paulo*; Frighetto-
 Pereira, Lucas *Univ. of São Paulo*; Menezes-Reis, Rafael *Univ.
 of São Paulo*; Metzner, Guilherme A. *Univ. of São Paulo*;
 Rangayyan, Raj *Univ. of Calgary*; Nogueira-Barbosa, Marcello
Univ. of Sao Paulo
- 10:00-11:30 WeBPoT6.5
**Detection of Blur Artifacts in Histopathological Whole-Slide
 Images of Endomyocardial Biopsies**
 Wu, Hang *Georgia Institute of Technology*; Phan, John H.
Georgia Institute of Technology; Bhatia, Ajay *Emory Univ.*;
 Cundiff, Caitlin *Emory Univ.*; Shehata, Bahig *Emory Univ.*;
 Wang, May D.* *Georgia Tech and Emory Univ.*
- 10:00-11:30 WeBPoT6.6
**Blood Detection in Wireless Capsule Endoscope
 Images based on Salient Superpixels**
 Iakovidis, Dimitris* *Technological Educational Institute of
 Central Greece*; Chatzis, Dimitris *Univ. of Thessaly*;
 Chrysanthopoulos, Panos *Univ. of Thessaly*; Koulaouzidis,
 Anastasios *The Royal Infirmary of Edinburgh*
- 10:00-11:30 WeBPoT6.7
**Voice Pathology Classification based on
 High-Speed Videoendoscopy**
 Panek, Daria* *AGH Univ. of Science and Technology*; Skalski,
 Andrzej *AGH Univ. of Science and Technology*; Zielinski,
 Tomasz *AGH Univ of Science & Technology*; Delyyski, Dimitar
*Communication Sciences Research Center, Cincinnati
 Children's Ho*
- 10:00-11:30 WeBPoT6.8
**Automatic Segmentation of Rima Glottidis in 4D Laryngeal
 CT Scans for Early Detection of Parkinson's Disease**
 Hewavitharanage, Sajini Ruwanthika Gintota* *The Univ. of
 Melbourne*; Gubbi, Jayavardhana *The Univ. of Melbourne*;
 Thyagarajan, Dominic *Monash Medical Centre*; Lau, Ken *Monash
 Medical Centre*; Palaniswami, Marimuthu *The Univ. of Melbourne*
- 10:00-11:30 WeBPoT6.9
**Automatic Detection of Cell Divisions (Mitosis) in Live-
 Imaging Microscopy Images using Convolutional Neural
 Networks**
 Shkolyar, Anat *Tel Aviv Univ.*; Gefen, Amit *Tel Aviv Univ.*;
 Benayahu, Dafna *Tel Aviv Univ.*;
 Greenspan, Hayit K.* *Tel Aviv Univ.*
- 10:00-11:30 WeBPoT6.10
**A Multi-Environment Dataset for Activity of Daily Living
 Recognition in Video Streams**
 Borreo, Alessandro *Dept. of Engineering, Univ. Campus Bio-
 Medico of Rome*; Onofri, Leonardo *Univ. Campus Bio-Medico di
 Roma*; Soda, Paolo* *Univ. Campus Bio-Medico*
- 10:00-11:30 WeBPoT6.11
**Estimating Flow Rate and Total Volume of Simulated Urine
 Flow Noninvasively from a Monocular Camera**
 Isomura, Atsushi* *Aichi Prefectural Univ.*; Bhuiyan, Shoaib
Suzuka Univ. of Medical Science; Kawanaka, Haruki *Aichi
 Prefectural Univ.*; Watanabe, Eiichi *Fujita Health Univ.*; Oguri,
 Koji *Aichi Prefectural Univ.*
- 10:00-11:30 WeBPoT6.12
**Follow-Me: A New Start-and-Stop Method for Visual Animal
 Tracking in Biology Research**
 Linares-Sánchez, Luis Javier *Univ. of Murcia*; Fernandez
 Aleman, Jose Luis *Univ. of Murcia*; Garcia-Mateos, Ginés*
Univ. of Murcia; Pérez-Ruzafa, Ángel *Univ. of Murcia*; Sánchez-
 Vázquez, Francisco Javier *Univ. of Murcia*
- 10:00-11:30 WeBPoT6.13
**Hyperspectral Image Acquisition and Analysis of Cultured
 Bacteria for the Discrimination of Urinary Tract Infections**
 Turra, Giovanni *Univ. of Brescia, Copan Italia SpA*; Conti,
 Nicola *Univ. of Brescia, Copan Italia SpA*; Signoroni, Alberto*
Univ. of Brescia
- 10:00-11:30 WeBPoT6.14
**A Tool for the Quantification of Radial Neo-Vessels in Chick
 Chorioallantoic Membrane Angiogenic Assays**
 Gnutti, Alessandro *Univ. of Brescia*; Signoroni, Alberto* *Univ. of
 Brescia*; Leonardi, Riccardo *Univ. of Brescia*; Corsini, Michela
Univ. of Brescia; Presta, Marco *Univ. of Brescia*; Mitola,
 Stefania *Univ. of Brescia*
- 10:00-11:30 WeBPoT6.15
**Eigenfoot Decomposition of Plantar Pressure Images and
 Case Study of Feature Prediction of Two Modalities**
 Cuppens, Kris* *Mobilab - Thomas More Univ. College*; Saey,
 Tom *Mobilab - Thomas More Univ. College*; De Raeve, Eveline
Mobilab - Thomas More Univ. College; Van den Herrewegen,
 Inge *Mobilab - Thomas More Univ. College*; Knippels, Ingrid
Mobilab - Thomas More Univ. College; Broeckx, Mario *Mobilab
 - Thomas More Univ. College*; Peeraer, Louis *Mobilab -
 Thomas More Univ. College*
- 10:00-11:30 WeBPoT6.16
**Moddicom: A Complete and Easily Accessible Library for
 Prognostic Evaluations Relying on Image Features**
 Dinapoli, Nicola *Univ. Cattolica del Sacro Cuore*; Allitto, Anna
 Rita *Univ. Cattolica del Sacro Cuore*; Vallati, Mauro *Univ. of
 Huddersfield*; Gatta, Roberto* *Univ. Cattolica del Sacro Cuore*;
 Autorino, Rosa *Univ. Cattolica del Sacro Cuore*; Boldrini, Luca
Univ. Cattolica del Sacro Cuore; Damiani, Andrea *Univ.
 Cattolica del Sacro Cuore*; Valentini, Vincenzo *Univ. Cattolica
 del Sacro Cuore*
- 10:00-11:30 WeBPoT6.17
**A 3D Sparse Motion Field Filtering for Quantitative Analysis
 of Fascial Layers Mobility based on 3D Ultrasound Scans**
 Turini, Giuseppe *Kettering Univ.*; Condino, Sara* *Univ. of Pisa*;
 Stecco, Antonio *Univ. of Padua*; Ferrari, Vincenzo *Univ. di Pisa*;
 Ferrari, Mauro *Univ. of Pisa*; Gesi, Marco *Univ. of Pisa*
- 10:00-11:30 WeBPoT6.18
**Differential Evolution based Advised SVM for Histopathological
 Image Analysis for Skin Cancer Detection**
 Masood, Ammara *Univ. of Technology Sydney*;
 Al-Jumaily, Adel* *Univ. of Technology Sydney*

- 10:00-11:30 WeBPoT6.19
Transfer Learning for Bag-of-Visual Words Approach to NBI Endoscopic Image Classification
 Sonoyama, Shoji *Hiroshima Univ.*; Hirakawa, Tsubasa *Hiroshima Univ.*; Tamaki, Toru* *Hiroshima Univ.*; Kurita, Takio *Hiroshima Univ.*; Raytchev, Bisser *Hiroshima Univ.*; Kaneda, Kazufumi *Hiroshima Univ.*; Koide, Tetsushi *Hiroshima Univ.*; Yoshida, Shigeto *Hiroshima General Hospital of West Japan Railway Company*; Kominami, Yoko *Hiroshima Univ.*; Tanaka, Shinji *Hiroshima Univ.*
- 10:00-11:30 WeBPoT6.20
Preprocessing with Image Denoising and Histogram Equalization for Endoscopy Image Analysis using Texture Analysis
 Hiroyasu, Tomoyuki *Doshisha Univ.*; Hayashinuma, Katsutoshi* *Doshisha Univ.*; Ichikawa, Hiroshi *Doshisha Univ.*; Yagi, Nobuaki *Murakami Memorial Hospital Asahi Univ.*
- 10:00-11:30 WeBPoT6.21
Segmentation of Ultrasound Images of Fetal Anatomic Structures using Random Forest for Low-Cost Settings
 Crimi, Alessandro* *ETH*; Amoah, Benjamin *ETH/AIMS*; Anto, Evelyn *ETH/AIMS*
- 10:00-11:30 WeBPoT6.22
Convolutional Neural Networks for Mammography Mass Lesion Classification
 Arevalo, John *Univ. Nacional de Colombia*; Gonzalez Osorio, Fabio Augusto *Univ. Nacional de Colombia*; Ramos-Pollan, Raul *Univ. Industrial de Santander*; Oliveira, José Luis *DETI/IEETA - Univ. of Aveiro*; Guevara López, Miguel Angel* *Univ. of Aveiro*
- 10:00-11:30 WeBPoT6.23
Feature Extraction Employing Fuzzy-Morphological Decomposition for Detection and Classification of Mass on Mammograms
 Lima, Sidney* *Federal Univ. of Pernambuco*; Azevedo, Washington *Federal Univ. of Pernambuco*; Cordeiro, Filipe *Federal Univ. of Pernambuco*; Silva-Filho, Abel *Federal Univ. of Pernambuco*; dos Santos, Wellington *Univ. Federal de Pernambuco*
- WeBPoT7: 10:00-11:30 Gold Room
3.17 Implantable Sensors II (Poster Session)
- 10:00-11:30 WeBPoT7.1
Development of a Multichannel Implantable Connector
 Koch, Julia* *Univ. of Freiburg*; Ordonez, Juan Sebastian *Univ. of Freiburg*; Stieglitz, Thomas *Univ. of Freiburg*; Schuettler, Martin *Univ. of Freiburg*
- 10:00-11:30 WeBPoT7.2
Non-Hermetic Encapsulation for Implantable Electronic Devices based on Epoxy
 Boeser, Fabian* *Univ. of Freiburg*; Ordonez, Juan Sebastian *Univ. of Freiburg*; Schuettler, Martin *Univ. of Freiburg*; Stieglitz, Thomas *Univ. of Freiburg*; Plachta, Dennis T.T. *Univ. of Freiburg - IMTEK*
- 10:00-11:30 WeBPoT7.3
On the use of Test Gases of Various Radii to Investigate Molecular Sieving in Leak Channels
 Lim, William W* *Univ. of New South Wales*; Bucknall, Martin *Univ. of New South Wales*; Adler, Lewis *Univ. of New South Wales*; McKenzie, David *Univ. of Sydney*; Suaning, Gregg *The Univ. of New South Wales*
- 10:00-11:30 WeBPoT7.4
Safe Inductive Power Transmission to Millimeter-Sized Implantable Microelectronics Devices
 Kiani, Mehdi* *Pennsylvania State Univ.*; Ibrahim, Ahmed *Pennsylvania State Univ.*
- 10:00-11:30 WeBPoT7.5
Deep Tissue Targeted Near-Infrared Optogenetic Stimulation using Fully Implantable Upconverting Light Bulbs
 Chamanzar, Maysamreza* *Univ. of California Berkeley*; Garfield, David *Molecular Foundry, Lawrence Berkeley National Laboratory, CA USA*; lafrati, Jillian *Univ. of California San Francisco*; Sohal, Vikaas *Univ. of California San Francisco*; Chan, Emory *Molecular Foundry, Lawrence Berkeley National Laboratory, CA USA*; Cohen, Bruce *Molecular Foundry, Lawrence Berkeley National Laboratory, CA USA*; Schuck, P. James *Molecular Foundry, Lawrence Berkeley National Laboratory, CA USA*; Maharbiz, Michel *Univ. of California, Berkeley*
- 10:00-11:30 WeBPoT7.6
Adaptive Kalman Filter for Indoor Localization using Bluetooth Low Energy and Inertial Measurement Unit
 Yoon, Paul K.* *Simon Fraser Univ.*; Zihajehzadeh, Shaghayegh *PhD Student, Simon Fraser Univ.*; Kang, Bong-Soo *Hannam Univ.*; Park, Edward J. *Simon Fraser Univ.*
- 10:00-11:30 WeBPoT7.7
A Wireless Monitoring System for Hydrocephalus Shunts
 Narayanaswamy, Anand *Univ. of Texas at Dallas*; Nourani, Mehrdad* *Univ. of Texas at Dallas*; Tamil, Lakshman *Univ. of Texas at Dallas*; Bianco, Sabatino *Bianco Brain & Spine*
- WeBPoT8: 10:00-11:30 Gold Room
3.18 Physiological Monitoring II (Poster Session)
- 10:00-11:30 WeBPoT8.1
A Reconfigurable Medically Cohesive Biomedical Front-End with Σ ADC for in 0.18 μ m CMOS
 Jha, Pankaj* *Indian Institute of Tech. Hyderabad*; Patra, Pravanjan *Indian Institute of Tech. Hyderabad*; Naik, Jairaj *Indian Institute of Tech. Hyderabad*; Acharyya, Amit *Indian Institute of Tech. Hyderabad*; Singh, Shiv Govind *IIT Hyderabad*; P, Rajalakshmi *Indian Institute of Tech. Hyderabad*; Dutta, Ashudeb *Indian Institute of Tech. Hyderabad*
- 10:00-11:30 WeBPoT8.2
A 0.5-V Multi-Channel Low-Noise Readout Front-End for Portable EEG Acquisition
 Huang, Wen-Yen* *Natl. Tsing-Hua Univ.*; Cheng, Yu-Wei *Natl. Tsing-Hua Univ.*; Tang, Kea Tiong *Natl. Tsing Hua Univ.*
- 10:00-11:30 WeBPoT8.3
Estimating Direction and Depth of Visual Fixation using Electrooculography
 Stevenson, Cory* *Univ. of California, San Diego*; Jung, Tzyy-Ping *Univ. of California San Diego*; Cauwenberghs, Gert *Univ. of California San Diego*
- 10:00-11:30 WeBPoT8.4
On the Identification and Interpretation of Human Skin Spectral Responses under Adverse Environmental Conditions
 Baranoski, Gladimir *Univ. of Waterloo*; Chen, Tenn Francis* *Univ. of Waterloo*
- 10:00-11:30 WeBPoT8.5
Liquid Metal based Flexible System for Temperature Monitoring
 Wang, Qian *Chinese Academy of Sciences*; Yu, Yang *Tsinghua Univ.*; Yang, Jun *Chinese Academy of Sciences*; Liu, Jing* *Tsinghua Univ.*
- 10:00-11:30 WeBPoT8.6
A Non-Contact Capacitance based ElectroCardiograph and Associated Heart-Rate Detection using Enhanced Fourier Interpolation Method
 Kumar Thakur, Rupak* *Indian Institute of Tech. Kharagpur*; Chandrika Sreekantan, Anoop *Indian Institute of Tech. Kharagpur*
- 10:00-11:30 WeBPoT8.7
Estimating Respiratory Rate from FBG Optical Sensors
 Zhu, Yongwei* *Institute for Infocomm Research, Agency for Science, Tech.*; Maniyeri, Jayachandran *Institute for Infocomm Research*; Foo, Siang Fook *Victor Institute for Infocomm Research*; Zhang, Haihong *Institute for Infocomm Research*

- 10:00-11:30 WeBPoT8.8
An Ultra Low Power ECG Signal Processor Design for Cardiovascular Disease Detection
Jain, Sanjeev Kumar* *Indian Institute of Technology Delhi*;
Bhambhani, Basabi *Indian Institute of Technology Delhi*
- 10:00-11:30 WeBPoT8.9
Accuracy of Reflectance Photoplethysmography on Detecting Cuff-Induced Vascular Occlusions
Ysehak Abay, Tomas* *City Univ. of London*;
Kyriacou, Panayiotis *City Univ. London*
- 10:00-11:30 WeBPoT8.10
Preliminary Analysis of the use of Smartwatches for Longitudinal Health Monitoring
Jovanov, Emil* *Univ. of Alabama in Huntsville*
- WeBPoT9: 10:00-11:30 Gold Room
3.19 Micro- and Nano-Technology (Poster Session)
- 10:00-11:30 WeBPoT9.1
A Hand-Held Micro Surgical Device for Contact Force Regulation against Involuntary Movements
Kyeong, Seulki *KAIST*; Chang, Dongjune *KAIST*; Kim, Yunjoo *KAIST*; Gu, Gwang Min *KAIST*; Kim, Jung* *Korea Advanced Institute of Science and Technology*
- 10:00-11:30 WeBPoT9.2
Electronic Cages for Living Cells
Al Saeed, Sarah* *Kuwaiti Biomedical Engineering Society*;
Bakewell, David *Univ. of Liverpool*
- 10:00-11:30 WeBPoT9.3
A 512-Channels, Whole Array Readout, CMOS Implantable Probe for Acute Recordings from the Brain
Angotzi, Gian Nicola* *IIT, Genova*; Malerba, Mario *Fondazione Istituto Italiano di Tecnologia*; Zucca, Stefano *Fondazione Istituto Italiano di Tecnologia*; Berdondini, Luca *Istituto Italiano di Tecnologia*
- 10:00-11:30 WeBPoT9.4
Automated Navigation of a Glass Micropipette on a High-Density Microelectrode Array
Lin, Jing *ETH Zurich*; Obien, Marie Engelen* *RIKEN Quantitative Biology Center*; Hierlemann, Andreas *ETH Zurich*;
Frey, Urs *RIKEN*
- 10:00-11:30 WeBPoT9.5
Design of a Wideband CMOS Impedance Spectroscopy ASIC Analog Front-End for Multichannel Biosensor Interfaces
Valente, Virgilio* *Univ. College London*; Jiang, Dai *Univ. College London*; Demosthenous, Andreas *Univ. College London*
- 10:00-11:30 WeBPoT9.6
A 1.04uW Wireless Integrated MEMS Interface in UMC 0.18um CMOS
Laurenson, Callum *Monash Univ.*; Rivet, Francois *Univ. of Bordeaux*; Yuce, Mehmet *Monash Univ.*;
Redouté, Jean-Michel* *Monash Univ.*
- 10:00-11:30 WeBPoT9.7
High-Intensity Static Magnetic Field Exposure Devices for in Vitro Experiments on Biopharmaceutical Plant Factories in Aerospace Environments
Lopresto, Vanni* *ENEA*; Merla, Caterina *ENEA*;
Pinto, Rosanna *ENEA*; Benvenuto, Eugenio *ENEA*
- 10:00-11:30 WeBPoT9.8
Design Optimization of the Sensor Spatial Arrangement in a Direct Magnetic Field-Based Localization System for Medical Applications
Maréchal, Luc *SUTD (Singapore Univ. of Technology and Design)*; Foong, Shaohui* *Singapore Univ. of Technology and Design (SUTD)*; Sun, Zhenglong *Singapore Univ. of Technology and Design (SUTD)*; Wood, Kristin *Singapore Univ. of Technology and Design (SUTD)*

- WeBPoT10: 10:00-11:30 Gold Room
4.12 Biomechanics Modeling (Poster Session)
- 10:00-11:30 WeBPoT10.1
Inferring Intra-Cellular Mechanics using Geometric Metamorphosis: A Preliminary Study
Hussan, Jagir R.* *Univ. of Auckland*; Hunter, Peter *Univ. of Auckland*
- 10:00-11:30 WeBPoT10.2
Stiffness Matrix Representation of Hyper-Elasticity for Surgical Simulation and Navigation
Nishiyama, Shuhei* *Osaka Univ.*; Kuroda, Yoshihiro *Osaka Univ.*; Takemura, Haruo *Osaka Univ.*
- 10:00-11:30 WeBPoT10.3
Development of a Finite Element Model of a Finger Pad for Biomechanics of Human Tactile Sensations
Vodlak, Teja* *Swansea Univ.*; Vidrih, Zlatko *Swansea Univ.*;
Fetih, Dusan *C3M, Centre for Computational Continuum Mechanics*; Peric, Djordje *Swansea Univ.*; Rodic, Tomaz *C3M, Centre for Computational Continuum Mechanics*
- 10:00-11:30 WeBPoT10.4
Combined Approach for the Biomechanical Characterization of Skin Lesions
Franzetti, Gaia* *Politecnico di Milano*; Crippa, Federica *Politecnico di Milano*; Cutri, Elena *Dept. of Chemistry, Materials and Chemical Engineering Depa*; Spatafora, Grazia *Dept. of Chemistry, Materials and Chemical Engineering Depa*; Montin, Eros *Politecnico di Milano*; Mainardi, Luca *Politecnico di Milano*;
Spadola, Giuseppe *Dermatocological Surgery Division, Istituto Europeo di Oncologia*; Testori, Alessandro *Dermatocological Surgery Division, Istituto Europeo di Oncologia*; Pennati, Giancarlo *Dept. of Chemistry, Materials and Chemical Engineering Depa*
- 10:00-11:30 WeBPoT10.5
Implementation of a 3D Porcine Lumbar Finite Element Model for the Simulation of Monolithic Spinal Rods with Variable Flexural Stiffness
Brummund, Martin* *École de Technologie Supérieure*;
Brailovski, Vladimir *Ecole de technologie supérieure*;
Facchinello, Yann *École de Technologie Supérieure*; Petit, Yvan *École de Technologie Supérieure*; Mac-Thiong, Jean-Marc *Dept. of surgery, Faculty of Medicine, Univ. of Montre*
- 10:00-11:30 WeBPoT10.6
A Mechano-Regulatory Model for Bone Healing Predictions under the Influence of Ultrasound
Vavva, Maria *Univ. of Ioannina*; Grivas, Konstantinos *Dept. of Mechanical Engineering and Aeronautics, Univ.*; Aurelie, Carlier *Dept. of Mechanical Engineering, KU Leuven, Leuven*; Polyzos, Demosthenes *Univ. of Patras*; Geris, Liesbet *Univ. de Liège, Biomechanics Research Unit; KU Leuven, Prom*; Van Oosterwyck, Hans *Dept. of Mechanical Engineering, KU Leuven, Leuven, Belgium*; Fotiadis, Dimitrios I.* *Univ. of Ioannina*
- 10:00-11:30 WeBPoT10.7
Effect of Modeling Parameters on the Frequency Response of the Middle Ear by Means of Finite Element Analysis
Spiridon, Ioannis *Unit of Medical Technology and Intelligent Information Systems*; Sakellarios, Antonis *Univ. of Ioannina*;
Rigas, Georgios *Univ. of Ioannina*; Tagaris, Anastassios *National Technical Univ. of Athens*; Bellos, Christos *National Technical Univ. of Athens*; Bibas, Thanos *Univ. of Athens*;
Böhnke, Frank *Technical Univ. of Munich*; Iliopoulou, Dimitra *National Technical Univ. of Athens*; Koutsouris, Dimitrios *Biomedical Engineering Laboratory, School of Electrical and Comp*; Fotiadis, Dimitrios I.* *Univ. of Ioannina*
- 10:00-11:30 WeBPoT10.8
Compliance Boundary Conditions for Simulating Deformations in a Limited Target Region
Ozkan, Ece* *ETH Zurich*; Goksel, Orcun *ETH Zurich*

- 10:00-11:30 WeBPoT10.9
Recovering the Mechanical Properties of Denatured Intervertebral Discs through Platelet-Rich Plasma Therapy
 Khalaf, Kinda* *KUSTAR*; Nikkhoo, Mohammad *Science and Research Branch, Islamic Azad Univ.*; Kuo, Y.W. *National Taiwan Univ.*; Hsu, Y.C. *National Taiwan Univ.*; Parnianpour, Mohammad *Sharif Univ. of Technology*; Campbell-Kyureghyan, Naira *Univ. of Wisconsin*; Haghpanahi, Mohammad *Iran Univ. of Science and Tech*; Wang, J.L. *National Taiwan Univ.*
- 10:00-11:30 WeBPoT11.1
Reconfigurable Neuromorphic Computation in Biochemical Systems
 Chiang, Hui-Ju *Katherine National Taiwan Univ.*, *Inria Paris-Rocquencourt*; Jiang, Jie-Hong R.* *National Taiwan Univ.*; Fages, François *Inria Paris-Rocquencourt*
- 10:00-11:30 WeBPoT11.2
Retroactivity Analysis of a Chemical Reaction Network Module for the Subtraction of Molecular Fluxes
 Bilotta, Mariaconcetta* *Univ. Magna Graecia di Catanzaro*; Cosentino, Carlo *Univ. degli Studi Magna Graecia di Catanzaro*; Bates, Declan Gerard *Univ. of Warwick*; Salerno, Luca *Univ. degli Studi Magna Graecia di Catanzaro*; Amato, Francesco *Univ. degli Studi Magna Graecia di Catanzaro*
- 10:00-11:30 WeBPoT11.3
Development and Experimental Validation of a Mechanistic Model of in Vitro DNA Recombination
 Bowyer, Jack Edward* *Univ. of Warwick*; Bates, Declan Gerard *Univ. of Warwick*
- 10:00-11:30 WeBPoT11.4
Biomolecular Implementation of a Quasi Sliding Mode Feedback Controller based on DNA Strand Displacement Reactions
 Sawlekar, Rucha* *Univ. of Warwick*; Montefusco, Francesco *Univ. of Padova*; Kulkarni, Vishwesh *Univ. of Warwick*; Bates, Declan Gerard *Univ. of Warwick*
- 10:00-11:30 WeBPoT11.5
Methods for Genetic Optimization of Biocatalysts for Biofuel Production from Dairy Waste through Synthetic Biology
 Pasotti, Lorenzo* *Univ. of Pavia, via Ferrata 5, Pavia, I-27100, Italy*; Zucca, Susanna *Dept. of Electrical, Computer and Biomedical Engineering, U*; Casanova, Michela *Dept. of Electrical, Computer and Biomedical Engineering, U*; Politi, Nicolo' *Dept. of Electrical, Computer and Biomedical Engineering, U*; Massaiu, Ilaria *Dept. of Electrical, Computer and Biomedical Engineering, U*; Mazzini, Giuliano *Institute of Molecular Genetics, National Resource Council, via*; Micoli, Giuseppina *Centro di Ricerche Ambientali, IRCCS Fondazione Salvatore Mauger*; Calvio, Cinzia *Dept. of Biology and BioTechnology "Lazzaro Spallanzani"*, U; Cusella De Angelis, Maria Gabriella *Dept. of Public Health, Experimental Medicine and Forensics*; Magni, Paolo *Univ. of Pavia*
- 10:00-11:30 WeBPoT12.1
Changes in Inflammatory Response During and After Cardiopulmonary Bypass using a Rat Extracorporeal Circulation Model
 Fujii, Yutaka* *National cerebral and cardiovascular Center Research Institute*; Shirai, Mikiyasu *National Cardiovascular Center Research Institute*; Pearson, James *Monash Univ.*; Takewa, Yoshiaki *Dept. of Artificial Organs, National Cerebral and Cardiovas*; Tatsumi, Eisuke *Dept. of Artificial Organs, National Cerebral and Cardiovas*
- 10:00-11:30 WeBPoT12.2
Effect of in Vivo Flow Dynamics on Angiogenesis by Computational Modeling
 Ghaffari, Siavash* *McGill*; Leask, Richard *McGill*; Jones, Elizabeth *KU Leuven*
- 10:00-11:30 WeBPoT12.3
GPU-Accelerated Model for Fast, Three-Dimensional Fluid-Structure Interaction Computations
 Nita, Cosmin* *Transilvania Univ. of Brasov*; Itu, Lucian *Transilvania Univ. of Brasov*; Mihalef, Viorel *Siemens Corporate Research*; Sharma, Puneet *Siemens Corporation, Corporate Technology*; Rapaka, Saikiran *Siemens Corporate Technology*
- 10:00-11:30 WeBPoT12.4
CFD Analysis of Unsteady Flow through Conjoining Aorta and Aortic Isthmus
 Gunter, Amy Lee *Concordia Univ.*; Keshavarz-Motamed, Zahra *Concordia Univ.*; Portaro, Rocco* *Concordia Univ.*; Kadem, Lyes *Concordia Univ.*; Ng, Hoi Dick *Concordia Univ.*
- 10:00-11:30 WeBPoT12.5
Validation Study of a 3D-QCA Coronary Reconstruction Method using a Hybrid IntraVascular UltraSound and Angiography Reconstruction Method and Patient-Specific Fractional Flow Reserve Data
 Siogkas, Panagiotis *FORTH-IMBB*; Athanasiou, Lambros *Univ. of Ioannina*; Sakellarios, Antonis *Univ. of Ioannina*; Stefanou, Kostas *FORTH-BRI*; Exarchos, Themis P. *Unit of Medical Tech & Intelligent Info*; Papafaklis, Michail *Medical School, Univ. of Ioannina*; Naka, Katerina *Univ. of Ioannina*; Parodi, Oberdan *CNR Clinical Physiology Institute - Milan*; Michalis, Lampros *Univ. of Ioannina*; Fotiadis, Dimitrios I.* *Univ. of Ioannina*
- 10:00-11:30 WeBPoT12.6
Numerical Analysis of the Hemodynamics of an Abdominal Aortic Aneurysm Repaired using the Endovascular Chimney Technique
 Ben Gur, Hila* *School of Mechanical Eng., Faculty of Eng., Tel Av*; Kosa, Gabor *Tel Aviv Univ., School of Mechanical Eng.*; Moshe, Brand *Ariel Univ. Center of Samaria*
- 10:00-11:30 WeBPoT12.7
Computational Analysis of Stenosis Geometry Effects on Right Coronary Hemodynamics
 Caruso, Maria Vittoria *Magna Graecia Univ.*; De Rosa, Salvatore *Magna Graecia Univ.*; Indolfi, Ciro *Magna Graecia Univ.*; Fragomeni, Gionata* *Magna Graecia Univ of Catanzaro*
- WeBPoT13: 10:00-11:30 Gold Room
5.11 Arterial Pressure (Poster Session)
- 10:00-11:30 WeBPoT13.1
Predicting Hyperlactatemia in the MIMIC II Database
 Dunitz, Max* *MIT*; Verghese, George *Massachusetts Institute of Tech.*; Heldt, Thomas *Massachusetts Institute of Tech.*
- 10:00-11:30 WeBPoT13.2
Intraoperative Hemodynamics Predict Postoperative Mortality in Orthotopic Liver Transplantation
 Prasad, Varesh* *Massachusetts Institute of Technology*; Toschi, Nicola *Univ. of Rome "Tor Vergata", Faculty of Medicine*; Canichella, Antonio *Univ. of Rome "Tor Vergata"*; Marcellucci, Martina *Univ. of Rome "Tor Vergata"*; Coniglione, Filadelfo *Univ. of Rome "Tor Vergata"*; Dauri, Mario *Univ. of Rome "Tor Vergata"*; Guerrisi, Maria *Univ. of Rome "Tor Vergata"*; Heldt, Thomas *Massachusetts Institute of Technology*
- 10:00-11:30 WeBPoT13.3
Investigation of the Composition of Arterial Plaques based on Arterial Waveforms and Material Properties
 Feng, Jiling* *Manchester Metropolitan Univ.*; Rajeswaran, T *Manchester Metropolitan Univ.*; Alexander, Yvonne *Manchester Metropolitan Univ.*; Wilkinson, Fiona *Manchester Metropolitan Univ.*; Azzawi, May *Manchester Metropolitan Univ.*; Parikh, V *Bolton Univ.*; Mirafab, M. *Bolton Univ.*; Serracino-Inglott, Ferdinand *Manchester Royal Infirmary*
- 10:00-11:30 WeBPoT13.4
Cardiovascular System Identification: Simulation Study using Arterial and Central Venous Pressures
 Karamolegkos, Nikolaos* *Columbia Univ.*; Vicario, Francesco *Philips Research North America*; Chbat, Nicolas W. *Philips Research North America*
- WeBPoT11: 10:00-11:30 Gold Room
4.13 Synthetic Biology (Poster Session)
- WeBPoT12: 10:00-11:30 Gold Room
5.10 Blood Flow Models (Poster Session)

- 10:00-11:30 WeBPoT13.5
An Assessment of the Relationship between Dicrotic Notch Timing and Cardiac Preload
 Kannangara, Don Oliver *Univ. of Canterbury*; Davidson, Shaun *Univ. of Canterbury*; Pretty, Christopher G.* *Univ. of Canterbury*; Kamoi, Shun *Univ. of Canterbury*; Corbett-Davies, Joseph *Univ. of Canterbury*; Desai, Thomas *Univ. of Liege*; Shaw, Geoffrey M *Christchurch Hospital*; Chase, J. Geoffrey *Univ. of Canterbury*
- 10:00-11:30 WeBPoT13.6
Stroke Volume Estimation using Aortic Pressure Measurements and Aortic Cross Sectional Area: Proof of Concept
 Kamoi, Shun* *Univ. of Canterbury*; Pretty, Christopher G. *Univ. of Canterbury*; Chiew, Yeong Shiong *Univ. of Canterbury*; Pironet, Antoine *Univ. of Liège (ULg), GIGA-Cardiovascular Sciences, Liège*; Davidson, Shaun *Univ. of Canterbury*; Desai, Thomas *Univ. of Liege*; Shaw, Geoffrey M *Christchurch Hospital*; Chase, J. Geoffrey *Univ. of Canterbury*
- 10:00-11:30 WeBPoT13.7
Wave Speed and Reflections Proximal to Aneurysm and Stenosis of Flexible Tubes
 Hacham, Wisam *Univ. of Baghdad*; Abdullah, Najdat *Univ. of Baghdad*; Al-Ammri, A.Salam *Univ. of Baghdad*; Khir, Ashraf* *Brunel Univ.*
- 10:00-11:30 WeBPoT13.8
Computational Analysis of Hemodynamic Parameters of MMD Patients Treated with STA-MCA Bypass
 Karunanithi, Kaavya* *Macquarie Univ.*; Zhu, Fengping *Shanghai Medical College, Fudan Univ.*; Qian, Yi *Macquarie Univ.*; Mao, Ying *Huashan Hospital, Fudan Univ.*
- WeBPoT14: 10:00-11:30 Gold Room
6.29 Neural Interfaces II (Poster Session)
- 10:00-11:30 WeBPoT14.1
Chronic and Low Charge Injection Wireless Intraneural Stimulation in Vivo
 Romero-Ortega, Mario* *Univ. of Texas at Dallas*; Kanneganti, Aswini *Univ. of Texas at Arlington*; Bendale, Geetanjali *Univ. of Texas at Dallas*; Seifert, Jennifer *Univ. of Texas at Dallas*; Bredeson, Samuel *Illinois Institute of Technology*; Troyk, Philip *Illinois Institute of Technology*; Deku, Felix *Univ. of Texas at Dallas*; Cogan, Stuart *EIC Laboratories, Inc.*
- 10:00-11:30 WeBPoT14.2
Chronic In-Vivo Testing of a 16-Channel Implantable Wireless Neural Stimulator
 Bredeson, Samuel* *Illinois Institute of Technology*; Kanneganti, Aswini *Univ. of Texas at Arlington*; Deku, Felix *Univ. of Texas at Dallas*; Cogan, Stuart *EIC Laboratories, Inc.*; Romero-Ortega, Mario *Univ. of Texas at Dallas*; Troyk, Philip *Illinois Institute of Technology*
- 10:00-11:30 WeBPoT14.3
Design of Mechanical Interface to Re-Distribute Excess Pressure to Prevent the Formation of Decubitus Ulcers in Bed Ridden Patients
 Nageswaran, Sharmila *VIT Univ.*; Vijayakumar, Rekha *VIT Univ.*; Sivarasu, Sudesh* *Univ. of Cape Town*
- 10:00-11:30 WeBPoT14.4
Towards Out-of-the-Lab EEG in Uncontrolled Environments: Feasibility Study of Dry EEG Recordings during Exercise Bike Riding
 Kohli, Siddharth* *The Univ. of Manchester*; Casson, Alexander James *The Univ. of Manchester*
- 10:00-11:30 WeBPoT14.5
KDI: A Wireless ECoG Recording Platform with Impedance Spectroscopy, Electrical Stimulation and Real-Time, Lossless Data Compression
 Foerster, Michael* *CEA/LETI, MINATEC Campus*; Burdin, Florent *CEA LETI CLINATEC*; Safont, Franck *CEA LETI CLINATEC*; Bernert, Marie *CEA LETI CLINATEC*; Dehaene, David *CEA/LETI, MINATEC Campus*; Lambert, Aurélien *CEA LETI CLINATEC*; Charvet, Guillaume *CEA/LETI, MINATEC campus*
- 10:00-11:30 WeBPoT14.6
An Implantable Wireless Optogenetic Stimulation System for Peripheral Nerve Control
 Song, Kang-Il* *Korea Institute of Science and Technology*; Park, Sunghye *Korea Institute of Science and Technology*; Kim, Myoung-Soo *Yonsei Univ.*; Joo, Chulmin *Yonsei Univ.*; Kim, Yongjun *Yonsei Univ.*; Suh, Jun-Kyo *Korea Institute of Science and Technology*; Hwang, Dosik *Yonsei Univ.*; Youn, Inchan *Korea Institute of Science and Technology*
- 10:00-11:30 WeBPoT14.7
A Current-Excited Triple-Time-Voltage Oversampling Method for Bio-Impedance Model for Cost-Efficient Circuit System
 Hong, Yan* *Nanyang Technological Univ.*; Wang, Yong *Nanyang Technological Univ.*; Goh, Wang Ling *Nanyang Technological Univ.*; Gao, Yuan *Institute of Microelectronics, Singapore*; Yao, Lei *Institute of Microelectronics, Singapore*
- 10:00-11:30 WeBPoT14.8
Restoration of Vision using Wireless Cortical Implants: The Monash Vision Group Project
 Lowery, Arthur James* *Monash Univ.*; Rosenfeld, Jeffrey V. *Monash Univ.*; Lewis, Philip Mark *Monash Univ.*; Browne, Damien *Monash Vision Group, Monash Univ.*; Mohan, Anand *Monash Univ.*; Brunton, Emma Kate *Monash Univ.*; Yan, Edwin *Monash Univ.*; Maller, Jerome *Monash Univ.*; Mann, Collette *Monash Vision Group, Monash Univ.*; Rajan, Ramesh *Monash Univ.*; Rosa, Marcello *Monash Univ.*; Pritchard, Jeanette *Monash Vision Group*
- 10:00-11:30 WeBPoT14.9
Mechanical Deformation of Thin Film Platinum under Electrical Stimulation
 Ordonez, Juan Sebastian* *Univ. of Freiburg*; Rudmann, Linda *Univ. of Freiburg*; Cvancara, Paul *IMTEK, Univ. of Freiburg*; Bentler, Christian *Univ. Freiburg*; Stieglitz, Thomas *Univ. of Freiburg*
- WeBPoT15: 10:00-11:30 Gold Room
6.30 Brain-Computer/Machine Interface V (Poster Session)
- 10:00-11:30 WeBPoT15.1
A Co-Adaptive Sensory Motor Rhythms Brain-Computer Interface based on Common Spatial Patterns and Random Forest
 Schwarz, Andreas *Graz Univ. of Technology*; Scherer, Reinhold* *Graz Univ. of Technology*; Steyrl, David *Graz Univ. of Technology*; Faller, Josef *Graz Univ. of Technology*; Müller-Putz, Gernot *Graz Univ. of Technology*
- 10:00-11:30 WeBPoT15.2
Sheet Music by Mind: Towards a Brain-Computer Interface for Composing
 Pinegger, Andreas *Graz Univ. of Technology*; Wriessnegger, Selina* *Graz Univ. of Technology*; Müller-Putz, Gernot *Graz Univ. of Technology*
- 10:00-11:30 WeBPoT15.3
A Dynamic Stopping Method for Improving Performance of Steady-State Visual Evoked Potential based Brain-Computer Interfaces
 Nakanishi, Masaki* *Univ. of California San Diego*; Wang, Yijun *Univ. of California, San Diego*; Wang, Yu-Te *Univ. of California San Diego*; Jung, Tzzy-Ping *Univ. of California San Diego*
- 10:00-11:30 WeBPoT15.4
Leveraging Historical Knowledge of Neural Dynamics to Rescue Decoder Performance as Neural Channels are Lost: "Decoder Hysteresis"
 Kao, Jonathan* *Stanford Univ.*; Ryu, Stephen *Stanford Univ.*; Shenoy, Krishna V. *Stanford Univ.*
- 10:00-11:30 WeBPoT15.5
A Multimodal 2D Brain Computer Interface
 Almajidy, Rand Kasim* *Univ. Medical Center, Freiburg Dept. of Neurosurgery*; Boudria, Yacine *Univ. of Rhode Island*; Hofmann, Ulrich G. *Univ. of Freiburg*; Besio, W. G. *Univ. of Rhode Island*; Mankodiya, Kunal *Univ. of Rhode Island*

10:00-11:30	WeBPoT15.6	Head-Related Impulse Response Cues for Spatial Auditory Brain-Computer Interface Nakaizumi, Chisaki <i>Univ. of Tsukuba</i> ; Makino, Shoji <i>Univ. of Tsukuba</i> ; Rutkowski, Tomasz* <i>Univ. of Tsukuba</i>	10:00-11:30	WeBPoT15.17	Detecting Intention to Grasp during Reaching Movements from EEG Randazzo, Luca* <i>EPFL</i> ; Iturrate, Inaki <i>EPFL</i> ; Chavarriaga, Ricardo <i>Ecole Polytechnique Federale de Lausanne</i> ; Leeb, Robert <i>Ecole Polytechnique Fédérale de Lausanne</i> ; Millán, José del R. <i>Ecole Polytechnique Federale de Lausanne</i>
10:00-11:30	WeBPoT15.7	Region based Brain Computer Interface for a Home Control Application Akman Aydin, Eda* <i>Gazi Univ.</i> ; Bay, Omer Faruk <i>Gazi Univ.</i> ; Guler, Inan <i>Gazi Univ.</i>	WeBPoT16: 10:00-11:30 Gold Room 6.31 Motor Neuroprotheses II (Poster Session)		
10:00-11:30	WeBPoT15.8	Is Breathing Rate a Confounding Variable in Brain-Computer Interfaces (BCIs) based on EEG Spectral Power? Ibarra Chaoul, Andrea* <i>Univ. of Tuebingen</i> ; Grosse-Wentrup, Moritz <i>Max Planck Institute for Biological Cybernetics</i>	10:00-11:30	WeBPoT16.1	Real-Time Simultaneous Myoelectric Control by Transradial Amputees using Linear and Probability-Weighted Regression Smith, Lauren <i>Northwestern Univ.</i> ; Kuiken, Todd <i>Rehabilitation Institute of Chicago</i> ; Hargrove, Levi* <i>Rehabilitation Institute of Chicago</i>
10:00-11:30	WeBPoT15.9	Comparing Metrics to Evaluate Performance of Regression Methods for Decoding of Neural Signals Spüler, Martin* <i>Univ. of Tübingen</i> ; Sarasola-Sanz, Andrea <i>Univ. of Tübingen</i> ; Birbaumer, Niels <i>Eberhard-Karls-Univ.</i> ; Rosenstiel, Wolfgang <i>Dept. of Computer Engineering, Univ. Tübingen, Germany</i> ; Ramos-Murguialday, Ander <i>Eberhard Karls Univ. of Tubingen/TECNALIA</i>	10:00-11:30	WeBPoT16.2	Iron 'ElectriRx' Man: Overground Stepping in an Exoskeleton Combined with Noninvasive Spinal Cord Stimulation after Paralysis Gad, Parag <i>Univ. of California, Los Angeles</i> ; Gerasimenko, Yury <i>Univ. of California, Los Angeles</i> ; Zdunowski, Sharon <i>Univ. of California, Los Angeles, Dept. of Integrative</i> ; Sayenko, Dimitry <i>Univ. of California, Los Angeles, Dept. of Integrative</i> ; Haakana, Piia <i>Univ. of California, Los Angeles, Dept. of Neurosurger</i> ; Turner, Amanda <i>Univ. of California, Los Angeles, Dept. of Integrative</i> ; Lu, Daniel <i>Univ. of California, Los Angeles, Dept. of Neurosurger</i> ; Roy, Roland <i>Univ. of California, Los Angeles</i> ; Edgerton, V Reggie* <i>Univ. of California, Los Angeles</i>
10:00-11:30	WeBPoT15.10	A Brain-Computer Interface (BCI) System to use Arbitrary Windows Applications by Directly Controlling Mouse and Keyboard Spüler, Martin* <i>Univ. of Tübingen</i>	10:00-11:30	WeBPoT16.3	Detection of Critical Errors of Locomotion Mode Recognition for Volitional Control of Powered Transfemoral Protheses Zhang, Fan <i>North Carolina State Univ. and Univ. of North Carolina</i> ; Liu, Ming <i>NC State Univ.</i> ; Huang, He* <i>North Carolina State Univ. and Univ. of North Carolina</i>
10:00-11:30	WeBPoT15.11	Combining Firing Rate and Spike-Train Synchrony Features in the Decoding of Motor Cortical Activity Chew, Gabriel* <i>Institute for Infocomm Research, Agency for Science, Technology</i> ; Ang, Kai Keng <i>Institute for Infocomm Research</i> ; So, Rosa <i>Institute for Infocomm Research</i> ; Xu, Zhiming <i>Institute for Infocomm Research, Agency for Science, Technology</i> ; Guan, Cuntai <i>Institute for Infocomm Research</i>	10:00-11:30	WeBPoT16.4	Musculoskeletal Model Predicts Multi-Joint Wrist and Hand Movement from Limited EMG Control Signals Crouch, Dustin <i>North Carolina State Univ.</i> ; Huang, He* <i>North Carolina State Univ. and Univ. of North Carolina</i>
10:00-11:30	WeBPoT15.12	Towards SSVEP-Based, Portable, Responsive Brain-Computer Interface Kaczmarek, Piotr* <i>Poznan Univ. of Technology</i> ; Salomon, Paweł <i>Poznan Univ. of Technology</i>	10:00-11:30	WeBPoT16.5	Muscle Synergies for Reliable Classification of Arm Motions using Myoelectric Interface Antuvan, Chris Wilson <i>Nanyang Technological Univ.</i> ; Bisio, Federica <i>Univ. of Genoa</i> ; Cambria, Erik <i>Nanyang Technological Univ.</i> ; Masia, Lorenzo* <i>Nanyang Technological Univ.</i>
10:00-11:30	WeBPoT15.13	A Generalizable Adaptive Brain-Machine Interface Design for Control of Anesthesia Yang, Yuxiao <i>Univ. of Southern California</i> ; Shanechi, Maryam* <i>Univ. of Southern California</i>	10:00-11:30	WeBPoT16.6	Offline Accuracy: A Potentially Misleading Metric in Myoelectric Pattern Recognition for Prosthetic Control Ortiz-Catalan, Max* <i>Chalmers Univ. of Tech.</i> ; Rouhani, Faezeh <i>Chalmers Univ. of Tech.</i> ; Brånemark, Rickard <i>Gothenburg Univ.</i> ; Häkansson, Bo <i>Chalmers Univ. of Tech.</i>
10:00-11:30	WeBPoT15.14	Immersive BCI with SSVEP in VR Head-Mounted Display Koo, Bonkon <i>POSTECH</i> ; Lee, Hwan-Gon <i>Hallym Univ.</i> ; Nam, Yunjun <i>POSTECH</i> ; Choi, Seungjin* <i>Pohang Univ. of Science and Technology</i>	10:00-11:30	WeBPoT16.7	A Comparison of Open-Loop and Closed-Loop Adaptive Calibration for Pattern Recognition based Myoelectric Control He, Jiayuan <i>Shanghai Jiao Tong Univ.</i> ; Zhang, Dingguo <i>Shanghai Jiao Tong Univ.</i> ; Sheng, Xinjun* <i>Shanghai Jiao Tong Univ.</i> ; Zhu, Xiangyang <i>Shanghai Jiao Tong Univ.</i>
10:00-11:30	WeBPoT15.15	Brain-Machine Interfaces for Assistive Smart Homes: A Feasibility Study with Wearable Near-Infrared Spectroscopy Ogawa, Takeshi* <i>ATR Cognitive Mechanisms Laboratories</i> ; Hirayama, Jun-ichiro <i>Advanced Telecommunications Research Institute International (ATR)</i> ; Pankaj, Gupta <i>ATR Cognitive Mechanisms Laboratories</i> ; Moriya, Hiroki <i>ATR Cognitive Mechanisms Laboratories</i> ; Yamaguchi, Shumpei <i>Shimadzu Corp.</i> ; Ishikawa, Akihiro <i>Shimadzu Corp.</i> ; Inoue, Yoshihiro <i>Shimadzu Corp.</i> ; Kawanabe, Motoaki <i>ATR Cognitive Mechanisms Laboratories</i> ; Ishii, Shin <i>ATR Neural Information Analysis Laboratories, Dept. of Dynamic B</i>	WeBPoT17: 10:00-11:30 Gold Room 8.13 Human Machine Interfaces and Robotics Applications (Poster Session)		
10:00-11:30	WeBPoT15.16	Decoding Fast-Paced Error-Related Potentials in Monitoring Protocols Chavarriaga, Ricardo* <i>Ecole Polytechnique Federale de Lausanne</i> ; Iturrate, Inaki <i>EPFL</i> ; Wannebroucq, Quentin <i>EPFL</i> ; Millán, José del R. <i>Ecole Polytechnique Federale de Lausanne</i>	10:00-11:30	WeBPoT17.1	Evaluation of Touch-Sensitive Screen Tablet Terminal Button Size and Spacing Accounting for Effect of Fingertip Contact Angle Nishimura, Takahiro* <i>National Institute of Special Needs Education</i> ; Doi, Kouki <i>National Institute of Special Needs Education</i> ; Fujimoto, Hiroshi <i>Waseda Univ.</i>

10:00-11:30 WeBPoT17.2
An Online Hybrid Brain-Computer Interface Combining Multiple Physiological Signals for Webpage Browse
 Chen, Long *Tianjin Univ.*; Wang, Zhongpeng *Tianjin Univ.*; He, Feng *Tianjin Univ.*; Yang, Jiajia *Tianjin Univ.*; Qi, Hongzhi *Tianjin Univ.*; Zhou, Peng *Tianjin Univ.*; Wan, Bai-kun *Tianjin Univ.*; Ming, Dong* *Tianjin Univ.*

10:00-11:30 WeBPoT19.4
Kinematic Reconstruction of the Human Arm Joints in Robot-Aided Therapies with Hermes Robot
 Bertomeu-Motos, Arturo* *Univ. Miguel Hernandez de Elche*; Morales, Ricardo, Ricardo *Univ. Miguel Hernandez*; Lledó Pérez, Luis Daniel *Univ. Miguel Hernández de Elche*; Díez Pomares, Jorge *Univ. Miguel Hernández de Elche*; Catalán Orts, Jose María *Univ. Miguel Hernandez de Elche*; Garcia-Aracil, Nicolas *Univ. Miguel Hernandez*

10:00-11:30 WeBPoT17.3
Development of a Haptic Interface for Motor Rehabilitation Therapy using Augmented Reality
 Vidrios-Serrano, Carlos *Univ. Autonoma de Nayarit*; Bonilla, Isela* *Univ. Autonoma de San Luis Potosi*; Viguera-Gomez, Flavio *Univ. Autonoma de San Luis Potosi*; Mendoza, Marco *Univ. Autonoma de San Luis Potosi*

WeBPoT20: 10:00-11:30 Gold Room
9.11 Clinical Engineering II (Poster Session)

10:00-11:30 WeBPoT17.4
Operation Assistance for the Bio-Remote Environmental Control System using a Bayesian Network-Based Prediction Model
 Shibanoki, Taro* *Ibaraki Univ.*; Nakamura, Go *the Hyogo Rehabilitation Center*; Shima, Keisuke *Yokohama National Univ.*; Chin, Takaaki *Hyogo Rehabilitation Center*; Tsuji, Toshio *Hiroshima Univ.*

10:00-11:30 WeBPoT20.1
Development of Implantable Hemodialysis System using PES Membranes with Higher Water-Permeability
 To, Naoya* *Keio Univ.*; Sanada, Ippei *Keio Univ.*; Ito, Hikaru *Keio Univ.*; Morita, Shinya *Keio Univ.*; Kanno, Yoshihiko *Tokyo Medical Univ.*; Miki, Norihisa *Keio Univ.*

WeBPoT18: 10:00-11:30 Gold Room
8.14 Haptic Interfaces (Poster Session)

10:00-11:30 WeBPoT20.2
Development and Integration of a Surveillance Monitoring Solution to Provide Earlier Detection of the Deteriorating Patient
 Donnelly, Nicola* *Intelesens*; Harper, Roy *NHS*; Branagh, David *Intelesens*; Francey, Jonathan *Intelesens*; Collins, Holly *Intelesens*; Faro-Maza, Virginia *Intelesens*; Hunniford, Thomas *Intelesens*; Mooney, Andrew *Intelesens*; McLaughlin, James *Univ. of Ulster*

10:00-11:30 WeBPoT18.1
Displaying Shape Haptically using MRF-Based Device
 Rizzo, Rocco *Univ. of Pisa*; Musolino, Antonino *Univ. of Pisa*; Tucci, Mauro *Univ. of Pisa*; Jones, Lynette* *Massachusetts Institute of Technology*

10:00-11:30 WeBPoT20.3
Determining the Variability in O2 Saturation Measurements in Devices of the "Dr. Guillermo Rawson" Hospital
 Muñoz Zapata, Fernando Jorge* *National Univ. of San Juan*; Pulentá, Luis *Hospital Rawson*; Bustamante, Paola Andrea *Univ. Nacional de San Juan*; Avila Perona, Enrique Mario *National Univ. of San Juan*

10:00-11:30 WeBPoT18.2
A Dual-User Teleoperation System with Online Authority Adjustment for Haptic Training
 Liu, Fei* *INSA de Lyon*; Lelevé, Arnaud *INSA de Lyon*; Eberard, Damien *INSA de Lyon*; Redarce, Tanneguy *Institute National des Sciences Appliquées (INSA de Lyon)*

10:00-11:30 WeBPoT20.4
Sleep State Classification using Pressure Sensor Mats
 Baran Pouyan, Maziyar *Univ. of Texas at Dallas*; Nourani, Mehrdad* *Univ. of Texas at Dallas*; Pompeo, Matthew *Presbyterian Wound Care Clinic*

10:00-11:30 WeBPoT18.3
Large Displacement Haptic Stimulus Actuator using Piezoelectric Pump for Wearable Devices
 Kodama, Taisuke* *Kobe Univ.*; Izumi, Shintaro *Kobe Univ.*; Masaki, Kana *Kobe Univ.*; Kawaguchi, Hiroshi *Kobe Univ.*; Maenaka, Kazusuke *Univ of Hyogo*; Yoshimoto, Masahiko *Kobe Univ.*

10:00-11:30 WeBPoT20.5
The Dimensioning and Development of Hospital Electric Installations to Guarantee the Continuity of use of the Therapeutic and Diagnostic System
 Stroili, Manuela* *Ospedali Riuniti e Univ. di Trieste*; Pavan, Elena *Clio Univ. Hospital Ospedali Riuniti di Trieste*; Gorela, Marino *Univ. Hospital Ospedali Riuniti di Trieste*; Kenda, Fulvio *Univ. Hospital Ospedali Riuniti di Trieste*

WeBPoT19: 10:00-11:30 Gold Room
8.15 Design and Development of Robots for Human-Robot Interaction (Poster Session)

10:00-11:30 WeBPoT19.1
A Multi-Stage Design Framework for the Development of Task-Specific Robotic Exoskeletons
 Carmichael, Marc Garry* *Univ. of Technology, Sydney*; Khonasty, Richardo *Univ. of Technology, Sydney*; Liu, Dikai *Univ. of Technology, Sydney*

10:00-11:30 WeBPoT20.6
Tablet-Based Patient Monitoring and Decision Support Systems in Hospital Care
 Baig, Mirza Mansoor *Auckland Univ. of Technology*; GholamHosseini, Hamid* *Auckland Univ. of Technology*; Lindén, Maria *Malardalen Univ.*

10:00-11:30 WeBPoT19.2
A Novel Holding Mechanism for Next Generation Active Wireless Capsule Endoscopy
 Woods, Stephen* *Imperial College London*; Constandinou, Timothy *Imperial College of Science, Technology and Medicine*

10:00-11:30 WeBPoT20.7
Integrated Vital Signs Monitoring System using Ubiquitous Devices: Multiple Physical Signs Detection and Decision Support for Hospitalized Older Adults
 Baig, Mirza Mansoor *Auckland Univ. of Technology*; GholamHosseini, Hamid* *Auckland Univ. of Technology*; Connolly, Martin J. *Univ. of Auckland, North Shore Hospital*

10:00-11:30 WeBPoT19.3
Development of an MRI-Powered Robotic System for Cryoablation
 Ouchi, Ryutarō* *Univ. of Tsukuba*; Saotome, Kousaku *Univ. of Tsukuba*; Matsushita, Akira *Univ. of Tsukuba*; Suzuki, Kenji *Univ. of Tsukuba*

10:00-11:30 WeBPoT20.8
Image based Quantitative Reader for Lateral Flow Immunofluorescence Assay
 Basak Chowdhury, Kaushik* *Indian Institute of Technology Madras*; Joseph, Jayaraj *HTIC, Indian Institute of Technology Madras*; Sivaprakasam, Mohanasankar *Indian Institute of Technology Madras*

- 10:00-11:30 WeBPoT20.9
Comprehensive Framework for Preventive Maintenance Priority of Medical Equipment
Saleh, Neven* *Cairo Univ.*
- 10:00-11:30 WeBPoT20.10
Organizational Principles of Cloud Storage to Support Collaborative Biomedical Research
Kanbar, Lara* *McGill Univ.*; Shalish, Wissam *McGill Univ.*; Robles-Rubio, Carlos Alejandro *McGill Univ.*; Precup, Doina *McGill Univ.*; Brown, Karen *McGill Univ.*; Sant'Anna, Guilherme Mendes *McGill Univ.*; Kearney, Robert Edward *McGill Univ.*
- 10:00-11:30 WeBPoT20.11
A Preliminary Study of the Relation between Back-Pain and Plantar-Pressure Evolution during Pregnancy
Martínez-Martí, Fernando* *Univ. of Granada*; Martínez-García, María Sofia *Univ. of Granada*; Carvajal Rodríguez, Miguel Ángel *Univ. of Granada*; Palma López, Alberto *Univ. of Granada*; Molina-Molina, Alejandro *Univ. of Granada*; Soto Hermoso, Victor M. *Univ. of Granada*; Ocón Hernández, Olga *Univ. of Granada*; Florido Navío, Jesús *Univ. of Granada*
- WeBPoT21: 10:00-11:30 Gold Room
9.12 Physiological Sensors and Monitoring (Poster Session)
- 10:00-11:30 WeBPoT21.1
Anterior Temporal Artery Tap to Identify Systemic Interference using Short-Separation NIRS Measurements: A NIRS/EEG-TDCS Study
Sood, Mehak* *International Institute of Information Technology, Hyderabad*; Jindal, Utkarsh *International Institute of Information Technology, Hyderabad*; Roy Chowdhury, Shubhajit *International Institute of Information Technology, Hyderabad*; Das, Abhijit *Institute of Neurosciences Kolkata*; Kondziella, Daniel *Rigshospitalet, Denmark and Norwegian Univ. of Science and; Dutta, Anirban INRIA*
- 10:00-11:30 WeBPoT21.2
Full-Field Strain Sensor for Guiding Hernia Repairs
Liao, Amy* *UC Berkeley*; Harris, Hobart *UCSF*; Maharbiz, Michel *Univ. of California, Berkeley*
- 10:00-11:30 WeBPoT21.3
Non-Invasive Estimation of Cardiovascular Parameters using Ballistocardiography
van Rooij, Britt* *Eindhoven Univ. of Technology*; Tavakolian, Kouhyar *Assistant Professor*; Arzanpour, Siamak *Simon Fraser Univ.*; Blaber, Andrew Philip *Simon Fraser Univ.*; Leguy, Carole *Dept. of Space Physiology, German Aerospace Center (DLR) Ca*
- 10:00-11:30 WeBPoT21.4
A Smart Phone-Based Robust Correction Algorithm for the Colorimetric Detection of Urinary Tract Infection
Karlsen, Haakon *Buskerud and Vestfold Univ. College*; Dong, Tao* *Dept. of Micro and Nano Systems Technology, Buskerud and Ve*
- 10:00-11:30 WeBPoT21.5
Shear-Mediated Platelet Activation in Patients Implanted with Continuous Flow LVADs: A Preliminary Study Utilizing the Platelet Activity State (PAS) Assay
Valerio, Lorenzo *San Raffaele Hospital*; Consolo, Filippo *Politecnico di Milano*; Bluestein, Danny *Stony Brook Univ.*; Tran, Phat *Univ. of Arizona*; Slepian, Marvin J. *Univ. of Arizona*; Redaelli, Alberto* *Politecnico di Milano*; Pappalardo, Federico *San Raffaele Hospital*
- 10:00-11:30 WeBPoT21.6
Evaluation of the Variation in Sensory Test Results using Semmes-Weinstein Monofilaments
Chikai, Manabu* *National Institute Advanced Industrial Science and Technology*; Ozawa, Emi *Showa-Inan General Hospital*; Takahashi, Noriyo *Tokuyukai Rehabilitation Clinic*; Nunokawa, Kiyohiko *Tokyo International Univ.*; Ino, Shuichi *AIST*
- 10:00-11:30 WeBPoT21.7
A Multimodal Stress Monitoring System with Canonical Correlation Analysis
Ha, Unsoo* *KAIST*; Kim, Changhyeon *KAIST*; Lee, Yongsu *KAIST*; Kim, Hyunki *KAIST*; Roh, Taehwan *KAIST*; Yoo, Hoi-Jun *KAIST*
- 10:00-11:30 WeBPoT21.8
Behavior of Long-Period Measurements using a Small-Sized Photoacoustic Cell for Aqueous Glucose Monitoring
Wadamori, Naoki* *Nagaoka Univ. of Technology*
- 10:00-11:30 WeBPoT21.9
Development of a Diagnostic Dehydration Screening Sensor based on Infrared Spectrometry
Jacobus, Visser *Stellenbosch Univ.*; Scheffer, Cornie *Stellenbosch Univ.*; Dellimore, Kiran* *Philips Research*; Kieser, Eduard *Stellenbosch Univ.*; Smith, Johan *Faculty of Medicine, Stellenbosch Univ.*
- 10:00-11:30 WeBPoT21.10
Head Ballistocardiogram based on Wireless Multi-Location Sensors
Onizuka, Kohei* *Toshiba*; Sodini, Charles G. *Massachusetts Institute of Technology*
- 10:00-11:30 WeBPoT21.11
Kinect v2 based System for Parkinson's Disease Assessment
Rocha, Ana Patricia* *Univ. of Aveiro*; Choupina, Hugo *Univ. of Porto*; Fernandes, José Maria *Univ. of Aveiro*; Rosas, Maria José S. *João Univ. Hospital*; Vaz, Rui S. *João Univ. Hospital*; Cunha, João Paulo Silva *Univ. of Porto and INESC TEC*
- WeBPoT22: 10:00-11:30 Gold Room
9.13 Thermal Therapeutic and Diagnostic Systems (Poster Session)
- 10:00-11:30 WeBPoT22.1
Goniometric Measurement for the Estimation of Anisotropy Coefficient of Human and Animal Pancreas
Saccomandi, Paola *Univ. Campus Bio-Medico of Rome*; Schena, Emiliano* *Univ. of Rome Campus Bio-Medico*; Massaroni, Carlo *Univ. Campus Bio-Medico di Roma*; Di Matteo, Francesco Maria *Univ. Campus Bio-Medico of Rome*; Silvestri, Sergio *Univ. Campus Bio-Medico di Roma*
- 10:00-11:30 WeBPoT22.2
Magnetic Resonance-Compatible Needle-Like Probe based on Bragg Grating Technology for Measuring Temperature during Laser Ablation
Cappelli, Silvia *Unit of Measurements and Biomedical Instrumentation, Center for; Saccomandi, Paola Univ. Campus Bio-Medico of Rome*; Massaroni, Carlo *Univ. Campus Bio-Medico di Roma*; Polimadei, Andrea *ENEA - Centro Ricerche Frascati*; Silvestri, Sergio *Univ. Campus Bio-Medico di Roma*; Caponero, Michele Arturo *ENEA - Centro Ricerche Frascati*; Frauenfelder, Giulia* *Univ. Campus Bio-Medico di Roma*; Schena, Emiliano *Univ. of Rome Campus Bio-Medico*
- 10:00-11:30 WeBPoT22.3
Evaluation of Optoelectronic Plethysmography Accuracy and Precision in Recording Displacements during Quiet Breathing Simulation
Massaroni, Carlo* *Univ. Campus Bio-Medico di Roma*; Schena, Emiliano *Univ. of Rome Campus Bio-Medico*; Saccomandi, Paola *Univ. Campus Bio-Medico of Rome*; Morrone, Michelangelo *Univ. Campus Bio-Medico di Roma*; Sterzi, Silvia *Campus Bio-medico Univ.*; Silvestri, Sergio *Univ. Campus Bio-Medico di Roma*
- 10:00-11:30 WeBPoT22.4
Talaporfin Sodium Binding and Photocytotoxicity of Photosensitization Reaction on Myocardial Cell under Various Albumin Concentrations and Temperature
Ogawa, Emiyu* *Keio Univ. Graduate School*; Takenoya, Hiromi *Keio Univ. Graduate School*; Ito, Arisa *Keio Univ.*; Arai, Tsunenori *Keio Univ.*

- 10:00-11:30 WeBPoT22.5
Drug Delivery of Anti-Restenosis Agent by 40 – 60°C Heating to Porcine Aortic Smooth Muscle Cells in Vitro
 Homma, Rie* *Keio Univ.*; Shinozuka, Machiko *Keio Univ.*; Shimazaki, Natsumi *Keio Univ.*; Arai, Tsunenori *Keio Univ.*
- 10:00-11:30 WeBPoT22.6
An RF Device for Effective Thermal Treatment of Atherosclerosis
 Jiang, Chenwei *Shanghai Jiaotong Univ.*; Zhang, Kangwei *Shanghai Jiao Tong Univ.*; Zhao, Shiqing *Shanghai Jiao Tong Univ.*; Zou, Jincheng *Shanghai Jiaotong Univ.*; Zhang, Aili *Shanghai Jiao Tong Univ.*; Xu, Lisa Xuemin* *Shanghai Jiaotong Univ.*
- 10:00-11:30 WeBPoT22.7
Anthropometric Profile and Diabetic Foot Risk: A Cross-Sectional Study using Thermography
 Neves, Eduardo Borba* *Federal Technological Univ. of Paraná (UTFPR)*; Almeida, António José *Univ. Trás-os-Montes & Alto Douro, Vila Real*; Rosa, Claudio *Research Center in Sports, Health Sciences and Human Dev.*; Vilaça-Alves, José *Research Center in Sports, Health Sciences and Human Dev.*; Reis, Victor Machado *Research Center in Sports, Health Sciences and Human Dev.*; Mendes, Romeu *Research Center in Sports, Health Sciences and Human Dev.*
- 10:00-11:30 WeBPoT22.8
Different Responses of the Skin Temperature to Physical Exercise: Systematic Review
 Neves, Eduardo Borba* *Federal Technological Univ. of Paraná (UTFPR)*; Vilaça-Alves, José *Research Center in Sports, Health Sciences and Human Dev.*; Antunes, Natacha *Research Center in Sports, Health Sciences and Human Dev.*; Felisberto, Ivo Miguel Vieira *Research Center in Sports, Health Sciences and Human Dev.*; Rosa, Claudio *Research Center in Sports, Health Sciences and Human Dev.*; Reis, Victor Machado *Research Center in Sports, Health Sciences and Human Dev.*
- 10:00-11:30 WeBPoT22.9
A Computer-Assisted Robotic Platform for Focused Ultrasound Surgery: Assessment of High Intensity Focused Ultrasound Delivery
 Cafarelli, Andrea* *Scuola Superiore Sant'Anna*; Mura, Marco *Scuola Superiore Sant'Anna*; Diodato, Alessandro *Scuola Superiore Sant'Anna/The BioRobotics Institute*; Schiappacasse, Andrea *Univ. of Genoa / Camelot Biomedical Systems*; Santoro, Matteo *Camelot Biomedical Systems Srl*; Ciuti, Gastone *The BioRobotics Institute, Scuola Superiore Sant'Anna, Pisa, Ita*; Mencicassi, Arianna *Scuola Superiore Sant'Anna*
- 10:00-11:30 WeBPoT22.10
Treatment for Neuropathic Pain and Chronic Inflammation using LASER in Animal Models
 Nohama, Percy* *Univ. Tecnológica Federal do Paraná*; Erthal, Vanessa *Federal Technological Univ. of Paraná*
- WeBPoT23: 10:00-11:30 Gold Room
9.14 Design, Development and Standards of Medical Devices II
 (Poster Session)
- 10:00-11:30 WeBPoT23.1
Fundamental Analysis and Development of the Current and Voltage Control Method by Changing the Driving Frequency for the Transcutaneous Energy Transmission System
 Miura, Hidekazu* *Tohoku Univ.*; Yamada, Akihiro *Tohoku Univ.*; Shiraiishi, Yasuyuki *Tohoku Univ.*; Yambe, Tomoyuki *Tohoku U*
- 10:00-11:30 WeBPoT23.2
Design and Simulation of a 800 Mbit/s Data Link for Magnetic Resonance Imaging Wearables
 Vogt, Christian* *ETH Zürich*; Büthe, Lars *ETH Zürich*; Petti, Luisa *ETH*; Cantarella, Giuseppe *ETH Zürich*; Munzenrieder, Niko *ETH*; Daus, Alwin *ETH Zürich*; Troster, Gerhard *ETH Zurich*
- 10:00-11:30 WeBPoT23.3
Combining Qualitative and Quantitative Methods to Analyze Serious Games Outcomes: A Pilot Study for a New Cognitive Screening Tool
 Vallejo, Vanessa *Univ. of Bern, ARTORG Center for Biomedical Engineering Res*; Mitache, Andrei *Univ. of Bern, ARTORG Center for Biomedical Engineering Res*; Tarnanas, Ioannis *Univ. of Bern, ARTORG Center for Biomedical Engineering Res*; Müri, René *Gerontechnology and Rehabilitation Group, Univ. Hospital of, Mosimann, Urs Peter Gerontechnology and Rehabilitation Group, Univ. Hospital of, Nef, Tobias* Gerontechnology and Rehabilitation, ARTORG Center for Biomedical*
- 10:00-11:30 WeBPoT23.4
Developing Medical Device Software in Compliance with Regulations
 Zema, Maddalena *Politecnico di Torino*; Rosati, Samanta *Politecnico di Torino*; Gioia, Virginia *Politecnico di Torino*; Knafnitz, Marco *Politecnico di Torino*; Balestra, Gabriella* *Politecnico di Torino*
- 10:00-11:30 WeBPoT23.5
Development and Validation of a Bioartificial Liver Device with Fluidized Bed Bioreactors Hosting Alginate-Encapsulated Hepatocyte Spheroids
 Figaro, Sarah* *Univ. de Technologie de Compiègne, Gambro industries*; Pereira, Ulysse *Univ. de Technologie de Compiègne*; Rada, Hiram *Gambro Industries*; Semenzato, Nicolas *Gambro Industries*; Pouchoulin, Dominique *Gambro Industries*; Legallais, Cecile *Univ. of Technology of Compiègne - France*
- 10:00-11:30 WeBPoT23.6
A 128-Ch Δ - Σ ADC based Mixed Signal IC for Full Digital Beamforming Wireless Handheld Ultrasound Imaging System
 Chirala, Mohan* *Samsung Research America*; Huynh, Phuong *Samsung Research America*; Ryu, Jaeyoung *Samsung Research Korea*; Kim, Young-Hwan *Samsung Research Korea*
- 10:00-11:30 WeBPoT23.7
Electric Fence Standards Comport with Human Data and AC Limits
 Kroll, Mark* *Univ. of Minnesota*; Perkins, Pete *Safety Engineering*; Panescu, Dorin *Advanced Cardiac Therapeutics*
- WeBPoT24: 10:00-11:30 Gold Room
9.15 Drug Delivery and Other Therapeutic Systems
 (Poster Session)
- 10:00-11:30 WeBPoT24.1
In-Vitro Testing of RF-Enabled Low Force Mechanical Thrombectomy for Ischemic Stroke
 Chon, Chi Hang* *The Hong Kong Univ. of Science and Technology*; Qin, Zhen *The Hong Kong Univ. of Science and Technology*; Lam, Alexander K.N. *Hong Kong Univ. of Science and Technology*; Kwok, John C.K. *Hong Kong Univ. of Science and Technology*; Yuen, Matthew M.F. *Hong Kong Univ. of Science and Technology*; Lam, David C.C. *Hong Kong Univ. of Science and Technology*
- 10:00-11:30 WeBPoT24.2
Feasibility Examination of Isolated Zonal Thrombolysis using Raman Spectroscopy
 Qin, Zhen* *The Hong Kong Univ. of Science and Technology*; Chon, Chi Hang *The Hong Kong Univ. of Science and Technology*; Lam, Alexander K.N. *Hong Kong Univ. of Science and Technology*; Kwok, John C.K. *Hong Kong Univ. of Science and Technology*; Yuen, Matthew M.F. *Hong Kong Univ. of Science and Technology*; Lam, David C.C. *Hong Kong Univ. of Science and Technology*
- 10:00-11:30 WeBPoT24.3
Creating Eye Closure in Patients with Facial Nerve Paralysis using an Implantable Solenoid Actuator
 Hasmat, Shaheen* *Univ. of New South Wales*; Lovell, Nigel H. *Univ. of New South Wales*; Eviston, Timothy *Univ. of New South Wales*; Ekmejian, Rafael *Univ. of New South Wales*; Suaning, Gregg *The Univ. of New South Wales*; Clark, Jonathan *Univ. of Sydney*

- 10:00-11:30 WeBPoT24.4
A Smart Pill for Drug Delivery with Sensing Capabilities
 Goffredo, Rosa* *Univ. Campus Bio-Medico di Roma*; Accoto, Dino *Campus Bio-Medico Univ.*; Santonico, Marco *Electronics for sensorial systems Lab, Univ. Campus Bio-Med*; Pennazza, Giorgio *Electronics for sensorial systems Lab, Univ. Campus Bio-Med*; Guglielmelli, Eugenio *Campus Bio-Medico Univ.*
- 10:00-11:30 WeBPoT24.5
Fabrication of SU-8 based Capacitive Micromachined Ultrasonic Transducer for Low Frequency Therapeutic Applications
 Joseph, Jose* *Indian Institute of Technology, Hyderabad*; Singh, Shiv Govind *IIT Hyderabad*; Vanjari, Siva Rama Krishna *IIT Hyderabad*
- 10:00-11:30 WeBPoT24.6
Active Induction of in Vivo Microbubbles by Acoustic Radiation Force at the Bifurcation of Blood Vessel and Its Evaluation
 Masuda, Kohji* *Tokyo Univ. A&T*; Koido, Jun *Tokyo Univ. of Agriculture and Technology*; Miyazawa, Shinya *Tokyo Univ. of Agri. & Tech.*; Wada, Hikaru *Tokyo Univ. of Agri. & Tech.*; Hosaka, Naoto *Tokyo Univ. of Agriculture and Technology*; Mochizuki, Takashi *Tokyo Univ. of Agriculture and Technology*
- WeBPoT25: 10:00-11:30 Gold Room
10.11 Health Information Systems (Poster Session)
- 10:00-11:30 WeBPoT25.1
A Semantically-Aided Architecture for a Web-Based Monitoring System for Carotid Atherosclerosis
 Kolias, Vassileios* *National Technical Univ. of Athens*; Stamou, Giorgos *National Technical Univ. of Athens*; Golemati, Spyretta *National Kapodistrian Univ. of Athens*; Stoitsis, John *Institute of Communication*; Gekkas, Christos *National Kapodistrian Univ. of Athens*; Liapis, Christos *National Kapodistrian Univ. of Athens*; Nikita, Konstantina *National Technical Univ. of Athens*
- 10:00-11:30 WeBPoT25.2
A New Femtocaching File Placement Algorithm for Telemedicine
 Leung, Warren Pak Tao* *King's College London*; Shikh-Bahaei, Mohammad *King's College London*
- 10:00-11:30 WeBPoT25.3
A Machine Learning Methodology for Medical Imaging Anonymization
 Monteiro, Eriksson *Univ. of Aveiro*; Costa, Carlos *DETI/IEETA, Univ. of Aveiro*; Oliveira, José Luis* *DETI/IEETA - Univ. of Aveiro*
- 10:00-11:30 WeBPoT25.4
CPDI: An Index for Measuring Deviations in Clinical Pathways
 Zema, Maddalena *Politecnico di Torino*; Rosati, Samanta *Politecnico di Torino*; Duran Carvajal, Jonathan Eliecer *Politecnico di Torino*; Balestra, Gabriella* *Politecnico di Torino*
- 10:00-11:30 WeBPoT25.5
Technical Solutions for Mitigating Security Threats Caused by Health Professionals in Clinical Settings
 Fernandez Aleman, Jose Luis* *Univ. of Murcia*; Sánchez García, Ana Belén *Hospital Univ. Reina Sofia de Murcia*; García-Mateos, Ginés *Univ. of Murcia*; Toval, Ambrosio *Univ. of Murcia*
- 10:00-11:30 WeBPoT25.6
Real-Time Medical Collaboration Services Over the Web
 Andrikos, Christos *National Technical Univ. of Athens*; Rassias, Georgios *National Technical Univ. of Athens*; Tsanakas, Panayiotis *National Technical Univ. of Athens*; Maglogiannis, Ilias* *Univ. of Piraeus*
- 10:00-11:30 WeBPoT25.7
Digital Patient: Personalized and Translational Data Management through the MyHealthAvatar EU Project
 Kondylakis, Haridimos* *Foundation for Research and Technology - Hellas*; Spanakis, Manolis *Foundation for Research and Technology - Hellas (FORTH)*; Sfakianakis, Stelios *Foundation for Research and Technology Hellas*; Sakkalis, Vangelis *ICS-FORTH*; Tsiknakis, Manolis *ICS-FORTH*; Marias, Kostas *Foundation for Res. & Tech. Hellas*; Xia, Zhao *Dept. of Computer Science and Technology, Univ. of Bed*; Yu, Hong Qing *Dept. of Computer Science and Technology, Univ. of Bed*; Dong, Feng *Dept. of Computer Science and Technology, Univ. of Bed*
- 10:00-11:30 WeBPoT25.8
Electronic Health Record Application Support Service Enablers
 Neofytou, Marios *Univ. of Cyprus*; Neokleous, Kleanthis *Univ. of Cyprus*; Aristodimou, Aristos *Univ. of Cyprus*; Constantinou, Ioannis *Univ. of Cyprus*; C. Antoniou, Zinonas *Univ. of Cyprus*; Schiza, Eirini *Univ. of Cyprus*; Pattichis, Constantinos* *Univ. of Cyprus*; Schizas, Christos *Univ. of Cyprus*
- 10:00-11:30 WeBPoT25.9
A Trust Assessment Mechanism for Ubiquitous Healthcare Environment Employing Cloud Theory
 Athanasiou, Georgia* *Univ. of Patras*; Fengou, Maria-Anna *Univ. of Patras*; Beis, Antonios *Dromokaition Mental Hospital*; Lymberopoulos, Dimitrios *Univ. of Patras*
- 10:00-11:30 WeBPoT25.10
Steganography in Arrhythmic Electrocardiogram Signal
 S, Edward Jero* *IIT Madras*; Ramu, Palaniappan *Indian Institute of Technology Madras*; Ramakrishnan, Swaminathan *IIT Madras, India*
- 10:00-11:30 WeBPoT25.11
Development of Health Diagnostics based on Personalized Medical Models
 Hudson, Donna L* *Univ. of California, San Francisco*; Cohen, Maurice *Univ. of California San Francisco*; Hudson, Samuel E *California State Univ. Bakersfield*
- WeCT1: 11:30-13:00 Brown 1
8.2 Motor Control Strategies in Complex Tasks (Invited Session)
Chair: Zenzeri, Jacopo *Istituto Italiano di Tecnologia*
Co-Chair: Nomura, Taishin *Osaka University*
- 11:30-11:45 WeCT1.1
Dealing with Instability in Bimanual and Collaborative Tasks
 De Santis, Dalia* *Istituto Italiano di Tecnologia*; Avila Mireles, Edwin Johnatan *Istituto Italiano di Tecnologia*; Squeri, Valentina *Istituto Italiano di Tecnologia*; Morasso, Pietro *Italian Institute of Technology*; Zenzeri, Jacopo *Istituto Italiano di Tecnologia*
- 11:45-12:00 WeCT1.2
Impedance Control: Learning Stability in Human Sensorimotor Control
 Franklin, David W.* *Univ. of Cambridge*
- 12:00-12:15 WeCT1.3
Distribution Learning within Boundaries
 shah, Amit *Univ. of Illinois at Chicago*; Patton, James (Jim)* *Rehab Institute of Chicago & U. of Illinois at Chicago*
- 12:15-12:30 WeCT1.4
Non-Actively Controlled Double-Inverted-Pendulum-Like Dynamics Can Minimize Center of Mass Acceleration during Human Quiet Standing
 Suzuki, Yasuyuki* *Osaka Univ.*; Morimoto, Hiroki *Osaka Univ.*; Kiyono, Ken *Osaka Univ.*; Morasso, Pietro *Italian Institute of Technology*; Nomura, Taishin *Osaka Univ.*
- 12:30-12:45 WeCT1.5
Intermittent Control of Unstable Multivariate Systems
 Loram, Ian David* *Manchester Metropolitan Univ.*; Gawthrop, Peter *The Univ. of Melbourne*; Gollee, Henrik *Univ. of Glasgow*

12:45-13:00 WeCT1.6
Structure of the Set of Feasible Neural Commands for Complex Motor Tasks
 Valero-Cuevas, Francisco* *Univ. of Southern California*;
 Cohn, Brian *USC*; Szedlak, May *ETH*; Gärtner, Bernd
gaertner@inf.ethz.ch; Fukuda, Komei *ETH*

12:00-12:15 WeCT3.3
Hybrid Gaze/EEG Brain Computer Interface for Robot Arm Control on a Pick and Place Task
 Wang, Haofei *Hong Kong Univ. of Science and Technology*;
 Dong, Xujiang *HKUST*; Chen, Zhaokang *HKUST*; Shi, Bertram
 E* *Hong Kong Univ. of Science and Technology*

WeCT2: 11:30-13:00 Brown 2
4.2 Multiscale Modeling (Oral Session)
Chair: Aletti, Federico *University of California San Diego*

12:15-12:30 WeCT3.4
Towards Perception Awareness: Perceptual Event Detection for Brain Computer Interfaces
 Nejati, Hossein* *sutd.edu.sg*; Tsourides, Kleovoulos (Leo) *mit.edu*;
 Pomponiu, Victor *Singapore Univ. of Technology and Design*;
 Ehrenberg, Evan C. *mit.edu*; Cheung, Ngai-Man *Singapore Univ. of Technology and Design*; Sinha, Pawan *mit.edu*

11:30-11:45 WeCT2.1
A Modeling Approach to Study the Normal Mammary Gland Growth Process
 Butner, Joseph *Univ. of New Mexico*; Cristini, Vittorio *Univ. of New Mexico*; Wang, Zhihui* *Univ. of New Mexico*

12:30-12:45 WeCT3.5
Neural Indicators of the Depth of Cognitive Processing for User-Adaptive Neurotechnological Applications
 Nicolae, Irina-Emilia* *Electronics, Telecommunication and Information Tech. Faculty*; Acqualagna, Laura *Berlin Institute of Tech.*; Blankertz, Benjamin *Technische Univ. Berlin*

11:45-12:00 WeCT2.2
Determining the Efficient Inter-Electrode Distance for High-Resolution Mapping using a Mathematical Model of Human Gastric Dysrhythmias
 Putney, Joy *Dept. of Physics-Engineering, Washington and Lee Univ.*; O'Grady, Gregory *Univ. of Auckland*; Angeli, Timothy
 Robert *Auckland Bioengineering Institute, Univ. of Auckland*;
 Paskaranandavadivel, Niranchan *The Univ. of Auckland*;
 Cheng, Leo K *The Univ. of Auckland*; Erickson, Jon *Washington and Lee Univ.*; Du, Peng* *The Univ. of Auckland*

12:45-13:00 WeCT3.6
Goal-Directed or Aimless? EEG Differences during the Preparation of a Reach-and-Touch Task
 Pereira, Joana *Graz Univ. of Tech.*; Ofner, Patrick *Graz Univ. of Tech.*; Müller-Putz, Gernot* *Graz Univ. of Tech.*

12:00-12:15 WeCT2.3
A Comparison of Solver Performance for Complex Gastric Electrophysiology Models
 Sathar, Shameer* *Univ. of Auckland*; Cheng, Leo K *The Univ. of Auckland*; Trew, Mark L. *Univ. of Auckland*

WeCT4: 11:30-13:00 Amber 1
1.5 Nonstationary Processing of Biomedical Signals (Oral Session)
Chair: Bianchi, Anna Maria *Politecnico di Milano*
Co-Chair: Van Huffel, Sabine *Katholieke Universiteit Leuven*

12:15-12:30 WeCT2.4
Ultrasound Propagation in Cortical Bone: Axial Transmission and Backscattering Simulations
 Potsika, Vassiliki *Unit of Medical Technology and Intelligent Information Systems*; Grivas, Konstantinos *Dept. of Mechanical Engineering and Aeronautics, Univ.*; Gortsas, Theodoros *Dept. of Mechanical Engineering and Aeronautics, Univ.*; Protopappas, Vasiliios C. *Univ. of Patras*; Polyzos, Demosthenes *Univ. of Patras*; Raum, Kay *Julius Wolff Institute, Berlin-Brandenburg School for Regenerat*; Fotiadis, Dimitrios I.* *Univ. of Ioannina*

11:30-11:45 WeCT4.1
Data-Driven Metric Representing the Maturation of Preterm EEG
 Koolen, Ninah* *Dept. of Electrical Engineering, Univ. of Leuven*;
 Dereymaeker, Anneleen *Dept. of Development and Regeneration, Univ. of Leuven*; Räsänen, Okko *Dept. of Signal Processing and Acoustics, Aalto Univ.*; Jansen, Katrien *Dept. of Pediatrics, Univ. Hospital Gasthuisberg, Leuven*; Vervisch, Jan *Dept. of Development and Regeneration, Univ. of Leuven*;
 Matic, Vladimir *Katholieke Univ. Leuven and IBBT-K.U. Leuven FutureHealth*; De Vos, Maarten *Univ. of Oxford*; Naulaers, Gunnar *Univ. Hospitals Leuven*; Van Huffel, Sabine *Katholieke Univ. Leuven*; Vanhatalo, Sampsa *Helsinki Univ. Central Hospital and Univ. of Helsinki*,

12:30-12:45 WeCT2.5
Computational Modeling of Ultrasonic Backscattering to Evaluate Fracture Healing
 Potsika, Vassiliki *Unit of Medical Technology and Intelligent Information Systems*; Gortsas, Theodoros *Dept. of Mechanical Engineering and Aeronautics, Univ.*; Protopappas, Vasiliios C. *Univ. of Patras*; Polyzos, Demosthenes *Univ. of Patras*; Fotiadis, Dimitrios I.* *Univ. of Ioannina*

11:45-12:00 WeCT4.2
10-regularized Time-varying Sparse Inverse Covariance Estimation for Tracking Dynamic fMRI Brain Networks
 Fu, Zening *Univ. of Hong Kong*; Han, Sheng *The Univ. of Hong Kong*; Tan, Ao* *The Univ. of Hong Kong*; Tu, Yiheng *The Univ. of Hong Kong*; Zhang, Zhiguo *Nanyang Technological Univ.*

12:45-13:00 WeCT2.6
Physiodel – An Integrative Physiology in Modelica
 Matejak, Marek *Charles Univ.*; Kofránek, Jiří* *Creative Connections s.r.o.*

12:00-12:15 WeCT4.3
Estimation of Heart Rate from Photoplethysmography during Physical Exercises using Wiener Filtering and Phase Vocoder
 Temko, Andriy* *Univ. College Cork*

WeCT3: 11:30-13:00 Brown 3
6.4 Brain-Computer/Machine Interface II (Oral Session)
Chair: Müller-Putz, Gernot *Graz University of Technology*
Co-Chair: Millán, José del R. *Ecole Polytech. Federale de Lausanne*

12:15-12:30 WeCT4.4
Robust Monitoring of Hypovolemia in Intensive Care Patients using Photoplethysmogram Signals
 Roederer, Alexander* *Univ. of Pennsylvania*; Weimer, James *Univ. of Pennsylvania*; DiMartino, Joseph *Univ. of Pennsylvania Health System*; Gutsche, Jacob *Univ. of Pennsylvania Health System*; Lee, Insup *Univ. of Pennsylvania*

11:30-11:45 WeCT3.1
Movement Target Decoding from EEG and the Corresponding Discriminative Sources: A Preliminary Study
 Ofner, Patrick* *Graz Univ. of Technology*; Müller-Putz, Gernot *Graz Univ. of Technology*

12:30-12:45 WeCT4.5
Attenuation of the Influence of Cardiolocomotor Coupling in Heart Rate Variability Interpretation during Exercise Test
 Hernando, Alberto* *BSICoS Group, CIBER-BBN*; Hernando, David *Univ. of Zaragoza (Spain)*; Garatachea, Nuria *Faculty of Health and Sport Science, Univ. of Zaragoza, Hues*; Bailon, Raquel *Univ. of Zaragoza*; Casajús, José Antonio *GENUD Research Group, Faculty of Health and Sport Sciences, Univ*

11:45-12:00 WeCT3.2
The Detection and Classification of the Mental State Elicited by Humor from EEG Patterns
 Ramaraju, Sriharsha* *Univ. of South Wales*; Izzidien, Ahmed *Univ. of Southwales*; Roula, Mohammed Ali *Univ. of South Wales*

12:45-13:00	WeCT4.6	EEG-Based Index for Engagement Level Monitoring during Sustained Attention Coelli, Stefania* <i>Dept. of Electronics, Information and Bioengineering, Polit</i> ; Sclocco, Roberta <i>Politecnico di Milano</i> ; Barbieri, Riccardo <i>MGH-Harvard Medical School-MIT</i> ; Reni, Gianluigi <i>IRCCS</i> ; Zucca, Claudio <i>IRCCS "E. Medea"</i> ; Bianchi, Anna Maria <i>Politecnico di Milano</i>	12:00-12:15	WeCT6.3	Co-Located Haptic Interaction for Virtual USG Exploration Ruffaldi, Emanuele <i>Scuola Superiore S.Anna, Pisa, Italy</i> ; Brizzi, Filippo <i>Scuola Superiore Sant'Anna</i> ; Filippeschi, Alessandro* <i>Scuola Superiore S.Anna, Pisa, Italy</i> ; Avizzano, Carlo Alberto <i>Scuola Superiore Sant'Anna</i>
WeCT5: 11:30-13:00	Amber 2	1.6 Signal Processing in Physiological Systems II: Neural Signals (Oral Session) Chair: Lipping, Tarmo <i>Tampere University of Technology</i> Co-Chair: Sparacino, Giovanni <i>University of Padova</i>	12:15-12:30	WeCT6.4	Compressed Sensing for High Frame Rate, High Resolution and High Contrast Ultrasound Imaging Liu, Jing <i>Tsinghua Univ.</i> ; He, Qiong <i>Tsinghua Univ.</i> ; Luo, Jianwen* <i>Tsinghua Univ.</i>
11:30-11:45	WeCT5.1	A Feature Design Framework for Hardware Efficient Neural Spike Sorting Sokolic, Jure* <i>Univ. College London</i> ; Zamani, Majid <i>Univ. College London</i> ; Demosthenous, Andreas <i>Univ. College London</i> ; Rodrigues, Miguel R. D. <i>Univ. College London</i>	12:30-12:45	WeCT6.5	2D Simulations based on General Time-Dependent Reciprocal Relation for LFEIT Karadas, Mursel* <i>Middle East Technical Univ.</i> ; Gençer, Nevzat <i>Middle East Technical Univ.</i>
11:45-12:00	WeCT5.2	Automated Analysis of Local Field Potentials Evoked by Mechanical Whisker Stimulation in Rat Barrel Cortex Rubega, Maria* <i>Univ. of Padova</i> ; Cecchetto, Claudia <i>Univ. of Padova</i> ; Vassanelli, Stefano <i>NeuroChip Laboratory, Univ. of Padova</i> ; Sparacino, Giovanni <i>Univ. of Padova</i>	12:45-13:00	WeCT6.6	Evaluation of a Frequency-Domain Ultrasonic Imaging Attenuation Compensation Technique Rouyer, Julien <i>Pontificia Univ. Católica del Perú</i> ; Varray, François <i>Creatis</i> ; Pozo Fortunio, Edmundo <i>Pontificia Univ. Católica del Perú</i> ; Basset, Olivier <i>Univ. Lyon1, INSA-Lyon, CNRS UMR 5220, INSERM U630.</i> ; Cachard, Christian <i>Univ. Lyon 1</i> ; Lavarello, Roberto* <i>Pontificia Univ. Católica del Perú</i>
12:00-12:15	WeCT5.3	Supervised Segmentation of Microelectrode Recording Artifacts using Power Spectral Density Bakstein, Eduard <i>Czech Technical Univ. in Prague</i> ; Schneider, Jakub* <i>Czech Technical Univ. in Prague</i> ; Sieger, Tomas <i>Czech Technical Univ. in Prague</i> ; Novak, Daniel <i>Czech Technical Univ. in Prague</i> ; Wild, Jiri <i>Czech Technical Univ. in Prague</i> ; Jech, Robert <i>First Faculty of Medicine, Charles Univ.</i>	WeCT7: 11:30-13:00	Amber 4	2.5 MR Novel Hardware and Methods (Oral Session) Co-Chair: Bonmassar, Giorgio A. A. <i>Martinos Ctr. for Biomedical Imaging</i>
12:15-12:30	WeCT5.4	Patient Specific Parkinson's Disease Detection for Adaptive Deep Brain Stimulation Mohammed, Ameer* <i>Univ. College London</i> ; Zamani, Majid <i>Univ. College London</i> ; Bayford, Richard H. <i>Middlesex Univ.</i> ; Demosthenous, Andreas <i>Univ. College London</i>	11:30-11:45	WeCT7.1	A Frequency Translation Approach for Multichannel 13C Spectroscopy Ogier, Stephen <i>Texas A&M Univ.</i> ; Wright, Steven M.* <i>Texas A&M Univ.</i>
12:30-12:45	WeCT5.5	Prediction of Outcome in Traumatic Brain Injury Patients using Long-Term qEEG Features Mikola, Annika <i>North Estonia Medical Centre</i> ; Ratsep, Indrek <i>Tallinn Univ. of Technology</i> ; Särkelä, Mika <i>GE</i> ; Lipping, Tarmo* <i>Tampere Univ. of Technology</i>	11:45-12:00	WeCT7.2	High-Resolution Dynamic Speech Imaging with Deformation Estimation Fu, Maojing <i>Univ. of Illinois at Urbana-Champaign</i> ; Barlaz, Marissa <i>Univ. of Illinois at Urbana-Champaign</i> ; Shosted, Ryan <i>Univ. of Illinois at Urbana-Champaign</i> ; Liang, Zhi-Pei <i>Univ. of Illinois at Urbana-Champaign</i> ; Sutton, Bradley P.* <i>Univ. of Illinois at Urbana-Champaign</i>
12:45-13:00	WeCT5.6	Relationship between Inter-Stimulus-Intervals and Intervals of Autonomous Activities in a Neuronal Network Ito, Hidekatsu <i>Kwansei Gakuin Univ.</i> ; Minoshima, Wataru <i>Kwansei Gakuin Univ.</i> ; Kudoh, Suguru* <i>Kwansei Gakuin Univ.</i>	12:00-12:15	WeCT7.3	Even-Odd Mode Excitation for Stability Investigation of Cartesian Feedback Amplifier used in Parallel Transmit Array Shooshtary, Samaneh* <i>Institute of Microwave and RF Technology of Duisburg-Essen Univ.</i> ; Solbach, Klaus <i>Institute of Microwave and RF Technology of Duisburg-Essen Univ.</i>
WeCT6: 11:30-13:00	Amber 3	2.4 Novel Ultrasound Imaging Method II (Oral Session) Chair: Troccaz, Jocelyne <i>Univ. Joseph Fourier - CNRS UMR 5525</i>	12:15-12:30	WeCT7.4	MRI of Biopsy Needles by Susceptibility Mapping based on Wiener Filter and L1-Regularization Yang, Tao <i>Texas A&M Univ.</i> ; Ji, Jim Xiuquan* <i>Texas A&M Univ.</i>
11:30-11:45	WeCT6.1	3D Ultrasound Imaging Method to Assess the True Spinal Deformity Vo, Quang N.* <i>Univ. of Alberta</i> ; Lou, Edmond H. <i>Univ. of Alberta</i> ; Le, Lawrence H <i>Univ. of Alberta</i>	12:30-12:45	WeCT7.5	Resistive Tapered Striplines Design for MR Conditional Implants Bonmassar, Giorgio* <i>A. A. Martinos Ctr. for Biomedical Imaging</i>
11:45-12:00	WeCT6.2	Using Rotation for Steerable Needle Detection in 3D Color-Doppler Ultrasound Images Mignon, Paul* <i>Univ. Joseph Fourier</i> ; Poignet, Philippe <i>LIRMM, UMR CNRS 5506, Univ. of Montpellier II</i> ; Troccaz, Jocelyne <i>Univ. Joseph Fourier - CNRS UMR 5525</i>	12:45-13:00	WeCT7.6	Magnetic Resonance Microlmaging of a Swine Infarcted Heart: Performing Cardiac Virtual Histologies Ortiz, Rafael <i>Univ. Politècnica de València</i> ; Morales, José Manuel <i>Univ. de València</i> ; Ruiz-España, Silvia <i>Univ. Politècnica de València</i> ; Bodí, Vicente <i>Univ. de València</i> ; Monleon, Daniel <i>Hospital Clinico Univ. de Valencia</i> ; Moratal, David* <i>Univ. Politècnica de València</i>

WeCT8: 11:30-13:00 10.3 Emerging IT for Efficient/Low-Cost Healthcare Delivery (Oral Session) Chair: Korhonen, Ilkka <i>Tampere University of Technology</i> Co-Chair: Sacchi, Lucia <i>University of Pavia</i>	Amber 5	12:15-12:30 Modeling Perceived Stress via HRV and Accelerometer Sensor Streams Wu, Min* <i>Institute for Infocomm Research, A*STAR, Singapore</i> ; Cao, Hong <i>McLaren Applied Technologies</i> ; Nguyen, Hai-Long <i>I2R, A*Star, Singapore</i> ; Surmacz, Karl <i>McLaren Applied Technologies</i> ; Hargrove, Caroline <i>McLaren Applied Technologies</i>	WeCT9.4
11:30-11:45 Model based Methods for the Analysis of Non-Stationary Effects of Telemonitoring as an Intervention for the Management of Chronic Conditions at Home Celler, Branko George* <i>Univ. of New South Wales</i> ; Sparks, Ross <i>CSIRO - Digital Productivity Flagship</i>	WeCT8.1	12:30-12:45 A Smart Spirometry Device for Asthma Diagnosis Kassem, Abdallah* <i>Notre Dame Univ.-Louaize</i> ; Hamad, Mustapha <i>Notre Dame Univ.-Louaize</i> ; El-Moucaray, Chady <i>Notre Dame Univ.-Louaize</i>	WeCT9.5
11:45-12:00 Data Correction for Seven Activity Trackers based on Regression Models Andalibi, Vafa <i>Tampere Univ. of Technology</i> ; Honko, Harri* <i>Tampere Univ. of Technology</i> ; Christophe, Francois <i>Tampere Univ. of Technology</i> ; Viik, Jari <i>Tampere Univ. of Technology</i>	WeCT8.2	12:45-13:00 Quantifiable Fitness Tracking using Wearable Devices Bajpai, Anurag <i>Samsung R&D Institute Bangalore, India</i> ; Jilla, Vivek <i>Samsung Research India Bangalore</i> ; Tiwari, Vijay Narayan <i>Samsung Research India, Bangalore</i> ; Venkatesan, Shankar <i>Samsung R&D Institute Bangalore, India</i> ; Narayanan, Rangavittal* <i>Samsung India Software Operations Pvt. Ltd.</i>	WeCT9.6
12:00-12:15 A Cloud-Based System for Automatic Glaucoma Screening Yin, Fengshou* <i>Institute for Infocomm Research</i> ; Wong, Damon <i>Institute for Infocomm Research</i> ; Quan, Ying <i>Institute for Infocomm Research</i> ; Yow, Ai Ping <i>Institute for Infocomm Research</i> ; Tan, Ngan Meng <i>A*STAR, Institute for Infocomm Research</i> ; Gopalakrishnan, Kavitha <i>Institute For Infocomm Research</i> ; Lee, Beng Hai <i>Institute for Infocomm Research</i> ; Xu, Yanwu <i>Institute for Infocomm Research</i> ; Zhang, Zhuo <i>A*STAR</i> ; Cheng, Jun <i>Institute for Infocomm Research, AStar</i> ; Liu, Jiang <i>Institute for Infocomm Research, A STAR</i>	WeCT8.3	WeCT10: 11:30-13:00 6.5 Sensory Neuroprostheses I (Oral Session) Chair: Suaning, Gregg <i>The University of New South Wales</i> Co-Chair: Babiloni, Fabio <i>University of Rome</i>	Amber 7
12:15-12:30 Visualization-Based Medical Expenditure Analysis Support System Toyoda, Shuichi* <i>Jobu Univ.</i>	WeCT8.4	11:30-11:45 Assistive Peripheral Prosthetic Vision Aids Perception and Mobility in Outdoor Environments: A Virtual-Reality Simulation Study Zapf, Marc Patrick Hans* <i>Univ. of New South Wales</i> ; Boon, Mei-Ying <i>School of Optometry and Vision Science, UNSW Australia</i> ; Lovell, Nigel H. <i>Univ. of New South Wales</i> ; Suaning, Gregg <i>The Univ. of New South Wales</i>	WeCT10.1
12:30-12:45 Septic Safe Interactions with Smart Glasses in Health Care Czuszynski, Krzysztof* <i>Gdansk Univ. of Technology</i> ; Ruminski, Jacek <i>Gdansk Univ. of Technology</i> ; Kocejko, Tomasz <i>Gdansk Univ. of Technology</i> ; Wtorek, Jerzy <i>Gdansk Univ. of Technology</i>	WeCT8.5	11:45-12:00 Cortical Neural Excitations in Rats in Vivo with using a Prototype of a Wireless Multi-Channel Microstimulation System Hayashida, Yuki* <i>Osaka Univ.</i> ; Umehira, Yuuichi <i>Grad. Eng., Osaka Univ.</i> ; Takatani, Kouki <i>Grad. Eng., Osaka Univ.</i> ; Futami, Shigetoshi <i>Grad. Eng., Osaka Univ.</i> ; Kameda, Seiji <i>Osaka Univ.</i> ; Kamata, Takatsugu <i>Osaka Univ.</i> ; Khan, Arif Ullah <i>Osaka Univ.</i> ; Takeuchi, Yoshinori <i>Osaka Univ.</i> ; Imai, Masaharu <i>Osaka Univ.</i> ; Yagi, Tetsuya <i>Osaka Univ., Gard. Eng</i>	WeCT10.2
12:45-13:00 Establishing an Indigenous Tele-Eye Care Service Kanagasingam, Yogi <i>The Australian eHealth Research Centre, Perth, CSIRO.</i> ; Boyle, Justin* <i>CSIRO ICT Centre</i> ; Vignarajan, Janardhan <i>CSIRO</i> ; Xiao, Di <i>Commonwealth Scientific and Industrial Research Organization</i> ; Zhang, Ming <i>CSIRO</i>	WeCT8.6	12:00-12:15 Impact of Monaural Frequency Compression on Binaural Fusion at the Brainstem Level Klaue, Isabelle <i>Systems Neuroscience & NeuroTech. Unit</i> ; Kohl, Manuel <i>Saarland Univ. of Applied Sciences</i> ; Hannemann, Ronny <i>Siemens Audiologische Technik</i> ; Kornagel, Ulrich <i>Sivantos GmbH</i> ; Strauss, Daniel J.* <i>Saarland Univ., Medical Faculty</i> ; Corona-Strauss, Farah I. <i>Saarland Univ. Hospital</i>	WeCT10.3
WeCT9: 11:30-13:00 10.4 Personalised Health (Oral Session) Chair: Doug, Fridsma <i>AMIA - Informatics Prof.. Leading the Way</i> Co-Chair: Wang, May D. <i>Georgia Tech and Emory University</i>	Amber 6	12:15-12:30 Resistivity Profiles of Wild-Type, α-Syn, and β-Syn Mouse Retina Wang, Boshuo <i>Univ. of Southern California</i> ; Weiland, James* <i>Univ. of Southern California</i>	WeCT10.4
11:30-11:45 Investigating Correlation between Verbal Interactions and Perceived Stress Osmani, Venet* <i>CREATE-NET</i> ; Ferdous, Raihana <i>Create-Net</i> ; Mayora, Oscar <i>CREATE-NET</i> ; Beltrán, Jessica <i>CICESE</i>	WeCT9.1	12:30-12:45 Mental Workload Estimations in Unilateral Deafened Children Cartocci, Giulia <i>Univ. of Rome Sapienza</i> ; Maglione, Anton Giulio <i>Univ. of Rome Sapienza</i> ; Scorpecci, Alessandro <i>Ospedale Pediatrico "Bambino Gesù" - IRCCS</i> ; Marsella, Pasquale <i>IRCCS Ospedal Bambin Gesù</i> ; Malerba, Paolo <i>Cochlear</i> ; Babiloni, Fabio* <i>Univ. of Rome</i> ; Di Flumeri, Gianluca <i>Univ. of Rome Sapienza</i> ; Borghini, Gianluca <i>Univ. of Rome Sapienza</i> ; Aricò, Pietro <i>Fondazione Santa Lucia</i>	WeCT10.5
11:45-12:00 Time-Series Modeling of Long-Term Weight Self-Monitoring Data Helander, Elina* <i>Tampere Univ. of Technology</i> ; Pavel, Misha <i>Northeastern Univ.</i> ; Jimison, Holly <i>Northeastern Univ.</i> ; Korhonen, Ilkka <i>Tampere Univ. of Technology</i>	WeCT9.2	12:45-13:00 Motion Sensitivity Analysis of Retinal Ganglion Cells in Mouse Retina using Natural Visual Stimuli Wadehn, Federico* <i>ETH Zurich</i> ; Schieban, Konrad <i>ETH Zurich</i> ; Nikolic, Konstantin <i>Imperial College London</i>	WeCT10.6
12:00-12:15 Annotation and Prediction of Stress and Workload from Physiological and Inertial Signals Ghosh, Arindam* <i>Univ. of Trento</i> ; Danieli, Morena <i>Univ. of Trento</i> ; Riccardi, Giuseppe <i>Univ. of Trento</i>	WeCT9.3		

WeCT11: 11:30-13:00 Amber 8
6.6 Motor Neuroprostheses I (Oral Session)
Chair: Englehart, Kevin *University of New Brunswick*

11:30-11:45 WeCT11.1
Classification of Hand and Wrist Tasks of Unknown Force Levels using Muscle Synergies
Atoufi, Bahareh *Univ. of New Brunswick*; Kamavuako, Ernest Nlandu *Aalborg Univ.*; Hudgins, Bernard *Univ. of New Brunswick*; Englehart, Kevin* *Univ. of New Brunswick*

11:45-12:00 WeCT11.2
Optimal Calibration of the Learning Rate in Closed-Loop Adaptive Brain-Machine Interfaces
Hsieh, Han-Lin *Univ. of Southern California*; Shanechi, Maryam* *Univ. of Southern California*

12:00-12:15 WeCT11.3
Design of a Pulse-Triggered Four-Channel Functional Electrical Stimulator using Complementary Current Source and Time Division Multiplexing Output Method
Wang, Haipeng *Southeast Univ., Institute of RF- & OE-ICs*; Wang, Zhigong* *Southeast Univ.*; Lü, Xiaoying *Southeast Univ.*; Huang, Zonghao *Southeast Univ.*; Zhou, Yuxuan *School of Biological Science and Medical Engineering, Southeast Uni*

12:15-12:30 WeCT11.4
Nonlinear Mappings between Discrete and Simultaneous Motions to Decrease Training Burden of Simultaneous Pattern Recognition Myoelectric Control
Ingraham, Kimberly* *Rehabilitation Institute of Chicago*; Smith, Lauren *Northwestern Univ.*; Simon, Ann *Rehabilitation Institute of Chicago*; Hargrove, Levi *Rehabilitation Institute of Chicago*

12:30-12:45 WeCT11.5
Influence of Multiple Dynamic Factors on the Performance of Myoelectric Pattern Recognition
Khushaba, Rami N. *Univ. of Technology, Sydney (UTS)*; Ali, Ali Hussian* *Baghdad Univ.*; Kodagoda, Sarath *Univ. of Technology, Sydney (UTS)*

12:45-13:00 WeCT11.6
Design and Preliminary Testing of the RIC Hybrid Knee Prosthesis
Lenzi, Tommaso* *Rehabilitation Institute of Chicago*; Sensinger, Jonathon W. *Univ. of New Brunswick*; Lipsey, Jim *Rehabilitation Institute of Chicago*; Hargrove, Levi *Rehabilitation Institute of Chicago*; Kuiken, Todd *Rehabilitation Institute of Chicago*

WeCT13: 11:30-13:00 Suite 6
5.3 Respiratory Engineering I (Oral Session)
Chair: Jané, Raimon *Institut de Bioenginyeria de Catalunya (IBEC)*
Co-Chair: de Chazal, Philip *University of Sydney*

11:30-11:45 WeCT13.1
Model-Based Estimation of Pulmonary Compliance and Resistance Parameters from Time-Based Capnography
Abid, Abubakar* *Massachusetts Institute of Technology*; Mieloszyk, Rebecca *Massachusetts Institute of Technology*; Vergheze, George *Massachusetts Institute of Technology*; Krauss, Baruch *Harvard Medical School*; Heldt, Thomas *Massachusetts Institute of Technology*

11:45-12:00 WeCT13.2
Design and Characterization of a Measurement System for Monitoring Pressure Exerted by Bronchial Blockers: in Vitro Trials
Vallone, Niccolò *Univ. Bampus Bio-Medico di Roma*; Pizzo, Cecilia Maria *Univ. Bampus Bio-Medico di Roma*; Massaroni, Carlo* *Univ. Campus Bio-Medico di Roma*; Saccomandi, Paola *Univ. Campus Bio-Medico di Roma*; Silvestri, Sergio *Univ. Campus Bio-Medico di Roma*; Carassiti, Massimiliano *Univ. Campus Bio-Medico di Roma*; Mattei, Alessia *Univ. Bampus Bio-Medico di Roma*; Schena, Emiliano *Univ. of Rome Campus Bio-Medico*

12:00-12:15 WeCT13.3
Liquid Ventilator for Ultrafast Hypothermia Induction in Juvenile Lambs: Preliminary Results
Nadeau, Mathieu* *Univ. de Sherbrooke*; Sage, Michaël *Univ. de Sherbrooke*; Kohlhauer, Matthias *Institute National de la Santé et de la Recherche Médicale*; Robert, Raymond *Univ. de Sherbrooke*; Vandamme, Jonathan *Univ. de Sherbrooke*; Mousseau, Julien *Univ. de Sherbrooke*; Tissier, Renaud *Institute National de la Santé et de la Recherche Médicale*; Praud, Jean-Paul *Univ. of Sherbrooke*; Walti, Hervé *Univ. de Sherbrooke*; Micheau, Philippe *Univ. de Sherbrooke*

12:15-12:30 WeCT13.4
Clustering of Capnogram Features to Track State Transitions during Procedural Sedation
Mieloszyk, Rebecca* *Massachusetts Institute of Technology*; Guo, Margaret *MIT*; Vergheze, George *Massachusetts Institute of Technology*; Andolfatto, Gary *Univ. of British Columbia, Lions Gate Hospital*; Heldt, Thomas *Massachusetts Institute of Technology*; Krauss, Baruch *Harvard Medical School*

12:30-12:45 WeCT13.5
EMG-Derived Respiration Signal using the Fixed Sample Entropy during an Inspiratory Load Protocol
Estrada, Luis *Univ. Politècnica de Catalunya*; Torres, Abel* *Univ. Politècnica de Catalunya*; Sarlabous, Leonardo *Univ. Politècnica de Catalunya (UPC)*; Jané, Raimon *Institute de Bioenginyeria de Catalunya (IBEC)*

12:45-13:00 WeCT13.6
Wearable Lung-Health Monitoring System with Electrical Impedance Tomography
Hong, Sunjoo* *KAIST*; Lee, Jaehyuk *KAIST*; Yoo, Hoi-Jun *KAIST*

WeCT15: 11:30-13:00 White 1
9.3 Design, Development and Standards of Medical Devices I (Invited Session)
Chair: Andersen, Björn *Universität zu Lübeck*
Co-Chair: Kasparick, Martin *University of Rostock*

11:30-11:45 WeCT15.1
Communication Patterns for Interconnecting and Composing Medical Systems
Ranganath, Venkatesh-Prasad* *Kansas State Univ.*; Kim, Yu Jin *Kansas State Univ.*; Hatcliff, John *Kansas State Univ.*; Robby, FNU *Kansas State Univ.*

11:45-12:00 WeCT15.2
Dynamic DICOM Configuration in a Service-Oriented Medical Device Architecture
Schlamecher, Jan* *OFFIS – Institute for Information Tech.*; Onken, Michael *OFFIS – Institute for Information Tech., Oldenburg, Germany*; Eichelberg, Marco *OFFIS – Institute for Information Tech., Oldenburg, Germany*; Hein, Andreas *OFFIS – Institute for Information Tech., Oldenburg, Germany*

12:00-12:15 WeCT15.3
New IEEE 11073 Standards for Interoperable, Networked Point-of-Care Medical Devices
Kasparick, Martin* *Univ. of Rostock*; Schlichting, Stefan *Drägerwerk AG & Co. KGaA*; Golasowski, Frank *Univ. of Rostock*; Timmermann, Dirk *Univ. of Rostock*

12:15-12:30 WeCT15.4
Reporting Device Observations for Semantic Interoperability of Surgical Devices and Clinical Information Systems
Andersen, Björn* *Univ. zu Lübeck*; Ulrich, Hannes *Univ. zu Lübeck*; Rehmann, Daniel *Univ. zu Lübeck*; Kock, Ann-Kristin *Univ. zu Lübeck*; Wrage, Jan-Hinrich *Univ. zu Lübeck*; Ingenerf, Josef *Univ. zu Lübeck*

12:30-12:45 WeCT15.5
Regulatory Science based Approach in Development of Novel Medical Devices
Sakuma, Ichiro* *The Univ. of Tokyo*

- 12:45-13:00 WeCT15.6
Rule-Based Medical Device Adaptation for the Digital Operating Room
 Franke, Stefan* *Univ. Leipzig*; Neumuth, Thomas *Innovation Center Computer Assisted Surgery, Univ. of Leipzig*
- 12:15-12:30 WeCT17.4
Single-Trial Classification of Multi-User P300-Based Brain-Computer Interface using Riemannian Geometry
 Korczowski, Louis* *Univ. Grenoble-Alpes, GIPSA-Lab*; Jutten, Christian *Univ. of Grenoble*; Congedo, Marco *CNRS*
- WeCT16: 11:30-13:00 White 2
7.2 Biomimetic and Injectable Systems in Regenerative Medicine (Invited Session)
Chair: Tanzi, Maria Cristina *INSTM, local unit Politecnico di Milano*
Co-Chair: Farè, Silvia *Politecnico di Milano*
- 12:30-12:45 WeCT17.5
Feature Extraction for BCIs based on Electromagnetic Source Localization and Multiclass Filter Bank Common Spatial Patterns
 Zaitcev, Aleksandr* *The Univ. of Sheffield*; Cook, Greg *Univ. of Sheffield, UK*; Liu, Wei *The Univ. of Sheffield*; Paley, Martyn *Univ. of Sheffield*; Milne, Elizabeth *The Univ. of Sheffield*
- 11:30-11:45 WeCT16.1
Biofabrication for Regenerative Medicine
 Moroni, Lorenzo* *Maastricht Univ.*
- 12:45-13:00 WeCT17.6
Classifying the Auditory P300 using Mobile EEG Recordings without Calibration Phase
 Zink, Rob* *Katholieke Univ. Leuven*; Hunyadi, Borbala *KU Leuven*; Van Huffel, Sabine *Katholieke Univ. Leuven*; De Vos, Maarten *Univ. of Oxford*
- 11:45-12:00 WeCT16.2
Bioengineered Cell-Instructive 3D Matrices as Vehicles for Cellular Therapies
 Barrias, Cristina C* *INEB-Instituto de Engenharia Biomédica; Univ. do Porto*
- 12:00-12:15 WeCT16.3
A Novel 3-Dimensional Approach for Cardiac Regeneration
 Munarin, Fabiola* *Brown Univ.*; Coulombe, Kareen *Brown Univ.*
- WeCT18: 11:30-13:00 Space 2
1.8 Disentangling Patho-Physiological Mechanisms from Multivariate Cardiovascular Variability Series (Invited Session)
Chair: Porta, Alberto *Universita' degli Studi di Milano*
Co-Chair: Faes, Luca *University of Trento*
- 12:15-12:30 WeCT16.4
Biofunctionalization of Polymeric Surfaces
 Mateos-Timoneda, Miguel Angel* *CIBER-BBN*; Levato, Riccardo *Institute for Bioengineering of Catalonia*; Punet, Xavier *Institute for Bioengineering of Catalonia*; Cano, Irene *Institute for Bioengineering of Catalonia*; Castano, Oscar *Institute for Bioengineering of Catalonia*; Engel, Elisabeth *UPC*
- 11:30-11:45 WeCT18.1
Wiener-Granger Causality in QT-HP Variability Interactions
 Porta, Alberto* *Univ. degli Studi di Milano*; Bari, Vlasta *IRCCS Policlinico San Donato*; Marchi, Andrea *Dept. of Electronics Information and Bioengineering, Politec*; De Maria, Beatrice *IRCCS Fondazione Salvatore Maugeri, Milano*; Cerutti, Sergio *Politecnico di Milano*
- 12:30-12:45 WeCT16.5
Molecular Mechanisms Orchestrating the Stem Cell Response to Translational Scaffolds
 Brown, Justin* *The Pennsylvania State Univ.*
- 11:45-12:00 WeCT18.2
Assessing Cerebral Blood Flow Control from Variability in Blood Pressure and Arterial CO₂ Levels
 Nikolic, Dragana* *Institute of Sound and Vibration Research, Univ. of Southam*; Birch, Anthony Alan *Univ. Hospital Southampton*; Panerai, Ronney *Univ. of Leicester*; Simpson, David Martin *Univ. of Southampton*
- 12:45-13:00 WeCT16.6
Biomimetic Hybrid Scaffolds for Osteo-Chondral Tissue Repair: Design and Osteogenic Differentiation of Human Placenta-Derived Cells (hPDC)
 Farè, Silvia* *Politecnico di Milano*; Bertoldi, Serena *Politecnico di Milano*; Meskinfam, Masoumeh *Islamic Azad Univ. Lahijan branch*; Spoldi, Valentina *Fondazione Poliambulanza-Istituto Ospedaliero, Brescia*; Tanzi, Maria Cristina *INSTM, local unit Politecnico di Milano*; Parolini, Ornella *Fondazione Poliambulanza-Istituto Ospedaliero, Brescia*
- 12:00-12:15 WeCT18.3
Algorithms for the Inference of Causality in Dynamic Processes: Application to Cardiovascular and Cerebrovascular Variability
 Faes, Luca* *Univ. of Trento*; Porta, Alberto *Univ. degli Studi di Milano*; Nollo, Giandomenico *Univ. of Trento*
- WeCT17: 11:30-13:00 Space 1
1.7 Biomedical Signal Classification I: BCI Application (Oral Session)
- 12:15-12:30 WeCT18.4
Causal Coherence Analysis of Cardiovascular Variables in Obese Preadolescents and Adolescents
 Javorka, Michal* *Comenius Univ., Jessenius Faculty of Medicine*; Czipelova, Barbora *Dept. of Physiology, Comenius Univ., Jessenius Faculty*; Turianikova, Zuzana *Dept. of Physiology, Comenius Univ., Jessenius Faculty*; Lazarova, Zuzana *Dept. of Physiology, Comenius Univ., Jessenius Faculty*; Tonhajzerova, Ingrid *Dept. of Physiology, Comenius Univ., Jessenius Faculty*; Javorka, Kamil *Dept. of Physiology, Comenius Univ., Jessenius Faculty*; Baumert, Mathias *The Univ. of Adelaide*
- 11:30-11:45 WeCT17.1
An Investigation of Time-Varying and Simultaneous Frequency Stimulation for Multi-Class SSVEP-Based Brain-Computer Interface
 Dehzangi, Omid* *Univ. of Michigan-Dearborn*; Jafari, Roozbeh *Univ. of Texas at Dallas*
- 12:30-12:45 WeCT18.5
Measuring Heart Rate Variability by Means of Information Entropies based on Choi-Williams Distribution
 Vallverdu, Montserrat* *Univ. Politècnica de Catalunya*; Claria, Francesc *Lleida Univ.*; Melia, Umberto *Sergio Pio Univ. Politècnica de Catalunya*; Bayes de Luna, Antonio *Hospital de la Santa Creu i Sant Pau*; Caminal, Pere *Technical Univ. of Catalonia (UPC)*
- 11:45-12:00 WeCT17.2
EEG Error Potentials Detection and Classification using Time-Frequency Features for Robot Reinforcement Learning
 Boubchir, Larbi* *Univ. of Paris 8, LIASD research Lab.*; Touati, Youcef *LIASD - Univ. of Paris 8*; Daachi, Boubaker *CNRS - AIST - JRL*; Ali Chérif, Arab *LIASD - Univ. of Paris 8*
- 12:00-12:15 WeCT17.3
Online Control of a Humanoid Robot through Hand Movement Imagination using CSP and ECoG based Features
 Kapeller, Christoph* *g.tec Medical Engineering GmbH*; Gergondet, Pierre *CNRS*; Kamada, Kyousuke *Asahikawa Medical Univ.*; Ogawa, Hiroshi *Asahikawa Medical Univ.*; Takeuchi, Fumiya *Asahikawa Medical Univ.*; Ortner, Rupert *g.tec - Guger Technologies OG*; Prueckl, Robert *g.tec Medical Engineering GmbH*; Kheddar, Abderrahmane *CNRS*; Scharinger, Josef *Dept. of Computational Perception, Johannes Kepler Univ.*; Guger, Christoph *g.tec Medical Engineering GmbH*
- 12:45-13:00 WeCT18.6
Symbolic Dynamics of Pulse Transit Time and Heart Period in Children with Upper Airway Obstruction
 Baumert, Mathias* *The Univ. of Adelaide*; Kohler, Mark *Univ. of South Australia*; Pamula, Yvonne *Adelaide Women's and Children's Hospital*; Immanuel, Sarah Anita *Univ. of Adelaide*

WeCT19: 11:30-13:00 2.6 fMRI and Brain Connectivity (Oral Session) Chair: Baccala, Luiz Antonio <i>Escola Politecnica</i> Co-Chair: Mitsis, Georgios D. <i>McGill University</i>	Space 3	12:15-12:30 Magnetic Human Body Communication Park, Jiwoong <i>Univ. of California, San Diego</i> ; Mercier, Patrick P.* <i>Univ. of California, San Diego</i>	WeCT20.4
11:30-11:45 Evaluation of Performance to Detect Default Mode Network Among Some Algorithms Applied to Resting-State fMRI Data Tachikawa, Kenta* <i>Waseda Univ.</i> ; Izawa, Shun <i>Waseda Univ.</i> ; Ono, Yumie <i>Meiji Univ.</i> ; Kuriki, Shinya <i>Tokyo Denki Univ.</i> ; Ishiyama, Atsushi <i>Waseda Univ.</i>	WeCT19.1	12:30-12:45 Human Body and Head Characteristics as a Communication Medium for Body Area Network Kifle, Yonatan <i>Khalifa Univ. of Science, Technology and Research</i> ; Kim, Hun-Seok <i>Univ. of Michigan</i> ; Yoo, Jerald* <i>Masdar Institute of Science and Technology</i>	WeCT20.5
11:45-12:00 Arterial CO2 Effects Modulate Dynamic Functional Connectivity in Resting-State fMRI Nikolaou, Foivia <i>KIOS Research Center, Dept. of Electrical and Computer Engi</i> ; Orphanidou, Christina <i>Univ. of Cyprus</i> ; Wise, Richard G. <i>Cardiff Univ. Brain Research Imaging Center (CUBRIC)</i> , Schoo; Mitsis, Georgios D.* <i>McGill Univ.</i>	WeCT19.2	12:45-13:00 Smart Photoplethysmographic Sensor for Pulse Wave Registration at Different Vascular Depths Leier, Mairo* <i>Tallinn Univ. of Technology</i> ; Pilt, Kristjan <i>Technical Univ. of Tallinn</i> ; Karai, Deniss <i>TUT Technomedicum</i> ; Jervan, Gert <i>Tallinn Univ. of Technology</i>	WeCT20.6
12:00-12:15 Effects of Acute Electromagnetic Fields Exposure on the Interhemispheric Homotopic Functional Connectivity during Resting State Lv, Bin* <i>China Academy of Telecommunication Research of Ministry of Indus</i> ; Shao, Qing <i>China Academy of Telecommunication Research of Ministry of Indus</i> ; Chen, Zhiye <i>PLA General Hospital</i> ; Ma, Lin <i>PLA General Hospital</i> ; Wu, Tongning <i>China Academy of Telecommunication Research of Ministry of Indus</i>	WeCT19.3	WeET1: 15:30-17:00 8.3 Mechanobiology (Invited Session) Chair: Remuzzi, Andrea <i>University of Bergamo</i> Co-Chair: Raimondi, Manuela Teresa <i>Politecnico di Milano</i>	Brown 1
12:15-12:30 Independent Component versus Local Sparse Component Analysis in Resting State fMRI Vieira, Gilson <i>Univ. of São Paulo</i> ; Amaro, Edson <i>Univ. of São Paulo</i> ; Sato, João Ricardo <i>Univ. Federal do ABC</i> ; Baccala, Luiz Antonio* <i>Escola Politecnica</i>	WeCT19.4	15:30-15:45 Using Microfluidics to Investigate Tumor Cell Extravasation and T-Cell Immunotherapies Pavesi, Andrea <i>Singapore-MIT Alliance for Research and Technology, BioSyM</i> ; Tanoto, Tan Anthony <i>Duke Nus</i> ; Chen, Michelle <i>MIT</i> ; Adriani, Giulia <i>Singapore-MIT Alliance for Research and Technology</i> ; Antonio, Bertoletti <i>Duke Nus</i> ; Kamm, Roger D.* <i>Massachusetts Institute of Technology</i>	WeET1.1
12:30-12:45 Emergence of the Default-Mode Network from Resting-State to Activation-State in Reciprocal Social Interaction via Eye Contact Lee, Ray* <i>Princeton Univ.</i>	WeCT19.5	15:45-16:00 A Strain-Dependent Diffusivity Model to Study the Nuclear Import of Mechanobiological Transcription Factors Nava, Michele* <i>Politecnico di Milano</i> ; Fedele, Roberto <i>Politecnico di Milano</i> ; Raimondi, Manuela Teresa <i>Politecnico di Milano</i>	WeET1.2
12:45-13:00 Object Categories Specific Brain Activity Classification with Simultaneous EEG-fMRI Ahmad, Rana Fayyaz <i>Univ. Teknologi Petronas</i> ; Malik, Aamir Saeed* <i>Univ. Teknologi Petronas</i> ; Kamel, Nidal <i>Technical Univ. of Petronas</i> ; Reza, Faruque <i>Dept. of Neurosciences, School of Medical Sciences, Hospita</i>	WeCT19.6	16:00-16:15 Real-Time Deformability Cytometry as a Label-Free Indicator of Cell Function Otto, Oliver* <i>Technische Univ. Dresden</i> ; Rosendahl, Philipp <i>Technische Univ. Dresden</i> ; Golfier, Stefan <i>Technische Univ. Dresden</i> ; Mietke, Alexander <i>Max Planck Institute of the Physics of Complex Systems</i> ; Herbig, Maik <i>Technische Univ. Dresden</i> ; Jacobi, Angela <i>Technische Univ. Dresden</i> ; Toepfner, Nicole <i>Technische Univ. Dresden</i> ; Herold, Christoph <i>Technische Univ. Dresden</i> ; Klaue, Daniel <i>Technische Univ. Dresden</i> ; Girardo, Salvatore <i>Technische Univ. Dresden</i> ; Winzi, Maria <i>Technische Univ. Dresden</i> ; Fischer-Friedrich, Elisabeth <i>Technische Univ. Dresden</i> ; Guck, Jochen <i>Technische Univ. Dresden</i>	WeET1.3
WeCT20: 11:30-13:00 3.2 Body Sensor Networks (Oral Session) Co-Chair: Sassi, Roberto <i>Università degli Studi di Milano</i>	Space 4	16:15-16:30 Modulation of Cellular Responses: The Two-Photon Polymerization Approach in the Control of the Physical Micro/Nanoenvironment Marino, Attilio <i>Italian Institute of Technology</i> ; Filippeschi, Carlo <i>Italian Institute of Technology</i> ; Mattoli, Virgilio <i>Italian Institute of Technology</i> ; Mazzolai, Barbara <i>Istituto Italiano di Tecnologia</i> ; Ciofani, Gianni* <i>Italian Institute of Technology</i>	WeET1.4
11:30-11:45 Smart Helmet: Monitoring Brain, Cardiac and Respiratory Activity von Rosenberg, Wilhelm* <i>Imperial College London</i> ; Chanwimalueang, Theerasak <i>Imperial College London</i> ; Goverdovsky, Valentin <i>Imperial College London</i> ; Mandic, Danilo <i>Imperial College</i>	WeCT20.1	16:30-16:45 Theory and Application of Arterial Tissue In-Host Remodelling Zunino, Paolo* <i>Univ. of Pittsburgh</i>	WeET1.5
11:45-12:00 Accelerometer Body Sensor Network Improves Systolic Time Interval Assessment with Wearable Ballistocardiography Wiens, Andrew* <i>Georgia Institute of Technology</i> ; Inan, Omer <i>Georgia Institute of Technology</i>	WeCT20.2	16:45-17:00 Tissue Motion Due to Needle Deflection Leibinger, Alexander* <i>Imperial College London</i> ; Burrows, Christopher <i>Imperial College London</i> ; Oldfield, Matthew <i>Imperial College London</i> ; Rodriguez y Baena, Ferdinando <i>Imperial College London</i>	WeET1.6
12:00-12:15 Periodic Leg Movement (PLM) Monitoring using a Distributed Body Sensor Network Madhushri, Priyanka <i>Univ. of Alabama in Huntsville</i> ; Ahmed, Beena <i>Texas A&M Univ. at Qatar</i> ; Penzel, Thomas <i>Charite Univ. Hospital</i> ; Jovanov, Emil* <i>Univ. of Alabama in Huntsville</i>	WeCT20.3		

WeET2: 15:30-17:00 Brown 2

4.3 Cardiovascular System Modeling (Oral Session)
Chair: Khoo, Michael *University of Southern California*
Co-Chair: Fotiadis, Dimitrios I. *University of Ioannina*

15:30-15:45 WeET2.1

Modeling of Blood Flow through Sutured Micro-Vascular Anastomoses

Karanasiou, Georgia *Dept. of Biomedical Research, Institute of Molecular Biolog; Gatsios, Dimitrios Dept. of Biomedical Research, Institute of Molecular Biolog; Lykissas, Marios Dept. of Orthopaedic Surgery, Univ. of Ioannina, Schoo; Stefanou, Kostas FORTH-BRI; Rigas, Georgios Univ. of Ioannina; Lagaris, Isaac Dept. of Computer Science, Univ. of Ioannina, Ioannina; Kostas-Agnantis, Ioannis Dept. of Orthopaedic Surgery, Univ. of Ioannina, Schoo; Gkiatas, Ioannis Dept. of Orthopaedic Surgery, Univ. of Ioannina, Schoo; Beris, Alexandros Dept. of Orthopaedic Surgery, Univ. of Ioannina, Schoo; Fotiadis, Dimitrios I.* *Univ. of Ioannina**

15:45-16:00 WeET2.2

Simulation of Aortic Valve Dynamics during Ventricular Support

Alonazi, Khalid* *UNSW; Lovell, Nigel H. Univ. of New South Wales; Dokos, Socrates Univ. of New South Wales*

16:00-16:15 WeET2.3

Modeling of Neonatal Hemodynamics during PDA Closure

Soleymani, Sadaf* *Children's Hospital Los Angeles, Univ. of Southern California; Khoo, Michael Univ. of Southern California; Noori, Shahab Children's Hospital Los Angeles; Seri, Istvan Children's Hospital Los Angeles, Sidra Medical and Research Cent*

16:15-16:30 WeET2.4

Development of a Cerebral Circulation Model for the Automatic Control of Brain Physiology

Utsuki, Tomohiko* *Tokai Univ.*

16:30-16:45 WeET2.5

Morphological Analysis of Pressure Wave in the Arterial Tree with Stenosis – A Modeling Approach

Lakshmanan, Suganthi* *IIT Madras; M, Manivannan Indian Institute of Technology Madras*

16:45-17:00 WeET2.6

A Method for Localized Computation of Pulse Wave Velocity in Carotid Structure

Patil, Ravindra* *Philips Research India; Palanisamy, Krishnamoorthy Philips Research India; Sethuraman, Shiram Philips Research North America*

WeET3: 15:30-17:00 Brown 3

6.7 Brain-Computer/Machine Interface III (Oral Session)
Chair: Rutkowski, Tomasz *University of Tsukuba*

15:30-15:45 WeET3.1

Improved Concept and First Results of an Auditory Single-Switch BCI for the Future use in Disorders of Consciousness Patients

Bauernfeind, Günther *Graz Univ. of Technology; Horki, Petar Graz Univ. of Technology; Kurz, Eva-Maria Graz Univ. of Technology; Schippinger, Walter Albert Schweitzer Hospital; Pichler, Gerald Albert Schweitzer Klinik; Müller-Putz, Gernot* Graz Univ. of Technology*

15:45-16:00 WeET3.2

Chromatic and High-Frequency Cvep-Based BCI Paradigm

Aminaka, Daiki *Univ. of Tsukuba; Makino, Shoji Univ. of Tsukuba; Rutkowski, Tomasz* Univ. of Tsukuba*

16:00-16:15 WeET3.3

Inter-Stimulus Interval Study for the Tactile Point-Pressure Brain-Computer Interface

Shimizu, Kensuke *Univ. of Tsukuba; Makino, Shoji Univ. of Tsukuba; Rutkowski, Tomasz* Univ. of Tsukuba*

16:15-16:30 WeET3.4

Accurate Single-Trial Detection of Movement Intention Made Possible using Adaptive Wavelet Transform

Chamanzar, Alireza* *Sharif Univ. of Tech.; Malekmohammadi, Alireza Sharif Univ. of Tech.; Bahrani, Masih Sharif Univ. of Tech.; Shabany, Mahdi Sharif Univ. of Tech.*

16:30-16:45 WeET3.5

Event-Related Modulation of Steady-State Visual Evoked Potentials for Eyes-Closed Brain Computer Interface

Nishifuji, Seiji* *Yamaguchi Univ.; Sugita, Yuya Yamaguchi Univ.; Hirano, Hitoshi Yamaguchi Univ.*

16:45-17:00 WeET3.6

Towards Decoding of Functional Movements from the Same Limb using EEG

Shiman, Farid* *Univ. of Tübingen; Irastorza-Landa, Nerea Univ. of Tübingen; Sarasola-Sanz, Andrea Univ. of Tübingen; Spüler, Martin Univ. of Tübingen; Birbaumer, Niels Eberhard-Karls- Univ.; Ramos-Murguialday, Ander Eberhard Karls Univ. of Tübingen/TECNALIA*

WeET4: 15:30-17:00 Amber 1

1.9 Signal Processing for Artifact Removal (Oral Session)

Chair: Mitsis, Georgios D. *McGill University*
Co-Chair: Picard, Rosalind *Massachusetts Institute of Technology*

15:30-15:45 WeET4.1

Comparison of Three ICA Algorithms for Ocular Artifact Removal from TMS-EEG Recordings

Lyzhko, Ekaterina* *Schleswig-Holstein Univ. Hospital (UK-SH); Hamid, Laith Univ. of Kiel; Makhortkyh, Sergey the Institute of Mathematical Problems of Biology, Pushchino, Mo; Moliadze, Vera Schleswig-Holstein Univ. Hospital (UK-SH); Siniatchkin, Michael Univ. of Kiel*

15:45-16:00 WeET4.2

Artifact Removal Algorithms for Stroke Detection using a Multistatic MIST Beamforming Algorithm

Ricci, Elisa* *Univ. of Rome "Tor Vergata"; Di Domenico, Simone Univ. of Rome "Tor Vergata"; Cianca, Ernestina Univ. of Rome "Tor Vergata"; Rossi, Tommaso Univ. of Rome "Tor Vergata"*

16:00-16:15 WeET4.3

Automatic Identification of Artifacts in Electrodermal Activity Data

Taylor, Sara* *Massachusetts Institute of Technology; Jaques, Natasha Massachusetts Institute of Technology; Chen, Weixuan Massachusetts Institute of Technology; Fedor, Szymon Massachusetts Institute of Technology; Sano, Akane Massachusetts Institute of Technology; Picard, Rosalind Massachusetts Institute of Technology*

16:15-16:30 WeET4.4

Extending the Automated Gastrointestinal Analysis Pipeline: Removal of Invalid Slow Wave Marks in Gastric Serosal Recordings

Paskaranandavadivel, Niranchan* *The Univ. of Auckland; Du, Peng The Univ. of Auckland; Erickson, Jon Washington and Lee Univ.; O'Grady, Gregory Univ. of Auckland; Cheng, Leo K The Univ. of Auckland*

16:30-16:45 WeET4.5

Investigating Effects of Different Artefact Types on Motor Imagery BCI

Frølich, Laura* *Technical Univ. of Denmark; Winkler, Irene Berlin Institute of Technology; Müller, Klaus-Robert Technical Univ. of Berlin; Samek, Wojciech Berlin Institute of Technology*

16:45-17:00 WeET4.6

Automatic Detection and Removal of Muscle Artifacts from Scalp EEG Recordings in Patients with Epilepsy

Anastasiadou, Maria *Univ. of Cyprus; Christodoulakis, Manolis Univ. of Cyprus; Papathanasiou, Eleftherios S. The Cyprus Institute for Neurology and Genetics; Papacostas, Savvas S. The Cyprus Institute for Neurology and Genetics; Mitsis, Georgios D.* McGill Univ.*

WeET5: 15:30-17:00 Amber 2
1.10 Time-Scale Analysis of Biosignals and Wavelets (Oral Session)
Chair: Yamamoto, Yoshiharu *The University of Tokyo*
Co-Chair: Chouvarda, Ioanna *Aristotle University*

15:30-15:45 WeET5.1
Point-Process High-Resolution Representations of Heartbeat Dynamics for Multiscale Analysis: A CHF Survivor Prediction Study

Valenza, Gaetano *Univ. of Pisa-MGH-Harvard Medical School*; Wendt, Herwig *CNRS, Univ. of Toulouse*; Kiyono, Ken *Osaka Univ.*; Hayano, Junichiro *Nagoya City Univ.*; Watanabe, Eiichi *Fujita Health Univ.*; Yamamoto, Yoshiharu *The Univ. of Tokyo*; Abry, Patrice *ENS Lyon, CNRS*; Barbieri, Riccardo* *MGH-Harvard Medical School-MIT*

15:45-16:00 WeET5.2
Removing Movement Artifacts from Equine ECG Recordings Acquired with Textile Electrodes

Lanata', Antonio* *Univ. of Pisa*; Guidi, Andrea *Univ. of Pisa*; Baragli, Paolo *Dept. of Veterinary Sciences, Univ. of Pisa*; Paradiso, Rita *Smartex srl*; Valenza, Gaetano *Univ. of Pisa-MGH-Harvard Medical School*; Scilingo, Enzo *Pasquale Univ. of Pisa*

16:00-16:15 WeET5.3
Primary Study for Detection of Arterial Blood Pressure Waveform Components

Paradkar, Neeraj* *International Institute of Information Technology*; Roy Chowdhury, Shubhajt *International Institute of Information Technology, Hyderabad*

16:15-16:30 WeET5.4
Ineffective Efforts in ICU Assisted Ventilation: Exploring Causalities via Multiscale Analysis

Chytas, Achilleas *Lab of Medical Informatics, Medical School, Aristotle Univ.*; Babales, Dimitris *Dept. of Intensive Care Medicine, Univ. Hospital of He*; Georgopoulos, Dimitris *Dept. of Intensive Care Medicine, Univ. Hospital of He*; Maglaveras, Nikolaos *Aristotle Univ. of Thessaloniki*; Chouvarda, Ioanna* *Aristotle Univ.*

16:30-16:45 WeET5.5
Dysfunctional Long Term Habituation to Exogeneous Tinnitus-Matched Sounds in Patients with High Tinnitus Distress

Lehser, Caroline *Saarland Univ. Hospital*; Hannemann, Ronny *Siemens Audiologische Technik*; Corona-Strauss, Farah I. *Saarland Univ. Hospital*; Strauss, Daniel J.* *Saarland Univ., Medical Faculty*; Haab, Lars *Saarland Univ. Hospital*; Seidler-Fallböhrmer, Birgit *TTZH GmbH*; Seidler, Harald *MediClin Bosenberg Kliniken*

16:45-17:00 WeET5.6
P-Leader Multifractal Analysis and Sparse SVM for Intrapartum Fetal Acidosis Detection

Leonarduzzi, Roberto Fabio* *Ecole Normale Supérieure de Lyon*; Spilka, Jiri *Czech Technical Univ. in Prague*; Frecon, Jordan *ENS Lyon, CNRS*; Wendt, Herwig *CNRS, Univ. of Toulouse*; Pustelnik, Nelly *Laboratoire de Physique ENS de Lyon, CNRS UMR5672, Univ. Ly.*; Jaffard, Stéphane *Univ. Paris XII*; Abry, Patrice *ENS Lyon, CNRS*; Doret, Muriel *Hospices Civils de Lyon Univ. Lyon I*

WeET6: 15:30-17:00 Amber 3
2.7 Image Registration (Oral Session)
Chair: Grisan, Enrico *University of Padova*
Co-Chair: Pickering, Mark *The University of New South Wales*

15:30-15:45 WeET6.1
Image Registration Robust to Sparse Large Errors

Liu, Jing* *Univ. of California, San Diego*; Chuang, Marian *UCSD*; Chisholm, Andrew *UC San Diego*; Cosman, Pamela *Univ. of California, San Diego*

15:45-16:00 WeET6.2
Optical Flow with Structure Information for Epithelial Image Mosaicing

Ali, Sharib* *Univ. of Lorraine*; Faraz, Khuram *Univ. of Lorraine*; Daul, Christian *Univ. of Lorraine*; Blondel, Walter *Univ. of Lorraine*

16:00-16:15 WeET6.3
Automatic Mitral Annulus Tracking in Volumetric Ultrasound using Non-Rigid Image Registration

De Veene, Henri* *IBiTech-bioMMeda, Univ. of Ghent*; Bertrand, Philippe *Dept. of Cardiology, Ziekenhuis Oost-Limburg, Genk*; Popovic, Natasa *KU Leuven*; Vandervoort, Pieter *Dept. of Cardiology, Ziekenhuis Oost-Limburg, Genk*; Claus, Piet *Catholic Univ. Leuven*; De Beule, Matthieu *IBiTech-bioMMeda, Univ. of Ghent and FEops, Ghent*; Heyde, Brecht *KU Leuven*

16:15-16:30 WeET6.4
Automated Fiducial Point Selection for Reducing Registration Error in the Co-Localisation of Left Atrium Electroanatomic and Imaging Data

Ali, Rheeda* *Imperial College London*; Cantwell, Chris *Imperial College London*; Qureshi, Norman *Imperial College London*; Roney, Caroline *Imperial College London*; Lim, Phang Boon *Imperial College London*; Sherwin, Spencer *Imperial College London*; Siggers, Jennifer *Imperial College London*; Peters, Nicholas *Imperial College London*

16:30-16:45 WeET6.5
Registration of Coronary Arteries in Computed Tomography Angiography Images using Hidden Markov Model

Luo, Yuxuan *Tsinghua Univ.*; Feng, Jianjiang* *Tsinghua Univ.*; Xu, Miao *Tsinghua Univ.*; Zhou, Jie *Tsinghua Univ.*; Min, James *Weill Cornell Medical College*; Xiong, Guanglei *Weill Cornell Medical College*

16:45-17:00 WeET6.6
Non-Rigid Registration of Cervical Spine MRI Volumes

Aktar, Mst. Nargis* *Univ. of New South Wales, Canberra*; Alam, Md. Jahangir *Univ. of New South Wales, Canberra*; Pickering, Mark *The Univ. of New South Wales*; Webb, Alexandra *The Australian National Univ. Medical School*; Perriman, Diana *Canberra Hospital*

WeET7: 15:30-17:00 Amber 4
2.8 Image Segmentation I (Oral Session)
Chair: Krishnan, Karthik *Samsung R&D Institute*

15:30-15:45 WeET7.1
Atlas-Based Segmentation of Abdominal Organs in 3D Ultrasound, and Its Application in Automated Kidney Segmentation

Marsousi, Mahdi* *Univ. of Toronto*; Plataniotis, Konstantinos *Univ. of Toronto*; Stergiopoulos, Stergios *Defence Research and Development Canada Toronto, an Agency for t*

15:45-16:00 WeET7.2
A Fully-Automatic Locally Adaptive Thresholding Algorithm for Blood Vessel Segmentation in 3D Digital Subtraction Angiography

Boegel, Marco* *Friedrich-Alexander-Univ. Erlangen-Nuremberg*; Hoelter, Philip *Friedrich-Alexander Univ. Erlangen-Nuremberg*; Redel, Thomas *Siemens AG*; Maier, Andreas *Friedrich-Alexander-Univ. Erlangen-Nuremberg*; Hornegger, Joachim *Friedrich-Alexander Univ. Erlangen-Nuremberg*; Doerfler, Arnd *Friedrich-Alexander Univ. Erlangen-Nuremberg*

16:00-16:15 WeET7.3
Emphasizing Mesenteric Blood Vessels in Laparoscopic Colon Cancer Surgery Video Images

Hiroyasu, Tomoyuki *Doshisha Univ.*; Tanaka, Nachi* *Doshisha Univ.*; Hagiwara, Akeo *Doshisha Univ.*; Ozamoto, Yuki *Doshisha Univ.*; Yokouchi, Hisatake *Doshisha Univ.*

16:15-16:30 WeET7.4
Automatic Segmentation of the Spine by Means of a Probabilistic Atlas with a Special Focus on Ribs Suppression. Preliminary Results

Ruiz-España, Silvia *Univ. Politècnica de València*; Domingo, Juan *Univ. de València*; Díaz-Parra, Antonio *Univ. Politècnica de València*; Dura, Esther *Univ. de València*; D'Ocón-Alcañiz, Víctor *Univ. Politècnica de València*; Arana, Estanislao *Radiology Dept., Fundación Instituto Valenciano de Oncología*; Moratal, David* *Univ. Politècnica de València*

- 16:30-16:45 WeET7.5
A Markov Random Field Orientation Prior for Electronic Cleansing in CT Colonography
 Krishnan, Karthik* *Samsung R&D Institute*; Desai, Nasir *Samsung Electronics*
- 16:45-17:00 WeET7.6
Semi-Automated Breast Cancer Tumor Detection with Thermographic Video Imaging
 Venkataramani, Krithika* *Xerox Research Center India*; Mestha, Lalit, K. *Palo Alto Research Center - A Xerox Company*; Ramachandra, L. *Manipal Univ. Hospital*; Prasad, S. S. *Manipal Univ. Hospital*; Kumar, Vijay *Manipal Univ., Paediatric Surgery*; Raja, Priyanka J. *Xerox Research Center India*
- WeET8: 15:30-17:00 Amber 5
10.5 Body Sensor Networks for Personal Health (Oral Session)
 Co-Chair: Ramat, Stefano *Università di Pavia*
- 15:30-15:45 WeET8.1
Motion Artifact Cancellation and Outlier Rejection for Clip-Type PPG-Based Heart Rate Sensor
 Shimazaki, Takunori* *Osaka City Univ.*; Hara, Shinsuke *Osaka City Univ.*; Okuhata, Hiroyuki *Synthesis Corporation*; Nakamura, Hajime *Osaka City Univ., Graduate School of Medicine*; Kawabata, Takashi *Kansai Univ.*
- 15:45-16:00 WeET8.2
SEEQ MCT Wearable Sensor Performance Correlated to Skin Irritation and Temperature
 Engel, Jonathan* *Medtronic, Inc*; Landrum, Brett *Medtronic*; Chakravarthy, Niranjan *Corventis, Inc*; Rothwell, Dustin *Medtronic*; Chavan, Abhi *Corventis, Inc*
- 16:00-16:15 WeET8.3
Automatic Detection, Extraction and Analysis of Unrestrained Gait using a Wearable Sensor System
 Ahmadi, Amin* *Dublin City Univ.*; Richter, Chris *Sports Surgery Clinic*; O'Connor, Noel *Dublin City Univ.*; Moran, Kieran *Dublin City Univ.*
- 16:15-16:30 WeET8.4
A Programmable Low Power Current Source for Bioimpedance Measurement: Towards a Wearable Personalized Health Assistant
 Hamed, Zaid* *Royal Institute of Technology (KTH)*; Tenhunen, Hannu *KTH*; Yang, Geng *Royal Institute of Technology (KTH) Sweden*
- 16:30-16:45 WeET8.5
Design and Implementation of an Intelligent Belt System using Accelerometer
 Liu, Botong* *Peking Univ.*; Wang, Duo *Peking Univ.*; li, sha *Peking Univ.*; Nie, Xuhui *Peking Univ.*; Xu, Shan *Peking Univ.*; Jiao, Bingli *Peking Univ.*; Duan, Xiaohui *Peking Univ.*; Huang, Anpeng *Peking Univ.*
- WeET9: 15:30-17:00 Amber 6
5.4 Baroreflex/Autonomic Nervous System (Oral Session)
 Chair: Porta, Alberto *Università degli Studi di Milano*
 Co-Chair: Avolio, Alberto P *Macquarie University*
- 15:30-15:45 WeET9.1
The Effect of Fluid Overload by Saline Infusion on Heart Variability in Men during Sleep
 Vena, Daniel *Univ. of Toronto/Toronto Rehabilitation Institute*; Yadollahi, Azadeh* *Univ. of Toronto*
- 15:45-16:00 WeET9.2
Hemodynamics Changes with Acute Carotid Baroreceptor Field Stimulation Are Age-Dependent in Normotensive Rats
 Kouchaki, Zahra* *Macquarie Univ.*; Butlin, Mark *Macquarie Univ.*; Avolio, Alberto P *Macquarie Univ.*
- 16:00-16:15 WeET9.3
Cardiovascular Control Indexes in Amyotrophic Lateral Sclerosis Patients and their Relation with Clinical Markers
 De Maria, Beatrice *IRCCS Fondazione Salvatore Maugeri, Milano*; Bari, Vlasta *IRCCS Policlinico San Donato*; Marchi, Andrea* *Dept. of Electronics Information and Bioengineering, Polite*; Barbic, Franca *Dept. of Medical Biotechnologies and Translation Medicine*; Furlan, Raffaello *Dept. of Medical Biotechnologies and Translation Medicine*; Mora, Gabriele *IRCCS Fondazione Salvatore Maugeri, Milan, Italy*; Dalla Vecchia, Laura *IRCCS Fondazione Salvatore Maugeri, Milan, Italy*; Porta, Alberto *Univ. degli Studi di Milano*
- 16:15-16:30 WeET9.4
Cardioinhibitory Carotid Sinus Syndrome: A Mathematical Model
 Finucane, Ciaran* *St James's Hospital*; Kenny, Rose Anne *Trinity College Dublin*; Boyle, Gerard *St. James's Hospital*
- 16:30-16:45 WeET9.5
Evaluation of the Correlation between Cardiac and Sympathetic Baroreflex Sensitivity before Orthostatic Syncope
 Marchi, Andrea* *Dept. of Electronics Information and Bioengineering, Polite*; Bari, Vlasta *IRCCS Policlinico San Donato*; De Maria, Beatrice *IRCCS Fondazione Salvatore Maugeri, Milano*; Cerutti, Sergio *Politecnico di Milano*; Heusser, Karsten *Institute für Klinische Pharmakologie, Medizinische Hochschule Ha*; Tank, Jens *Hannover Medical School*; Jordan, Jens *Institute für Klinische Pharmakologie, Medizinische Hochschule Ha*; Barbic, Franca *Dept. of Medical Biotechnologies and Translation Medicine*; Furlan, Raffaello *Dept. of Medical Biotechnologies and Translation Medicine*; Porta, Alberto *Univ. degli Studi di Milano*
- 16:45-17:00 WeET9.6
Temporal Analysis of Cardiac Autonomic Regulation during Orthostatic Challenge by Short-Term Symbolic Dynamics
 Reulecke, Sina* *Univ. Autónoma Metropolitana*; Charleston-Villalobos, Sonia *Univ. Autónoma Metropolitana*; Voss, Andreas *Univ. of Applied Sciences Jena*; Gonzalez-Camarena, Ramon *Univ. Autónoma Metropolitana*; Gaitan-Gonzalez, Mercedes *Univ. Autónoma Metropolitana*; Gonzalez-Hermosillo, Jesus Antonio *Instituto Nacional de Cardiología*; Hernandez-Pacheco, Guadalupe *Instituto Nacional de Cardiología "Ignacio Chavez"*; Aljama-Corrales, Tomas *Univ. Autónoma Metropolitana*
- WeET10: 15:30-17:00 Amber 7
6.8 Neural Stimulation I (Oral Session)
- 15:30-15:45 WeET10.1
Gender Effect on Discrimination of Location and Frequency in Surface Electrical Stimulation
 Geng, Bo* *Aalborg Univ.*; Paramanathan, Senthooopiya A. *Aalborg Univ.*; Pedersen, Karina F. *Aalborg Univ.*; Lauridsen, Mette V. *Aalborg Univ.*; Gade, Julie *Aalborg Univ.*; Lontis, Eugen *Romulus Aalborg Univ.*; Jensen, Winnie *Center for Sensory-Motor Interaction*
- 15:45-16:00 WeET10.2
A Figure of Merit for Neural Electrical Stimulation Circuits
 Kolbl, Florian* *Univ. of Bordeaux*; Demosthenous, Andreas *Univ. College London*
- 16:00-16:15 WeET10.3
A Theoretical Framework for Studying the Electromagnetic Stimulation of Nervous Tissue
 Accoto, Dino* *Campus Bio-Medico Univ.*; Valentini, Simona *Univ. Campus Bio-Medico*; Portaccio, Iacopo *Univ. Campus Bio-Medico di Roma*; Guglielmelli, Eugenio *Campus Bio-Medico Univ.*
- 16:15-16:30 WeET10.4
Subject-Specific Optimization of Channel Currents for Multichannel Transcranial Magnetic Stimulation
 Cline, Christopher* *Univ. of Minnesota*; Johnson, Nessa *Univ. of Minnesota*; He, Bin *Univ. of Minnesota*
- 16:30-16:45 WeET10.5
A Framework for Identification of Brain Network Dynamics using a Novel Binary Noise Modulated Electrical Stimulation Pattern
 Yang, Yuxiao* *Univ. of Southern California*; Shanechi, Maryam *Univ. of Southern California*

16:45-17:00 WeET10.6
Multi-Electrode Neurostimulation System for Treatment of Cognitive Impairments
Kublanov, Vladimir* *Ural Federal Univ.*; Petrenko, Timur *Ural Federal Univ.*; Babich, Mikhail *Ural Federal Univ.*

WeET11: 15:30-17:00 Amber 8
6.9 EMG Processing and Applications (Oral Session)
Chair: Frigo, Carlo *Politecnico di Milano*
Co-Chair: Tamei, Tomoya *Nara Institute of Science and Technology*

15:30-15:45 WeET11.1
Modeling Dynamic High-DOF Finger Postures from Surface EMG using Nonlinear Synergies in Latent Space Representation
Ngeo, Jimson *Nara Institute of Science and Technology*; Tamei, Tomoya *Nara Institute of Science and Technology*; Ikeda, Kazushi *Nara Institute of Science and Technology*; Shibata, Tomohiro* *Kyushu Institute of Technology*

15:45-16:00 WeET11.2
Muscle Synergies in Children with Dystonia Capture "Healthy" Patterns Regardless the Altered Motor Performance
Lunardini, Francesca *Politecnico di Milano*; Casellato, Claudia* *Politecnico di Milano*; Bertuccio, Matteo *Univ. of Southern California*; Sanger, Terence David *Univ. of Southern California*; Pedrocchi, Alessandra *Politecnico di Milano*

16:00-16:15 WeET11.3
An Analysis of Physiological Signals as a Measure of Task Engagement in a Multi-Limb-Coordination Motor-Learning Task
Murray, Spencer* *Vanderbilt Univ.*; Goldfarb, Michael *Vanderbilt Univ.*

16:15-16:30 WeET11.4
Processing of Surface EMG through Pattern Recognition Techniques Aimed at Classifying Shoulder Joint Movements
Rivela, Diletta* *Politecnico di Milano*; Pavan, Esteban E. *Politecnico di Milano*; Scannella, Alessia *Politecnico di Milano*; Frigo, Carlo *Politecnico di Milano*; Gini, Giuseppina *Politecnico di Milano*; Belluco, Paolo *Politecnico di Milano*

16:30-16:45 WeET11.5
Analog Front-Ends Comparison in the Way of a Portable, Low-Power and Low-Cost EMG Controller based on Pattern Recognition
Mastinu, Enzo* *Chalmers - Univ. of Technology*; Ortiz-Catalan, Max *Chalmers Univ. of Technology*; Håkansson, Bo *Chalmers Univ. of Technology*

16:45-17:00 WeET11.6
Antagonist Muscle Co-Activation of Limbs in Human Infant Crawling: A Pilot Study
Xiong, Qiliang *Chongqing Univ.*; Hou, Wensheng* *Bioengineering Inst of Chongqing Univ*

WeET12: 15:30-17:00 Suite 5
10.6 Innovative Methods and IT-Tools to Support Diagnosis and Management of Type 2 Diabetes Mellitus (Invited Session)
Chair: Bellazzi, Riccardo *University of Pavia*
Co-Chair: Traver, Vicente *Institute ITACA*

15:30-15:45 WeET12.1
A Bayesian Network Analysis of the Probabilistic Relations between Risk Factors in the Predisposition to Type 2 Diabetes
Sambo, Francesco* *Univ. of Padova*; Di Camillo, Barbara *Univ. of Padova*; Franzin, Alberto *Univ. Libre de Bruxelles*; Facchinetti, Andrea *Univ. of Padova*; Hakaste, Liisa *Folkhalsan Institute of Genetics*; Kravic, Jasmina *Lund Univ. Diabetes Centre, Malmö*; Fico, Giuseppe *Technical Univ. of Madrid*; Tuomilehto, Jaakko *National Institute for Health and Welfare, Helsinki*; Groop, Leif *Lund Univ. Diabetes Centre, Malmö*; Gabriel, Rafael *Hospital Univ. La Paz, Madrid*; Tuomi, Tiinamaija *Folkhalsan Institute of Genetics*; Cobelli, Claudio *Univ. of Padova*

15:45-16:00 WeET12.2
Data Integration Technologies to Improve Clinical Decisions on T2DM Patients
Segagni, Daniele* *IRCCS Fondazione Salvatore Maugeri, Pavia*; Sacchi, Lucia *Univ. of Pavia*; Dagliati, Arianna *Univ. of Pavia, Italy*; Tibollo, Valentina *IRCCS Fondazione Salvatore Maugeri, Pavia*; Leporati, Paola *Fondazione Salvatore Maugeri*; De Cata, Pasquale *Fondazione Salvatore Maugeri*; Cerra, Carlo *ASL Pavia*; Luca, Chiovato *Fondazione Salvatore Maugeri*; Bellazzi, Riccardo *Univ. of Pavia*

16:00-16:15 WeET12.3
Diabetes Care Related Process Modeling using Process Mining Techniques. Lessons Learned in the Application of Interactive Pattern Recognition: Facing Spaghetti Effect
Fernandez-Llatas, Carlos *Univ. Politecnica de Valencia*; Martínez-Millana, Antonio *Univ. Politécnica de Valencia*; Martínez-Romero, Álvaro *Instituto ITACA*; Benedí, Jose Miguel *ITI - Univ. Politecnica de Valencia*; Traver, Vicente* *Institute ITACA*

16:15-16:30 WeET12.4
Improving Risk-Stratification of Diabetes Complications using Temporal Data Mining
Sacchi, Lucia* *Univ. of Pavia*; Dagliati, Arianna *Univ. of Pavia, Italy*; Segagni, Daniele *IRCCS Fondazione Salvatore Maugeri, Pavia*; Leporati, Paola *Fondazione Salvatore Maugeri*; Luca, Chiovato *Fondazione Salvatore Maugeri*; Bellazzi, Riccardo *Univ. of Pavia*

16:30-16:45 WeET12.5
Social Media for Empowering Patients with Diabetes
Gómez Gálvez, Pedro Javier *Digitalica Health*; Cristina Suárez-Mejías, Cristina Suárez-Mejías *Digitalica*; Fernandez-Luque, Luis* *Northern Research Institute Tromsø (Norut)*

16:45-17:00 WeET12.6
Use of an Holistic Approach for Effective Adoption of User-Centred-Design Techniques in Diabetes Disease Management: Preliminary Experiences in User Need Elicitation
Fico, Giuseppe* *Technical Univ. of Madrid*; Arredondo, María Teresa *Technical Univ. of Madrid*

WeET13: 15:30-17:00 Room T13
2.M1 Frontiers in Phase Contrast X-Ray Imaging for Biomedical Applications (Minisymposium)
Chair: Das, Mini *University of Houston*
Co-Chair: Olivo, Alessandro *University College London*

15:30-15:45 WeET13.1
X-Ray Phase-Contrast Mammography and Breast CT with Synchrotron Radiation: The Clinical Trials
Longo, Renata* *Univ. of Trieste & INFN, Dept. of Physics*

15:45-16:00 WeET13.2
Removing the Roadblocks to Clinical Translation of X-Ray Phase-Contrast Imaging using Edge-Illumination Phase Contrast
Olivo, Alessandro* *Univ. College London*

16:00-16:15 WeET13.3
Gratings-Based X-Ray Phase Contrast Imaging: A Discussion on Potential Medical Applications
Stampanoni, Marco* *Paul Scherrer Institute*

16:15-16:30 WeET13.4
Current Limitations and Obstacles for Phase Contrast CT in Clinical Practice
Raupach, Rainer *Siemens AG*; Flohr, Thomas* *Siemens Healthcare*

WeET15: 15:30-17:00 White 1
9.4 Stimulation and Monitoring Technologies (Invited Session)
Co-Chair: Mohseni, Pedram *Case Western Reserve University*

15:30-15:45 WeET15.1
An Ingestible, NIR-Fluorometric, Cancer-Screening Capsule
Georgiou, Julius* *Univ. of Cyprus*; Demosthenous, Panayiota *Univ. of Cyprus*

15:45-16:00 WeET15.2
3D-Printed Wearable Backpack Stimulator for Chronic in Vivo Aquatic Stimulation
 Tang, Wei *New Mexico State Univ.*;
 Unguez, Graciela* *New Mexico State Univ.*

16:00-16:15 WeET15.3
Pulsed Ultrasound for Enhancing Vaccine Production
 Chen, Jle* *Univ. of Alberta*

16:15-16:30 WeET15.4
Efficient Microstimulation of the Brain: A Parametric Approach
 Watson, Meghan* *Polytechnique Montreal*; Dancause, Numa
Univ. de Montreal; Sawan, Mohamad *Polytechnique Montreal*

16:30-16:45 WeET15.5
Cortical Control of Intraspinal Microstimulation: Toward a New Approach for Restoration of Function after Spinal Cord Injury
 Shahdoost, Shahab *Case Western Reserve Univ.*; Frost, Shawn
Univ. of Kansas Medical Center; Dunham, Caleb *Univ. of Kansas Medical Center*; DeJong, Stacey
Univ. of Iowa; Barbay, Scott *Univ. of Kansas Medical Center*; Nudo, Randolph
Univ. of Kansas Medical Center; Mohseni, Pedram* *Case Western Reserve Univ.*

16:45-17:00 WeET15.6
VLSI Circuits for Bidirectional Interface to Peripheral and Visceral Nerves
 Greenwald, Elliot *Johns Hopkins Univ.*;
 Thakor, Nitish* *Johns Hopkins Univ.*

WeET16: 15:30-17:00 White 2
7.3 Automated Biological Laboratories (Invited Session)
Chair: Ghafar-Zadeh, Ebrahim *York Univ.*
Co-Chair: Gosselin, Benoit *Laval University*

15:30-15:45 WeET16.1
Low-Power Adaptive Spike Detector based on a Sigma-Delta Control Loop
 Gagnon-Turcotte, Gabriel *Univ. Laval*; Sawan, Mohamad
Polytechnique Montreal; Gosselin, Benoit* *Laval Univ.*

15:45-16:00 WeET16.2
Microfluidic Platform for Neurotransmitter Sensing based on Cyclic Voltammetry and Dielectrophoresis for in Vitro Experiments
 Greener, Jesse *Univ. Laval*; Miled, Amine* *Laval Univ.*;
 Mathault, Jessy *Univ. Laval*

16:00-16:15 WeET16.3
An Automated Microphysiological Assay for Toxicity Evaluation
 Eggert, Sebastian *cellasys GmbH*; Alexander, Frank *cellasys GmbH*;
 Wiest, Joachim* *cellasys GmbH*

16:15-16:30 WeET16.4
High-Speed Event Detector for Embedded Nanopore Bio-Systems
 Huang, Yiyun *York Univ.*;
 Magierowski, Sebastian* *York Univ.*;
 Ghafar-Zadeh, Ebrahim *York Univ.*;
 Wang, Chengjie *York Univ.*

16:30-16:45 WeET16.5
Robotic Printing and Drug Testing of 384-Well Tumor Spheroids
 Ham, Stephanie *Univ. of Akron*; Thakuri, Pradip *The Univ. of Akron*;
 Tavana, Hossein* *The Univ. of Akron*

16:45-17:00 WeET16.6
Affordable Techniques for Fabricating Large Array of Functional Nanowires: From DNA to Micellar Systems
 Glazer, Piotr Jakub* *Delft Univ. of Technology*; Boukany, Pouyan
Delft Univ. of Technology

WeET17: 15:30-17:00 Space 1
1.11 Connectivity Measurements (Oral Session)
Co-Chair: Babiloni, Fabio *University of Rome*

15:30-15:45 WeET17.1
Connectivity of Epileptic Brain Regions in Wake and Sleep
 Klimes, Petr* *Institute of Scientific Instruments of the ASCR, v.v.i.*;
 Duque, Juliano *Univ. of São Paulo*; Jurak, Pavel
Inst of Scientific Instruments Academy; Halamek, Josef
Institute of Scientific Instruments; Worrell, Gregory A. *Mayo Clinic*

15:45-16:00 WeET17.2
Detecting Labor using Graph Theory on Connectivity Matrices of Uterine EMG
 Al-Omar, Sally *Univ. de Rennes 1*; Diab, Ahmad* *Univ. de technologie de Compiègne - UTC*;
 Nader, Noujoud *Sorbonne Univ., Univ. de Technologie de Compiègne*;
 Khalil, Mohamad *Lebanese Univ., Doctoral School for Sciences and Technology*;
 Karlsson, Brynjar *Reykjavik Univ.*; Marque, Catherine *Univ. of Technology of Compiègne*

16:00-16:15 WeET17.3
Comparison of Different Kalman Filter Approaches in Deriving Time Varying Connectivity from EEG Data
 Ghumare, Eshwar* *Laboratory for Cognitive Neurology, KU Leuven*;
 Schrooten, Maarten *KU Leuven - Univ. of Leuven, Laboratory for Cognitive Neuro*;
 Vandenberghe, Rik *Laboratory for Cognitive Neurology, KU Leuven*;
 Dupont, Patrick *KU Leuven*

16:15-16:30 WeET17.4
Brain Network Properties in Depressed Patients Receiving Seizure Therapy: A Graph Theoretical Analysis of Peri-Treatment Resting EEG
 Deng, Zhi-De* *Duke Univ.*;
 McClintock, Shawn *Duke Univ.*;
 Lisanby, Sarah *Duke Univ.*

16:30-16:45 WeET17.5
Comparison of Network Analysis Approaches on EEG Connectivity in Beta during Visual Short-Term Memory Binding Tasks
 Smith, Keith* *Univ. of Edinburgh*;
 Azami, Hamed *Univ. of Edinburgh*;
 Escudero, Javier *Univ. of Edinburgh*;
 Parra, Mario A *Univ. of Edinburgh*;
 Starr, John *Univ. of Edinburgh*

16:45-17:00 WeET17.6
Graph Theory in Brain-To-Brain Connectivity: A Simulation Study and an Application to an EEG Hyperscanning Experiment
 Toppi, Jlenia* *Univ. of Rome "Sapienza"*;
 Ciaramidaro, Angela *Dept. of Child and Adolescent Psychiatry, Psychosomatics, a*;
 Vogel, Pascal *Institute of Neurophysiology, Neuroscience Center, Goethe-Univ.*;
 Mattia, Donatella *Fondazione Santa Lucia IRCCS*;
 Babiloni, Fabio *Univ. of Rome*;
 Siniatchkin, Michael *Univ. of Kiel*;
 Astolfi, Laura *Univ. of Rome Sapienza*

WeET18: 15:30-17:00 Space 2
1.12 Time-Frequency Analysis of Biosignals II: Cardiorespiratory (Oral Session)
Chair: Bianchi, Anna Maria *Politecnico di Milano*
Co-Chair: Moussavi, Zahra *University of Manitoba*

15:30-15:45 WeET18.1
Can Home-Monitoring of Sleep Predict Depressive Episodes in Bipolar Patients?
 Migliorini, Matteo *Politecnico di Milano*;
 Mariani, Sara *Wyss Institute for Biologically Inspired Engineering at Harvard*;
 Bertschy, Gilles *Dept. of Psychiatry and Mental Health, Strasbourg Univ.*;
 Kosel, Markus *Service de Psychiatrie Générale Univ. de Genève*;
 Bianchi, Anna Maria* *Politecnico di Milano*

15:45-16:00 WeET18.2
An Online Algorithm for Least-Square Spectral Analysis: Applied to Time-Frequency Analysis of Heart Rate
 Zhang, Zhe* *The Univ. of Sydney*;
 Leong, Philip Heng Wai *The Univ. of Sydney*

- 16:00-16:15 WeET18.3
Dependence of Cardiac Spectrum on the Spatial Resolution of the Electrode Systems in a Realistic Model of the Canine Ventricles
 Beltrán Molina, Ferney Alberto* *Univ. ECCI*;
 Cruz Salazar, Emeterio *ECCI Univ.*;
 Requena Carrion, Jesus *Univ. Rey Juan Carlos*
- 16:15-16:30 WeET18.4
Influences of Gender and Anthropometric Features on Inspiratory Inhaler Acoustics and Peak Inspiratory Flow Rate
 Taylor, Terence E.* *Trinity College Dublin*; Holmes, Martin S. *Trinity College Dublin*; Sulaiman, Imran *Royal College of Surgeons in Ireland (RCSI)*; Costello, Richard *Royal College of Surgeons in Ireland (RCSI)*; Reilly, Richard *Trinity College Dublin*
- 16:30-16:45 WeET18.5
Upper Airway Resistance Changes from Inspiration to Expiration during Wakefulness is a Predictor of Sleep Apnea: A Pilot Study
 Soltanzadeh, Ramin* *Univ. of Manitoba*;
 Moussavi, Zahra *Univ. of Manitoba*
- 16:45-17:00 WeET18.6
Effects of Changing in the Neck Circumference during Sleep on Snoring Sound Characteristics
 Saha, Shumit* *Univ. of Manitoba*; Taheri, Mahsa *Toronto Rehabilitation Institute*; Moussavi, Zahra *Univ. of Manitoba*;
 Yadollahi, Azadeh *Univ. of Toronto*
- WeET19: 15:30-17:00 Space 3
2.9 PET and SPECT Imaging (Oral Session)
 Chair: Laine, Andrew F. *Columbia University*
 Co-Chair: Bertoldo, Alessandra *University of Padova*
- 15:30-15:45 WeET19.1
Weighted Quantification of 18F-FDG Tumor Metabolism Activity using Fuzzy-Thresholding to Predict Post-Treatment Tumor Recurrence
 Roman-Jimenez, Geoffrey* *INSERM, U1099, Rennes, F-35000, France; and with Univ. of R; Acosta, Oscar Univ. of Rennes 1*;
 Ospina, Juan David *LTSI - Univ. of Rennes 1*; Leseur, Julie *Dept. of Radiothérapie, Centre Eugène Marquis, Rennes, F-3*;
 Devillers, Anne *Dept. of Radiothérapie, Centre Eugène Marquis, Rennes, F-3*; Le Gouestre, Jonathan *Keosys Medical Imaging, Saint-Herblain, F-44815, France*; Simon, Antoine *Univ. of Rennes*; Tervé, Pierre *KeoSys*; De Crevoisier, Renaud *INSERM, U1099, Rennes, F-35000, France - Univ. de Rennes 1*,
- 15:45-16:00 WeET19.2
Non-Invasive Quantification of Brain [18F]-FDG Uptake by Combining Medical Health Records and Dynamic PET Imaging Data
 Roccia, Elisa* *Univ. of Padova*; Mikhno, Arthur *Columbia Univ.*;
 Zanderigo, Francesca *Columbia Univ.*; Angelini, Elsa *Columbia Univ.*;
 Ogden, Todd *Columbia Univ.*; Mann, J John *Columbia Univ.*;
 Laine, Andrew F. *Columbia Univ.*
- 16:00-16:15 WeET19.3
Modelling Arterial Input Functions in Positron Emission Tomography Dynamic Studies
 Tonietto, Matteo* *Univ. of Padova*; Rizzo, Gaia *Dept. of Information Engineering, Univ. of Padova*; Veronese, Mattia *Centre for Neuroimaging Sciences, IoPPN, King's College London*; Bertoldo, Alessandra *Univ. of Padova*
- 16:15-16:30 WeET19.4
Semi-Supervised Manifold Learning with Affinity Regularization for Alzheimer's Disease Identification using Positron Emission Tomography Imaging
 Lu, Shen* *Univ. of Sydney*; Xia, Yong *Northwestern Polytechnical Univ.*; Cai, Weidong *Univ. of Sydney*; Feng, Dagan *The Univ. of Sydney*
- 16:30-16:45 WeET19.5
A Statistical Method for Lung Tumor Segmentation Uncertainty in PET Images based on User Inference
 Zheng, Chaojie* *Univ. of Sydney*; Wang, Xiu Ying *The Univ. of Sydney*; Feng, Dagan *The Univ. of Sydney*
- 16:45-17:00 WeET19.6
Iterative Reconstruction for PET Scanners with Continuous Scintillators
 Iriarte Ruiz, Ana* *Univ. CEU San Pablo*; Caffarena, Gabriel *Univ. CEU San Pablo*; Fernández-López, Mariano *Univ. San Pablo CEU*; Garcia-Carmona, Rodrigo *Univ. CEU-San Pablo*; Otero, Abraham *San Pablo CEU*; Sorzano Sanchez, Carlos Oscar *National Center of BioTechnology (CSIC)*; Marabini, Roberto *UAM*
- WeET20: 15:30-17:00 Space 4
3.3 Wearable Systems I (Oral Session)
 Chair: Besio, W. G. *University of Rhode Island*
 Co-Chair: Kanoh, Shin'ichiro *Shibaura Institute of Technology*
- 15:30-15:45 WeET20.1
Performance Evaluation of Power Transmission Coils for Powering Endoscopic Wireless Capsules
 Basar, Md.Rubel *Univ. of Malay*; Ahmad, Mohd Yazed* *Univ. of Malaya*; Cho, Jongman *Inje Univ.*;
 Ibrahim, Fatimah *Univ. of Malaya*
- 15:45-16:00 WeET20.2
Development of an Eyewear to Measure Eye and Body Movements
 Kanoh, Shin'ichiro* *Shibaura Institute of Technology*; Ichi-nohe, Susumu *JIN Co., Ltd.*; Shioya, Shunsuke *JIN Co., Ltd.*; Inoue, Kazutaka *JIN Co., Ltd.*; Kawashima, Ryuta *Tohoku Univ.*
- 16:00-16:15 WeET20.3
Developing an Online Steady-State Visual Evoked Potential-Based Brain-Computer Interface System using EarEEG
 Wang, Yu-Te* *Univ. of California San Diego*; Nakanishi, Masaki *Univ. of California San Diego*; Lind Kappel, Simon *Aarhus Univ., Denmark*; Kidmose, Preben *Aarhus Univ., Denmark*; Mandic, Danilo *Imperial College*; Wang, Yijun *Univ. of California, San Diego*; Cheng, Chung-Kuan *Univ. of California, San Diego*; Jung, Tzzy-Ping *Univ. of California San Diego*
- 16:15-16:30 WeET20.4
Energy-Aware Embedded Classifier Design for Real-Time Emotion Analysis
 Padmanabhan, Manoj* *Embedded Systems Lab. (ESL), EPFL*;
 Murali, Srinivasan *SmartCardia Sàrl*; Rincón, Francisco *SmartCardia Sàrl*; Atienza, David *Ecole Polytechnique Federale de Lausanne*
- 16:30-16:45 WeET20.5
A Wireless Patch for Sleep Respiratory Disorders Applications
 Gerbelot, Rémi *CEA, LETI, MINATEC Campus*; Koenig, Anne *CEA-LETI Minatec*; Goyer, Cedric *CEA, LETI, MINATEC Campus*; Willemin, Jérôme *CEA, LETI, MINATEC Campus*; Desir, Chesner *CEA, LETI, MINATEC Campus*; Porcherot, Jean *CEA/LETI, MINATEC Campus*; Haby, Sylla Kane *CEA, LETI, MINATEC Campus*; Guillemaud, Regis *CEA Léti MINATEC*; Borel, Jean Christian *CHU Grenoble, Laboratoire du Sommeil*; Jallon, Pierre* *CEA Grenoble*
- 16:45-17:00 WeET20.6
On the Tridimensional Estimation of the Gaze Point by a Stereoscopic Wearable Eye Tracker
 Lanata', Antonio* *Univ. of Pisa*; Greco, Alberto *Univ. of Pisa*;
 Valenza, Gaetano *Univ. of Pisa-MGH-Harvard Medical School*;
 Scilingo, Enzo Pasquale *Univ. of Pisa*
- WeET25: 15:30-17:00 Silver Room
6.M3 Grand Challenges in Brain Research in Europe and in USA (Minisymposium)
 Chair: Wheeler, Bruce *University of Florida*
- 15:30-15:45 WeET25.1
Grand Challenges in Brain Research in Europe and in USA
 Cerutti, Sergio* *Politecnico di Milano*; Bonato, Paolo *Harvard Medical School*

ThAT2: 08:30-10:00 Brown 2
4.4 Models of Neural Systems and Stimulation (Oral Session)
Chair: Dokos, Socrates *University of New South Wales*
Co-Chair: Morgera, Salvatore Domenic *University of South Florida*

08:30-08:45 ThAT2.1
A Model of Electrical Stimulation of a Retinal Cell Population using a Multi-Electrode Array
 Al Abed, Amr *Univ. of New South Wales*; Lovell, Nigel H. *Univ. of New South Wales*; Suaning, Gregg *The Univ. of New South Wales*; Dokos, Socrates* *Univ. of New South Wales*

08:45-09:00 ThAT2.2
A 3D-Continuum Bidomain Model of Retinal Electrical Stimulation using an Anatomically Detailed Mesh
 Shalhaf, Farzaneh* *the Univ. of Auckland*; Du, Peng *The Univ. of Auckland*; Lovell, Nigel H. *Univ. of New South Wales*; Dokos, Socrates *Univ. of New South Wales*; Vaghefi, Ehsan *The Univ. of Auckland*

09:00-09:15 ThAT2.3
A 3-D Admittance-Level Computational Model of a Rat Hippocampus for Improving Prosthetic Design
 Gilbert, Andrew* *Univ. of Utah*; Loizos, Kyle *Univ. of Utah*; RamRakhyani, Anil *Univ. of Utah*; Hendrickson, Phillip *Univ. of Southern California*; Lazzi, Gianluca *Univ. of Utah*; Berger, Theodore *Univ. of Southern California*

09:15-09:30 ThAT2.4
Analysis of Bipolar External Excitation of Spherical Tissue by Spatially Opposed Current Source and Sink Points
 Schwartz, Benjamin *Arizona State Univ.*; Sadleir, Rosalind* *Arizona State Univ.*

09:30-09:45 ThAT2.5
External Current Application in a Bidomain Model of Active Neural Tissue
 Keim, Steven *Arizona State Univ.*; Fu, Fanrui *Arizona State*; Sadleir, Rosalind* *Arizona State Univ.*

09:45-10:00 ThAT2.6
Reactive Near Field Electromagnetic Axonal Communication Channels and Their Role in Neurodegenerative Diseases
 Morgera, Salvatore Domenic* *Univ. of South Florida*

ThAT3: 08:30-10:00 Brown 3
6.10 Brain-Computer/Machine Interface IV (Oral Session)
Chair: Millán, José del R. *Ecole Polytechnique Federale de Lausanne*
Co-Chair: Wriessnegger, Selina *Graz University of Technology*

08:30-08:45 ThAT3.1
Spatial Filter and Feature Selection Optimization based on EA for Multi-Channel EEG
 Wang, Yubo *Kyungpook National Univ.*; Mohanarangam, Krithikaa *Kyungpook National Univ.*; Mallipeddi, Rammohan* *Kyungpook National Univ.*; Veluvolu, Kalyana C. *Kyungpook National Univ.*

08:45-09:00 ThAT3.2
Effects of Feedback Latency on P300-Based Brain-Computer Interface
 Arvaneh, Mahnaz* *Trinity College Dublin*; Ward, Tomas *NUIM*; Robertson, Ian *Trinity College Dublin*

09:00-09:15 ThAT3.3
Modulation of Inter-Hemispheric Asymmetry of Motor-Related Brain Activity using Brain-Computer Interfaces
 Pereira, Michael* *Ecole Polytech. Federale de Lausanne*; Sobolewski, Aleksander *Ecole Polytech. Federale de Lausanne*; Millán, José del R. *Ecole Polytech. Federale de Lausanne*

09:15-09:30 ThAT3.4
Bring Mental Activity into Action! an Enhanced Online Co-Adaptive Brain-Computer Interface Training Protocol
 Scherer, Reinhold* *Graz Univ. of Tech.*; Faller, Josef *Graz Univ. of Tech.*; Opisso, Eloy *Guttmann Institute*; Costa, Ursula *Guttmann Rehabilitation Hospital*; Steyrl, David *Graz Univ. of Tech.*; Müller-Putz, Gernot *Graz Univ. of Tech.*

09:30-09:45 ThAT3.5
Orientation-Modulated Attention Effect on Visual Evoked Potential: Application for PIN System using Brain-Computer Interface
 Wilaiprasitporn, Theerawat* *Tokyo Institute of Technology*; Yagi, Tohru *Tokyo Institute of Technology*

09:45-10:00 ThAT3.6
Classification of Unconscious Like/Dislike Decisions: First Results towards a Novel Application for BCI Technology
 Wriessnegger, Selina* *Graz Univ. of Technology*; Hackhofer, Daniel *Graz Univ. of Technology*; Müller-Putz, Gernot *Graz Univ. of Technology*

ThAT4: 08:30-10:00 Amber 1
1.13 Data Mining for Cardiovascular Signals (Oral Session)
Chair: Korhonen, Ilkka *Tampere University of Technology*
Co-Chair: Abry, Patrice *ENS Lyon, CNRS*

08:30-08:45 ThAT4.1
Intrapartum Fetal Heart Rate Classification from Trajectory in Sparse SVM Feature Space
 Spilka, Jiri* *Czech Technical Univ. in Prague*; Frecon, Jordan *ENS Lyon, CNRS*; Leonarduzzi, Roberto Fabio *Ecole Normale Supérieure de Lyon*; Pustelnik, Nelly *Laboratoire de Physique ENS de Lyon, CNRS UMR5672, Univ. Ly.*; Abry, Patrice *ENS Lyon, CNRS*; Doret, Muriel *Hospices Civils de Lyon Univ. Lyon I*

08:45-09:00 ThAT4.2
Exploratory Analysis of Associations between Individual Lifestyles and Heart Rate Variability -Based Recovery during Sleep
 Pietilä, Julia* *Tampere Univ. of Technology*; Helander, Elina *Tampere Univ. of Technology*; Myllymäki, Tero *Univ. of Jyväskylä*; Korhonen, Ilkka *Tampere Univ. of Technology*; Jimison, Holly *Northeastern Univ.*; Pavel, Misha *Northeastern Univ.*

09:00-09:15 ThAT4.3
Time-Dependent Sleep Stage Transition Model based on Heart Rate Variability
 Takeda, Toki* *NTT Service Evolution Laboratories*; Mizuno, Osamu *NTT Service Evolution Laboratories*; Tanaka, Tomohiro *NTT Service Evolution Laboratories*

09:15-09:30 ThAT4.4
MICROST: A Mixed Approach for Heart Rate Monitoring during Intensive Physical Exercise using Wrist-Type PPG Signals
 Zhu, Shilin *Univ. of Science and Technology of China*; Tan, Ke *Univ. of Science and Technology of China*; Zhang, Xinyu *Univ. of Science and Technology of China*; Liu, Zhiqiang *Univ. of Science and Technology of China*; Liu, Bin* *Univ. of Science and Technology of China*

09:30-09:45 ThAT4.5
Psychophysiology of Disgust: ECG Noise Entropy as a Biomarker
 Bras, Susana* *Univ. de Aveiro*; Ferreira, Jacqueline *Univ. de Aveiro*; Soares, Sandra *Univ. de Aveiro*; F. Silva, Carlos *Univ. of Aveiro*

09:45-10:00 ThAT4.6
Classification of Hypoxic-Ischemic Encephalopathy using Long Term Heart Rate Variability based Features
 Ahmed, Rehan* *Univ. College Cork*; Temko, Andriy *Univ. College Cork*; Marnane, Liam *Univ. College Cork*; Boylan, Geraldine *Univ. College Cork*; Lightbody, Gordon *Univ. College Cork*

ThAT5: 08:30-10:00 Amber 2
1.14 Signal Processing in Physiological Systems VII: Metabolic System and Diabetes (Oral Session)
Chair: Cobelli, Claudio *University of Padova*
Co-Chair: Karmakar, Chandan *Deakin University*

08:30-08:45 ThAT5.1
Accuracy of Devices for Self-Monitoring of Blood Glucose: A Stochastic Error Model
 Vettoretti, Martina* *Univ. of Padova*; Facchinetti, Andrea *Univ. of Padova*; Sparacino, Giovanni *Univ. of Padova*; Cobelli, Claudio *Univ. of Padova*

- 08:45-09:00 ThAt5.2
Patient Decision-Making of CGM Sensor Driven Insulin Therapies in Type 1 Diabetes: in Silico Assessment
 Vettoretti, Martina* *Univ. of Padova*; Facchinetti, Andrea *Univ. of Padova*; Sparacino, Giovanni *Univ. of Padova*; Cobelli, Claudio *Univ. of Padova*
- 09:00-09:15 ThAt5.3
Multi-Lag HRV Analysis Discriminates Disease Progression of Post-Infarct People with No Diabetes versus Diabetes
 Karmakar, Chandan* *Deakin Univ.*; Jelinek, Herbert Franz *Charles Sturt Univ.*; Khandoker, Ahsan Habib *Khalifa Univ. of Science, Tech. and Research*; Tulppo, Mikko Verve; Mäkikallio, Timo *Univ. of Oulu*; Kiviniemi, Antti Verve; Huikuri, Heikki *Univ. of Oulu*; Palaniswami, Marimuthu *The Univ. of Melbourne*
- 09:15-09:30 ThAt5.4
Assessment of Beta Cell Function and Insulin Secretion in Subjects that Underwent Renal Transplantation
 Tura, Andrea* *CNR*; Hecking, Manfred *Clinical Division of Nephrology, Medical Univ. of Vienna*; Wolzt, Michael *Clinical Pharmacology, Medical Univ. of Vienna*; Saemann, Marcus D. *Clinical Division of Nephrology, Medical Univ. of Vienna*; Pacini, Giovanni *CNR*
- 09:30-09:45 ThAt5.5
Decrease of EEG Coherence during Hypoglycemia in Type 1 Diabetic Subjects
 Rubega, Maria* *Univ. of Padova*; Sparacino, Giovanni *Univ. of Padova*; Sejling, Anne Sophie *Univ. of Southern Denmark*; Juhl, Claus B *Hyposafe*; Cobelli, Claudio *Univ. of Padova*
- 09:45-10:00 ThAt5.6
Improving the Prediction Performance of PLSR using RReliefF and FSD for the Quantitative Analysis of Glucose in Near Infrared Spectra
 Patchava, Krishna Chaitanya* *The Univ. of Sheffield*; Benaissa, Mohammed *The Univ. of Sheffield*; Behairy, Hatim King *Abdulaziz City for Science and Technology*
- ThAt6: 08:30-10:00 Amber 3
2.10 Multi Modality Imaging (Oral Session)
Chair: Leonhardt, Steffen *RWTH Aachen University*
- 08:30-08:45 ThAt6.1
Detection and Analysis of Temperature-Sensitive Dermal Blood Perfusion Dynamics and Distribution by a Hybrid Camera System
 Blanik, Nikolai* *RWTH Aachen Univ.*; Paul, Michael *RWTH Aachen Univ.*; Blazek, Vladimir *Philips Chair for Medical Information Technology, RWTH Aachen Un*; Leonhardt, Steffen *RWTH Aachen Univ.*
- 08:45-09:00 ThAt6.2
Macrophage with Gold Nanorod Visualized by Optical-Resolution and Acoustic-Resolution Photoacoustic Microscopes
 Yamazaki, Rena *Tohoku Univ.*; Ogasawara, Koetsu *Tohoku Univ.*; Fujiwara, Mitsuhiro *Okusonic Corp.*; Kobayashi, Kazuto *Honda Electronics Co., Ltd.*; Saijo, Yoshifumi* *Tohoku Univ.*
- 09:00-09:15 ThAt6.3
Multi-Modal Data Fusion for Cardiac Resynchronization Therapy Planning and Assistance
 Bruge, Sophie* *LTSI*; Simon, Antoine *Univ. of Rennes*; Lederlin, Mathieu *CHU Rennes, Univ. of Rennes1, LTSI*; Betancur, Julián *Univ. de Rennes 1*; Hernández, Alfredo I *Univ. of Rennes 1 and INSERM U1099*; Donal, Erwan *INSERM U642 LTSI*; Leclercq, Christophe *CHU Rennes, INSERM U642, LTSI, Univ. of Rennes 1*; Garreau, Mireille *INSERM, U642, Univ. de Rennes 1*
- 09:15-09:30 ThAt6.4
Combining 3D Models with 2D Infrared Images for Medical Applications
 Abreu de Souza, Mauren* *Federal Univ. of Technology (UTFPR)*; Krefer, Andriy G. *Federal Univ. of Technology - Paraná*; Borba, Gustavo Benvenuto *Federal Univ. of Technology - Paraná*; Mezzadri Centeno, Tania *Graduate School on Electrical Engineering (CPGEI), Federal Univ.*; Gamba, Humberto *Federal Univ of Technology UTFPR- C.N.P.J.*
- 09:30-09:45 ThAt6.5
Prostate Whole-Mount Histology Reconstruction and Registration to MRI for Correlating In-Vivo Observations with Biological Findings
 Commandeur, Frédéric* *Univ. de Rennes 1, LTSI, Rennes, F-35000, France / INSERM*; Acosta, Oscar *Univ. of Rennes 1*; Simon, Antoine *Univ. of Rennes*; Mathieu, Romain *Dept. of Urology, CHU Pontchaillou, Rennes, F-35000, France*; Fautrel, Alain *H2P2, Laboratoire d'Anatomie Pathologique, Rennes, France*; Gnep, Khemara *Dept. de Radiothérapie, Centre Eugène Marquis, Rennes, Fra*; Haigron, Pascal *Univ. of Rennes 1*; De Crevoisier, Renaud *INSERM, U1099, Rennes, F-35000, France - Univ. de Rennes 1,*
- ThAt7: 08:30-10:00 Amber 4
2.11 Image Segmentation II (Oral Session)
Chair: Baselli, Giuseppe *Politecnico di Milano*
Co-Chair: Xie, Xianghua *Swansea University*
- 08:30-08:45 ThAt7.1
Automatic Segmentation of Lymph Vessel Wall using Optimal Surface Graph Cut and Hidden Markov Models
 Jones, Jonathan-Lee *Swansea Univ.*; Essa, Ehab *Swansea Univ.*; Xie, Xianghua* *Swansea Univ.*
- 08:45-09:00 ThAt7.2
A Custom Grow-Cut based Scheme for 2D-Gel Image Segmentation
 Kostopoulou, Eirini* *National and Kapodistrian Univ. of Athens*; Katsigiannis, Stamos *National and Kapodistrian Univ. of Athens*; Maroulis, Dimitris *Univ. of Athens, Dep. of Informatics and Telecommunications*
- 09:00-09:15 ThAt7.3
Unsupervised Detection of Liver Lesions in CT Images
 Afifi, Ahmed* *Chiba Univ.*; Nakaguchi, Toshiya *Chiba Univ.*
- 09:15-09:30 ThAt7.4
A Unified Framework for Automatic Wound Segmentation and Analysis with Deep Convolutional Neural Networks
 Wang, Changhan *Univ. of Michigan, Ann Arbor*; Yan, Xinchun *Univ. of Michigan, Ann Arbor*; Smith, Max *Univ. of Michigan - Ann Arbor*; Kochhar, Kanika *Univ. of Michigan*; Rubin, Marcie *NYU Medical Center*; Warren, Stephen M *NYU Medical Center*; Wrobel, James *Univ. of Michigan*; Lee, Honglak* *Univ. of Michigan*
- 09:30-09:45 ThAt7.5
3-Dimensional Throat Region Segmentation from MRI Data based on Fourier Interpolation and 3-Dimensional Level Set Methods
 Campbell, Sean *Univ. of Strathclyde*; Doshi, Trushali* *Univ. of Strathclyde*; Soraghan, John J *Univ. of Strathclyde*; Petropoulakis, Lykourgos *Univ. of Strathclyde*; Di Caterina, Gaetano *Univ. of Strathclyde*; Grose, Derek *Beatson West of Scotland Cancer Centre*; MacKenzie, Kenneth *Glasgow Royal Infirmary*
- 09:45-10:00 ThAt7.6
RFA-Cut: Semi-Automatic Segmentation of Radiofrequency Ablation Zones via Optimal S-T-Cuts
 Egger, Jan* *Graz Univ. of Technology*; Busse, Harald *Leipzig Univ. Hospital*; Brandmaier, Philipp *Leipzig Univ. Hospital*; Seider, Daniel *Leipzig Univ. Hospital*; Gawlitza, Matthias *Leipzig Univ. Hospital*; Strocka, Steffen *Leipzig Univ. Hospital*; Voglreiter, Philip *Graz Univ. of Technology*; Dokter, Mark *Graz Univ. of Technology*; Hofmann, Michael *Graz Univ. of Technology*; Kainz, Bernhard *Imperial College London*; Chen, Xiaojun *Shanghai Jiao Tong Univ.*; Hann, Alexander *Katharinen Hospital Stuttgart*; Boechat, Pedro *Graz Univ. of Technology*; Yu, Wei *Graz Univ. of Technology*; Freisleben, Bernd *Univ. of Marburg*; Alhonnoro, Tuomas *Aalto Univ.*; Pollari, Mika *Aalto Univ.*; Moche, Michael *Leipzig Univ. Hospital*; Schmalstieg, Dieter *Graz Univ. of Technology*

ThAT8: 08:30-10:00 Amber 5
8.4 Modeling and Simulation in Musculoskeletal Biomechanics
 (Oral Session)
Chair: Carmichael, Marc Garry *University of Technology, Sydney*
Co-Chair: Monaco, Vito *Scuola Superiore Sant'Anna, Pisa*

08:30-08:45 ThAT8.1
A Finite Element Model of Tactile Flow for Softness Perception
 Battaglia, Edoardo* *Univ. of Pisa - Research Center E. Piaggio*;
 Bianchi, Matteo *Univ. of Pisa*; D'Angelo, Maria Laura *Dept. of Advanced Robotics, Istituto Italiano di Tecnologia*; D'Imperio, Mariapaola *Dept. of Advanced Robotics, Istituto Italiano di Tecnologia*; Cannella, Ferdinando *Istituto Italiano di Tecnologia*; Scilingo, Enzo Pasquale *Univ. of Pisa*; Bicchi, Antonio *Univ. of Pisa*

08:45-09:00 ThAT8.2
Concurrent Multibody and Finite Element Analysis of the Lower-Limb during Amputee Running
 Rigney, Stacey Mary *Univ. of New South Wales*; Simmons, Anne *Univ. of New South Wales*; Kark, Lauren* *Graduate School of Biomedical Engineering*,

09:00-09:15 ThAT8.3
Upper Limb Strength Estimation of Physically Impaired Persons using a Musculoskeletal Model: A Sensitivity Analysis
 Carmichael, Marc Garry* *Univ. of Technology, Sydney*;
 Liu, Dikai *Univ. of Technology, Sydney*

09:15-09:30 ThAT8.4
Forward Dynamics Simulation of Human Figures on Assistive Devices using Geometric Skin Deformation Model
 Yoshiyasu, Yusuke* *AIST*; Ayusawa, Ko *National Institute of Advanced Industrial Science and Technology*; Yoshida, Eiichi *National Institute of Advanced Industrial Science and Technology*; Matsumoto, Yoshio *Advanced Industrial Science and Technology*; Endo, Yui *National Institute of Advanced Industrial Science and Technology*

09:30-09:45 ThAT8.5
Bipedal Spring-Damper-Mass Model Reproduces External Mechanical Power of Human Walking
 Etenzi, Ettore* *Scuola Superiore S.Anna*; Monaco, Vito *Scuola Superiore Sant'Anna, Pisa*

09:45-10:00 ThAT8.6
Optimizing Porous Lattice Structures for Orthopaedic Implants
 Rodgers, Geoffrey W* *Univ. of Canterbury*; Van Houten, Elijah *Univ. de Sherbrooke*; Bianco, Rohan *Univ. of Canterbury*; Besset, Romain *Univ. of Canterbury*; Woodfield, Tim *Univ. of Otago*

ThAT9: 08:30-10:00 Amber 6
8.5 Power Prosthetics – Upper Limb (Oral Session)
Chair: Bertos, Georgios *National Technical University of Athens*

08:30-08:45 ThAT9.1
Feasibility of a Biomechatronic EPP Upper Limb Prosthesis Controller
 Moutopoulou, Efi *National Technical Univ. of Athens*; Bertos, Georgios* *National Technical Univ. of Athens*; Papadopoulos, Evangelos *National Technical Univ. of Athens*; Mablekos-Alexiou, Anestis *National Technical Univ. of Athens*

08:45-09:00 ThAT9.2
Design and Characterization of a Powered Elbow Prosthesis
 Bennett, Daniel* *Vanderbilt Univ.*; Goldfarb, Michael *Vanderbilt Univ.*; Mitchell, Jason *Vanderbilt Univ.*

09:00-09:15 ThAT9.3
Exploiting Arm Posture Synergies in Activities of Daily Living to Control the Wrist Rotation in Upper Limb Prostheses: A Feasibility Study
 Montagnani, Federico* *Scuola Superiore Sant'Anna*; Controzzi, Marco *Scuola Superiore Sant'Anna*; Cipriani, Christian *Scuola Superiore Sant'Anna*

09:15-09:30 ThAT9.4
Pinch-Force-Magnification Mechanism of Low Degree of Freedom EMG Prosthetic Hand for Children
 Ye, Hesong* *The Univ. of Electro- Communications*; Sakoda, Shintaro *The Univ. of Electro-Communications*; Jiang, Yinlai *The Univ. of Electro-Communications*; Morishita, Soichiro *Univ. of Electro-Communications*; Yokoi, Hiroshi *Univ. of Tokyo*

09:30-09:45 ThAT9.5
Rehand: Realistic Electric Prosthetic Hand Created with a 3D Printer
 Yoshikawa, Masahiro* *NAIST*; Sato, Ryo *NAIST*; Higashihara, Takanori *Takamatsu Prosthetic & Orthotic MFG. LTD.*; Ogasawara, Tsukasa *Nara Institute of Science and Technology*; Kawashima, Noritaka *Research Institute, National Rehabilitation Center for Persons wi*

09:45-10:00 ThAT9.6
Design and Analysis of an Underactuated Anthropomorphic Finger for Upper Limb Prosthetics
 Omarkulov, Nurdos *Nazarbayev Univ.*; Telegenov, Kuat *Nazarbayev Univ.*; Zeinullin, Maralbek *Nazarbayev Univ.*; Begalinova, Ainur *Nazarbayev Univ.*; Shintemirov, Almas* *Nazarbayev Univ.*

ThAT10: 08:30-10:00 Amber 7
6.11 Rehabilitation I (Oral Session)
Chair: Dhaher, Yasin *Northwestern University*
Co-Chair: Lan, Ning *Shanghai Jiao Tong University*

08:30-08:45 ThAT10.1
Linking Wheelchair Kinetics to Glenohumeral Joint Demand during Everyday Accessibility Activities
 Holloway, Catherine* *Univ. College London*; Symonds, Andrew *Univ. College London*; Suzuki, Tatsuto *Univ. College London*; Angela, Gall *Royal National Orthopaedic Hospital*; Peter, Smitham *Univ. College london*; Taylor, Steve *Univ. College London*

08:45-09:00 ThAT10.2
Reliability of Phantom Pain Relief in Neurorehabilitation using a Multimodal Virtual Reality System
 Sano, Yuko* *Univ. of Tokyo*; Ichinose, Akimichi *The Univ. of Tokyo*; Wake, Naoki *Graduate School of Information Science and Technology, Univ.*; Osumi, Michihiro *Kio Univ.*; Sumitani, Masahiko *Univ. of Tokyo*; Kumagaya, Shin-ichiro *Univ. of Tokyo*; Kuniyoshi, Yasuo *Univ. of Tokyo*

09:00-09:15 ThAT10.3
Multivariate Outcomes in a Three Week Bimanual Self-Telerehabilitation with Error Augmentation Post-Stroke
 Abdel Majeed, Yazan *Univ. of Illinois at Chicago*; Abdollahi, Farnaz *Rehabilitation Institute of Chicago*; Patton, James (Jim)* *Rehab Institute of Chicago & U. of Illinois at Chicago*

09:15-09:30 ThAT10.4
A Sensory Feedback System for Prosthetic Hand based on Evoked Tactile Sensation
 Liu, Xiaoxuan *Shanghai Jiao Tong Univ.*; Chai, Guohong *Shanghai Jiao Tong Univ.*; Qu, Hongen *MED-X Research Institute of Shanghai Jiao Tong Univ.*; Lan, Ning* *Shanghai Jiao Tong Univ.*

09:30-09:45 ThAT10.5
Quantifying Facial Paralysis using the Kinect V2
 Gaber, Amira* *Cairo Univ.*; Taher, Mona *Cairo Univ.*; Abdel Wahed, Manal *Cairo Univ.*

09:45-10:00 ThAT10.6
Tuning of Robotic Therapy Controllers for Stroke Gait: Using Isometrically Constrained EMG Modular Structures
 Tan, Andrew* *Northwestern Univ.*; Dhaher, Yasin *Northwestern Univ.*

ThAT11: 08:30-10:00 6.12 Brain Physiology and Modeling I (Oral Session) Chair: Berger, Theodore <i>University of Southern California</i> Co-Chair: Pedrocchi, Alessandra <i>Politecnico di Milano</i>	Amber 8	08:45-09:00 A Data-Driven Feature Extraction Framework for Predicting the Severity of Condition for Congestive Heart Failure Patients Sideris, Costas* <i>Univ. of California, Los Angeles</i> ; Alshurafa, Nabil <i>Univ. of California, Los Angeles</i> ; Pourhomayoun, Mohammad <i>Univ. of California, Los Angeles</i> ; Shahmohammadi, Farhad <i>Univ. of California, Los Angeles</i> ; Samy, Lauren <i>Univ. of California, Los Angeles</i> ; Sarrafzadeh, Majid <i>Univ. of California Los Angeles</i>	ThAT12.2
08:30-08:45 Reconstruction of Neural Network Topology using Spike Train Data: Small-World Features of Hippocampal Network She, Qi <i>City Univ. of Hong Kong</i> ; So, Ka Yan <i>City Univ. of Hong Kong</i> ; Chan, Rosa H. M.* <i>City Univ. of Hong Kong</i>	ThAT11.1	09:00-09:15 Expert Knowledge Integration in the Data Mining Process with Application to Cardiovascular Risk Assessment Tavares, Miguel <i>CISUC - Univ. of Coimbra</i> ; Paredes, Simao <i>Instituto Politécnico de Coimbra</i> ; Rocha, Teresa <i>Inst Superior de Eng de Coimbra</i> ; de Carvalho, Paulo <i>Univ. of Coimbra - NIF</i> ; Henriques, Jorge* <i>Univ. of Coimbra - NIF</i> ; Morais, João <i>Hospital de Santo André, Leiria</i> ; Ramos, João Pedro <i>Univ. of Coimbra</i> ; Mendes, Diana <i>Univ. de Coimbra</i>	ThAT12.3
08:45-09:00 Characteristics of the Neuronal Firing Patterns in the Subthalamic Nucleus with Graded Dopaminergic Cell Loss in the Nigrostriatal Pathway Park, Sunghee* <i>Korea Institute of Science and Technology</i> ; Song, Kang-II <i>Korea Institute of Science and Technology</i> ; Suh, Jun-Kyo <i>Korea Institute of Science and Technology</i> ; Youn, Inchan <i>Korea Institute of Science and Technology</i>	ThAT11.2	09:15-09:30 Prediction of Health Outcomes using Big (Health) Data Arandjelovic, Ognjen* <i>Univ. of St Andrews</i>	ThAT12.4
09:00-09:15 Healthy and Pathological Cerebellar Spiking Neural Networks in Vestibulo-Ocular Reflex Antonietti, Alberto <i>Politecnico di Milano</i> ; Casellato, Claudia* <i>Politecnico di Milano</i> ; Geminiani, Alice <i>Politecnico di Milano</i> ; D'Angelo, Egidio <i>Univ. of Pavia</i> ; Pedrocchi, Alessandra <i>Politecnico di Milano</i>	ThAT11.3	09:30-09:45 A Reusable Ontology for Primitive and Complex HL7 FHIR Data Types Beredimas, Nikolaos <i>Aristotle Univ. of Thessaloniki</i> ; Kilintzis, Vassilis* <i>Aristotle Univ. of Thessaloniki</i> ; Chouvarda, Ioanna <i>Aristotle Univ.</i> ; Maglaveras, Nikolaos <i>Aristotle Univ. of Thessaloniki</i>	ThAT12.5
09:15-09:30 Analysis of EEG Variables to Measure the Affective Dimensions of Arousal and Valence Related to the Vision of Emotional Pictures Vecchiato, Giovanni <i>Univ. of Rome Sapienza</i> ; Gaeta, Giuliano <i>Univ. of Nottingham</i> ; Susac, Ana <i>Univ. of Zageb</i> ; Supek, Selma <i>Univ. of Zagreb</i> ; Babiloni, Fabio* <i>Univ. of Rome</i>	ThAT11.4	09:45-10:00 An Automatic Method for the Enrichment of DICOM Metadata using Biomedical Ontologies Pérez, Wilson <i>Univ. de Cuenca</i> ; Tello, Andrés <i>Univ. de Cuenca</i> ; Saquicela, Victor <i>Univ. de Cuenca</i> ; Vidal, Maria-Esther <i>Univ. Simón Bolívar</i> ; La Cruz, Alexandra* <i>Simon Bolivar Univ.</i>	ThAT12.6
09:30-09:45 Higher Visual Functions in the Upper and Lower Visual Fields: A Pilot Study in Healthy Subjects Zito, Giuseppe Angelo <i>Gerontechnology and Rehabilitation Group, Univ. of Bern, Be</i> ; Mürri, René <i>Gerontechnology and Rehabilitation Group, Univ. Hospital of</i> ; Mosimann, Urs Peter <i>Gerontechnology and Rehabilitation Group, Univ. Hospital of</i> ; Nyffeler, Thomas <i>Neurology and Neurorehabilitation Center, Luzerner Kantonsspital</i> ; Nef, Tobias* <i>Gerontechnology and Rehabilitation, ARTORG Center for Biomedical</i>	ThAT11.5	ThAT15: 08:30-10:00 9.5 Tissue-Heating Therapeutic Technologies (Oral Session) Chair: Wenger, Cornelia <i>Faculdade de Ciências, Univ. de Lisboa</i> Co-Chair: Pearce, John Anthony <i>University of Texas at Austin</i>	White 1
09:45-10:00 Estimation of a Large-Scale Generalized Volterra Model for Neural Ensembles with Group Lasso and Local Coordinate Descent Robinson, Brian* <i>Univ. of Southern California</i> ; Song, Dong <i>Univ. of Southern California</i> ; Berger, Theodore <i>Univ. of Southern California</i>	ThAT11.6	08:30-08:45 Modeling Tumor Treating Fields (TTFields) Application within a Realistic Human Head Model Wenger, Cornelia* <i>Faculdade de Ciências, Univ. de Lisboa</i> ; Salvador, Ricardo <i>Univ. of Lisbon</i> ; Basser, Peter <i>NIH</i> ; Miranda, Pedro <i>Faculty of Science, Univ. of Lisbon</i>	ThAT15.1
ThAT12: 08:30-10:00 10.7 Knowledge Discovery and Management (Oral Session) Chair: Doug, Fridsma <i>AMIA - Informatics Prof.. Leading the Way</i> Co-Chair: Bellazzi, Riccardo <i>University of Pavia</i>	Suite 5	08:45-09:00 FEM Numerical Model Study of Electrosurgical Dispersive Electrode Design Parameters Pearce, John Anthony* <i>Univ. of Texas at Austin</i>	ThAT15.2
08:30-08:45 Early Detection of Heart Failure with Varying Prediction Windows by Structured and Unstructured Data in Electronic Health Records Wang, Yajuan* <i>IBM T.J. Watson Research Center</i> ; Ng, Kenney <i>IBM T.J. Watson Research Center</i> ; Byrd, Roy <i>IBM T.J. Watson Research Center</i> ; Hu, Jianying <i>IBM T.J. Watson Research Center</i> ; Ebadollahi, Shahram <i>IBM T.J. Watson Research Center</i> ; Daar, Zahra <i>Geisinger Health System</i> ; deFilippi, Christopher <i>Univ. of Maryland School of Medicine</i> ; Steinhubl, Steven <i>Scripps Health</i> ; Stewart, Walter <i>Sutter Health</i>	ThAT12.1	09:00-09:15 Internal Temperature Increase during Photothermal Tumour Ablation in Mice using Gold Nanorods Mooney, Rachael <i>City of Hope Medical Center</i> ; Schena, Emiliano* <i>Univ. of Rome Campus Bio-Medico</i> ; Aboody, Karen S <i>City of Hope Medical Center</i> ; Berlin, Jacob M <i>City of Hope Medical Center</i> ; Zhumkhawala, Ali <i>City of Hope Medical Center</i>	ThAT15.3
		09:15-09:30 Multi-Pulse Laser Ablation Modeling with Applications to Automated Zona Removal Wong, Christopher Yee* <i>Univ. of Toronto</i> ; Mills, James <i>Univ. of Toronto</i>	ThAT15.4
		09:30-09:45 Robotized High Intensity Focused Ultrasound (HIFU) System for Treatment of Mobile Organs using Motion Tracking by Ultrasound Imaging: An in Vitro Study Chanel, Laure-Anaïs* <i>Univ. de Strasbourg-CNRS</i> ; Nageotte, Florent <i>Univ. of Strasbourg</i> ; Vappou, Jonathan <i>ICube laboratory</i> ; Luo, Jianwen <i>Tsinghua Univ.</i> ; Cuvillon, Loic <i>Univ. of Strasbourg</i> ; de Mathelin, Michel <i>Univ. of Strasbourg</i>	ThAT15.5

09:45-10:00	ThAT15.6	Non-Invasive Measurement of the Temperature Rise in Tissue Surrounding a Kidney Stone Subjected to Ultrasonic Propulsion Oweis, Ghanem F.* <i>American Univ. of Beirut</i> ; Dunmire, Barbrina <i>Center for Industrial and Medical Ultrasound, Applied Physics La</i> ; Cunitz, Bryan <i>Center for Industrial and Medical Ultrasound, Applied Physics La</i> ; Bailey, Michael <i>Center for Industrial and Medical Ultrasound, Applied Physics La</i>	09:00-09:15	ThAT17.3	Convolutional Neural Networks for Patient-Specific ECG Classification Kiranyaz, Serkan* <i>Qatar Univ.</i> ; Ince, Turker <i>Izmir Univ. of Economics</i> ; Gabbouj, Moncef <i>Tampere Univ. of Technology</i> ; Hamila, Ridha <i>Qatar Univ.</i>
ThAT16: 08:30-10:00	White 2	7.4 Cell and Molecular Biotechnology I (Oral Session) Chair: Ruggiero, Carmelina <i>University of Genova</i>	09:15-09:30	ThAT17.4	Prediction of Switching Time between Movement Preparation and Execution by Neural Activity in Monkey Premotor Cortex Li, Hongbao <i>Zhejiang Univ.</i> ; Liao, Yuxi <i>Zhejiang Univ.</i> ; Wang, Yiwen* <i>Zhejiang Univ.</i> ; Zhang, Qiaosheng <i>Zhejiang Univ.</i> ; Zhang, Shaomin <i>Zhejiang Univ.</i> ; Zheng, Xiaoxiang <i>Zhejiang Univ.</i>
08:30-08:45	ThAT16.1	Peroxidated Olive Oil Nanoemulsion for Cancer Targeted Therapy Dellacasa, Elena <i>Univ. of Genoa</i> ; Pastorino, Laura <i>Univ. of Genoa</i> ; Scanarotti, Chiara <i>Univ. of Genoa</i> ; Vernazza, Stefania <i>Univ. of Genoa</i> ; Bassi, Anna Maria <i>Univ. of Genoa</i> ; Rolandi, Ranieri <i>Univ. of Genoa</i> ; Ruggiero, Carmelina* <i>Univ. of Genoa</i>	09:30-09:45	ThAT17.5	Towards Fully Automated Closed-Loop Deep Brain Stimulation in Parkinson's Disease Patients: A LAMSTAR-Based Tremor Predictor Khobragade, Nivedita* <i>Univ. of Illinois at Chicago</i> ; Tuninetti, Daniela <i>Univ. of Illinois at Chicago</i> ; Graupe, Daniel <i>Univ. of Illinois at Chicago</i>
08:45-09:00	ThAT16.2	Modeling and Simulation of Platelet Reaction and Diffusion towards an Electro-Stimulating Dental Implant Delenda, Bachir* <i>Univ. of Rostock, Faculty of Computer Science and Electrical</i> ; Bader, Rainer <i>Univ. Medicine of Rostock, Dept. of Orthopaedics</i> ; van Rienen, Ursula <i>Univ. of Rostock</i>	09:45-10:00	ThAT17.6	On the use of Convolutional Neural Networks and Augmented CSP Features for Multi-Class Motor Imagery of EEG Signals Classification Yang, Huijuan* <i>Institute for Infocomm Research, Agency for Science, Technology and Innovation</i> ; Sakhavi, Siavash <i>Sharif Univ. of Technology</i> ; Ang, Kai Keng <i>Institute for Infocomm Research</i> ; Guan, Cuntai <i>Institute for Infocomm Research</i>
09:00-09:15	ThAT16.3	A Lumped-Parameter Approach for Designing a Novel Pulsatile Bioreactor for Ex-Vivo Studies of Human Saphenous Vein Remodeling Piola, Marco <i>Politecnico di Milano</i> ; Soncini, Monica* <i>Politecnico di Milano</i> ; Pesce, Maurizio <i>Centro Cardiologico Monzino</i> ; Fiore, Gianfranco <i>Politecnico di Milano</i>	ThAT18: 08:30-10:00	Space 2	1.16 Signal Processing in Physiological Systems III: Functional Neuroimaging (Oral Session)
09:15-09:30	ThAT16.4	In-Vitro Assessment of Jurkat T-Cells Response to 1966 MHz Electromagnetic Fields in a GTEM Cell Moraitis, Nektarios* <i>National Technical Univ. of Athens</i> ; Christopoulou, Maria <i>National Technical Univ. of Athens</i> ; Nikita, Konstantina <i>National Technical Univ. of Athens</i> ; Voulgaridou, Georgia-Persephoni <i>Democritus Univ. of Thrace</i> ; Anestopoulos, Ioannis <i>Democritus Univ. of Thrace</i> ; Panagiotidis, Mihalis <i>Heriot Watt Univ.</i> ; Pappa, Aglaia <i>Democritus Univ. of Thrace</i>	08:30-08:45	ThAT18.1	Functional Mesh Model with Temporal Measurements for Brain Decoding Onal, Itir* <i>Middle East Technical Univ.</i> ; Ozay, Mete <i>Middle East Technical Univ.</i> ; Yarman Vural, Fatos <i>Middle East Technical Univ.</i>
09:30-09:45	ThAT16.5	Chitosan Solutions as Injectable Systems for Dermal Filler Applications: Rheological Characterization and Biological Evidence Halimi, Céilia* <i>CYTOSIAL Biomedic</i> ; Montembault, Alexandra <i>Ingénierie des Matériaux Polymères, Univ. Claude Bernard Ly</i> ; Guerry, Alexandre <i>CYTOSIAL Biomedic</i> ; Delair, Thierry <i>Ingénierie des Matériaux Polymères, Univ. Claude Bernard Ly</i> ; Viguier, Eric <i>ICE, Vetagro Sup</i> ; Fulchiron, René <i>Ingénierie des Matériaux Polymères, Univ. Claude Bernard Ly</i> ; David, Laurent <i>Ingénierie des Matériaux Polymères, Univ. Claude Bernard Ly</i>	08:45-09:00	ThAT18.2	Multi-Model based Classification of Schizophrenia Patients Cetin, Mustafa S. <i>Univ. of New Mexico, The Mind Research Network, Albuquerque</i> ; Houck, Jon M. <i>Dept. of Psychology, Univ. of New Mexico</i> ; Vergara, Victor Manuel <i>The Mind Research Network</i> ; Miller, Robyn <i>The Mind Research Network</i> ; Calhoun, Vince* <i>The Mind Research Network/Univ. of New Mexico</i>
09:45-10:00	ThAT16.6	Producing 3D Neuronal Networks in Hydrogels for Living Bionic Device Interfaces Aregueta-Robles, Ulises Alejandro* <i>Univ. of New South Wales</i> ; Lim, Khoon S. <i>Univ. of New South Wales</i> ; Martens, Penny <i>Univ. of New South Wales</i> ; Lovell, Nigel H. <i>Univ. of New South Wales</i> ; Poole-Warren, Laura A. <i>Univ. of New South Wales</i> ; Green, Rylie A. <i>Univ. of New South Wales</i>	09:00-09:15	ThAT18.3	Joint Source Separation of Simultaneous EEG-fMRI Recording in Two Experimental Conditions using Common Spatial Patterns Tan, Ao* <i>The Univ. of Hong Kong</i> ; Fu, Zening <i>Univ. of Hong Kong</i> ; Tu, Yiheng <i>The Univ. of Hong Kong</i> ; Hung, Y.S. <i>The Univ. of Hong Kong</i> ; Zhang, Zhiguo <i>Nanyang Technological Univ.</i>
ThAT17: 08:30-10:00	Space 1	1.15 Neural Networks (Oral Session) Co-Chair: Unsworth, Charles Peter <i>University of Auckland</i>	09:15-09:30	ThAT18.4	Spatiotemporal Analysis of the Appearance of Gamma-Band Microstates in Resting State MEG Kelsey, Matthew* <i>Washington Univ. School of Medicine</i> ; Prior, Fred <i>Washington Univ. School of Medicine</i> ; Larson-Prior, Linda <i>Washington Univ. in St. Louis</i>
08:45-09:00	ThAT17.2	Knee Motion Pattern Classification from Trunk Muscle based Onsemg Signals López Delis, Alberto <i>Center of Medical Biophysics</i> ; Delisle Rodríguez, Denis* <i>Centro de Biofísica Médica, Univ. de Oriente, Santiago de C</i> ; Villa Parra, Ana Cecilia <i>Univ. Politécnica Salesiana</i> ; Bastos, Teodiano <i>Univ. Federal do Espírito Santo</i>	09:30-09:45	ThAT18.5	Supervised Nonlinear Dimension Reduction of Functional Magnetic Resonance Imaging Data using Sliced Inverse Regression Tu, Yiheng* <i>The Univ. of Hong Kong</i> ; Tan, Ao <i>The Univ. of Hong Kong</i> ; Fu, Zening <i>Univ. of Hong Kong</i> ; Hung, Y.S. <i>The Univ. of Hong Kong</i> ; Hu, Li <i>Southwest Univ.</i> ; Zhang, Zhiguo <i>Nanyang Technological Univ.</i>

09:45-10:00	ThAT18.6	09:00-09:15	ThAT20.3
Efficient Solution Methodology for Calibrating the Hemodynamic Model using Functional Magnetic Resonance Imaging (fMRI) Measurements		Electrically Induced Energy Transmission used for Implantable Medical Devices Deep Inside the Body: Measurement of Received Voltage in Consideration of Biological Effect	
Zambri, Brian* <i>California State Univ., Northridge, Interdisciplinary Resea</i> ; Djellouli, Rabia <i>California state Univ. Northridge</i> ; Laleg, Taous-Meriem <i>INRIA</i>		Shiba, Kenji* <i>Tokyo Univ. of Science</i>	
ThAT19: 08:30-10:00	Space 3	09:15-09:30	ThAT20.4
2.12 Image Analysis in Cancer Imaging (Oral Session)		Experimenting with Microbial Fuel Cells for Powering Implanted Biomedical Devices	
Co-Chair: Acosta, Oscar <i>Univ. of Rennes 1</i>		Roxby, Daniel Ninio* <i>Univ. of Tech., Sydney</i> ; Tran, Nham <i>Univ. of Tech., Sydney</i> ; Yu, Pak-Lam <i>Massey Univ., BioTech. Group</i> ; Nguyen, Hung T. <i>Univ. of Tech., Sydney</i>	
08:30-08:45	ThAT19.1	09:30-09:45	ThAT20.5
Exploring Automatic Prostate Histopathology Image Gleason Grading via Local Structure Modeling		Towards a Highly-Scalable Wireless Implantable System-on-a-Chip for Gastric Electrophysiology	
Wang, Daihou <i>Rutgers, the State Univ. of New Jersey</i> ; Foran, David J. <i>Rutgers Cancer Institute of New Jersey</i> ; Ren, Jian <i>Rutgers Univ.</i> ; Zhong, Hua <i>Rutgers Cancer Institute of New Jersey</i> ; Kim, Isaac Y. <i>Rutgers Cancer Institute of New Jersey</i> ; Qi, Xin* <i>Rutgers Univ.</i>		Ibrahim, Ahmed* <i>Pennsylvania State Univ.</i> ; Farajidavar, Aydin <i>New York Institute of Tech.</i> ; Kiani, Mehdi <i>Pennsylvania State Univ.</i>	
08:45-09:00	ThAT19.2	09:45-10:00	ThAT20.6
Melanoma Detection Algorithm based on Feature Fusion		A Low-Noise Instrumentation Amplifier with DC Suppression for Recording ENG Signals	
Barata, Catarina* <i>Instituto Superior Tecnico</i> ; Celebi, M. Emre <i>Louisiana State Univ in Shreveport</i> ; Marques, Jorge <i>Instituto Superior Tecnico</i>		Paraskevopoulou, Sivylla-Eleni* <i>Imperial College London</i> ; Eftekhar, Amir <i>Imperial College</i> ; Kulasekeram, Nishanth <i>Imperial College London</i> ; Toumazou, Christofer <i>Imperial College London</i>	
09:00-09:15	ThAT19.3	ThBPoT1: 10:00-11:30	Gold Room
A New Parameter Computed with Independent Component Analysis to Predict Rectal Toxicity Following Prostate Cancer Radiotherapy		1.44 Biomedical Simulation involving Signal Processing II (Poster Session)	
Fargeas, Auréline* <i>LTSI - Univ. of Rennes 1</i> ; Ospina, Juan David <i>LTSI - Univ. of Rennes 1</i> ; Kachenoura, Amar <i>Univ. de Rennes1 and INSERM</i> ; Costet, Nathalie <i>LTSI, Univ. de Rennes1</i> ; Albera, Laurent <i>Univ. de Rennes 1 and INSERM</i> ; Lafond, Caroline <i>Univ. of Rennes 1</i> ; Acosta, Oscar <i>Univ. of Rennes 1</i> ; De Crevoisier, Renaud <i>INSERM, U1099, Rennes, F-35000, France - Univ. de Rennes 1</i> ,		10:00-11:30	ThBPoT1.1
09:15-09:30	ThAT19.4	Ultrasound Observation of GAG Content of Human Hip Joint Cartilage in Different Old Age Groups	
An Automated Method for Detecting Architectural Distortions on Mammograms using Direction Analysis of Linear Structure		Ren, Pengling <i>Beihang Univ.</i> ; Li, Xiaofei <i>Beihang Univ.</i> ; Fan, Fan <i>Beihang Univ.</i> ; Cai, Xiran <i>Beihang Univ.</i> ; Gong, He <i>Beihang Univ.</i> ; Fan, Yubo <i>Beihang Univ.</i> ; Niu, Haijun* <i>Beihang Univ.</i>	
Matsubara, Tomoko* <i>Nagoya Bunri Univ.</i> ; Ito, Akihiro <i>Gifu Univ.</i> ; Tsunomori, Akinori <i>Konica Minolta, Inc</i> ; Hara, Takeshi <i>Gifu Univ Graduate Sch of Medicine</i> ; Muramatsu, Chisako <i>Gifu Univ.</i> ; Endo, Tokiko <i>National Hospital Organization East Nagoya Hospital</i> ; Fujita, Hiroshi <i>Gifu Univ.</i>		10:00-11:30	ThBPoT1.2
09:30-09:45	ThAT19.5	Motion Trajectory Analysis for Evaluating the Performance of Functional Upper Extremity Tasks in Daily Living: A Pilot Study	
Iris Melanoma Segmentation Applying Active Contour Model		Li, Saiyi* <i>Deakin Univ.</i> ; Pathirana, Pubudu N. <i>Deakin Univ.</i> ; Galea, Mary P. <i>Dept. of Medicine (Royal Melbourne Hospital)</i>	
Jaworek-Korjakowska, Joanna* <i>AGH Univ. of Science and Tech.</i>		10:00-11:30	ThBPoT1.3
09:45-10:00	ThAT19.6	Spatially Distributed Surface Electromyography Signal Simulator	
Automatic Polyp Detection: A Comparative Study		Moura, Igor Luiz Bernardes de* <i>Univ. of Brasilia</i> ; von Borries, Ricardo F. <i>The Univ. of Texas at El Paso</i> ; Miosso, Cristiano <i>Univ. of Brasilia at Gama</i> ; Soares, Fabiano Araujo <i>Univ. of Brasilia - UnB</i>	
El Khatib, Alaa* <i>Khalifa Univ.</i> ; Werghi, Naoufel <i>Khalifa Univ. of Science, Technology & Research</i> ; Al-Ahmad, Hussein <i>Khalifa Univ.</i>		10:00-11:30	ThBPoT1.4
ThAT20: 08:30-10:00	Space 4	A Wall-Less Poly(vinyl Alcohol) Cryogel Flow Phantom with Accurate Scattering Properties for Transcranial Doppler Ultrasound Propagation Channels Analysis	
3.4 Implantable Sensors I (Oral Session)		Weir, Alexander James* <i>NHS Greater Glasgow and Clyde</i> ; Sayer, Robin <i>NHS Greater Glasgow and Clyde</i> ; Wang, Cheng-Xiang <i>Heriot-Watt Univ.</i> ; Parks, Stuart <i>Medical Devices Unit</i>	
Co-Chair: Shiba, Kenji <i>Tokyo University of Science</i>		10:00-11:30	ThBPoT1.5
08:30-08:45	ThAT20.1	A Novel Pseudo Resistor Structure for Biomedical Front-End Amplifiers	
Ultrasonic Beamforming System for Interrogating Multiple Implantable Sensors		Huang, Yu-Chieh* <i>National Chiao Tung Univ.</i> ; Yang, Tzu-Sen <i>National Chiao Tung Univ.</i> ; Chen, Xin-Zhuang <i>National Chiao Tung Univ.</i> ; Chiou, Jin-Chern <i>National Chiao Tung Univ.</i> ; Hsu, Shun-Hsi <i>National Chiao Tung Univ.</i>	
Seo, Dongjin* <i>Univ. of California Berkeley</i> ; Tang, Hao-Yen <i>UC Berkeley</i> ; Carmena, Jose M. <i>Univ. of California, Berkeley</i> ; Rabaey, Jan M. <i>Univ. of California, Berkeley</i> ; Alon, Elad <i>UC Berkeley</i> ; Boser, Bernhard <i>UC Berkeley</i> ; Maharbiz, Michel <i>Univ. of California, Berkeley</i>		10:00-11:30	ThBPoT1.6
08:45-09:00	ThAT20.2	Interferogram-Based Breast Tumor Classification using Microwave-Induced Thermoacoustic Imaging	
Piezoresistive Nanocomposite as an Embedded Stress Sensor in Instrumented Knee Prosthesis		Nan, Hao* <i>Stanford Univ.</i> ; Haghi, Benyamin <i>Sharif Univ. of Technology</i> ; Arbabian, Amin <i>Stanford Univ.</i>	
Do, Quyen* <i>Univ. of New South Wales, Canberra</i> ; O'Byrne, Sean <i>Univ. of New South Wales, Canberra</i> ; Perriman, Diana <i>Canberra Hospital</i> ; Smith, Paul <i>The Canberra Hospital</i>			

ThBPoT2: 10:00-11:30 Gold Room
1.45 Adaptive, Multivariate and Neural Network Approaches
(Poster Session)

10:00-11:30 ThBPoT2.1
Detection of Fiducial Points in ECG Waves using Iteration based Adaptive Thresholds

Kang, Wonjune* *Westminster School*; Byun, Kyungguen *Dept. of Electrical and Electronic Engineering, Yonsei Univ*; Kang, Hong-Goo *Yonsei Univ.*

10:00-11:30 ThBPoT2.2
Influence of the Occlusion Effect Over the Prediction-Error Feedback Cancellation System in Hearing Aids

Coelho Borges, Renata* *UFSC*; Holsbach Costa, Márcio *UFSC*

10:00-11:30 ThBPoT2.3
Automatic Artifact Suppression in Simultaneous TDCS-EEG using Adaptive Filtering

Mancini, Matteo *Univ. degli Studi di Roma Tre*; Pellicciari, Maria Concetta *Cognitive Neuroscience Section, IRCCS Centro San Giovanni di Dio*; Brignani, Debora *Cognitive Neuroscience Section, IRCCS Centro San Giovanni di Dio*; Mauri, Piercarlo *Cognitive Neuroscience Section, IRCCS Centro San Giovanni di Dio*; De Marchis, Cristiano* *Univ. degli Studi Roma Tre*; Miniussi, Carlo *Neuroscience Section, Dept. of Clinical and Experimental Sc*; Conforto, Silvia *Univ. Roma TRE*

10:00-11:30 ThBPoT2.4
Effects of Contralateral Acoustic Stimulation on Otoacoustic Emissions Induced by Swept Tones

Chen, Shixiong *Shenzhen Institutes of Advanced Tech.*; Jin, Yanbing *Northeastern Univ.*; Xu, Lisheng *Northeastern Univ.*; Li, Guanglin* *Shenzhen Institutes of Advanced Tech.*

10:00-11:30 ThBPoT2.5
Orientation and Depth Estimation for Femoral Components using Image Sensor, Magnetometer and Inertial Sensors in THR Surgeries

Gao, Jiyang *Tsinghua Univ.*; Su, Shaojie *Tsinghua Univ.*; Chen, Hong* *Tsinghua Univ.*; Wang, Zhihua *Tsinghua Univ.*

10:00-11:30 ThBPoT2.6
The Performance of the Spatiotemporal Kalman Filter and LORETA in Seizure Onset Localization

Hamid, Laith* *Univ. of Kiel*; Sarabi, Masoud *Dept. of Neuropediatrics, Univ. of Kiel, G*; Japaridze, Natia *Dept. of Neuropediatrics, Christian-Albrechts-Univ. of Kiel*; Wiegand, Gert *Dept. of Neuropediatrics, Univ. of Kiel, G*; Heute, Ulrich *Univ. of Kiel*; Stephani, Ulrich *Christian-Albrechts-Univ. of Kiel*; Galka, Andreas *Christian-Albrechts-Univ. of Kiel*; Siniatchkin, Michael *Univ. of Kiel*

10:00-11:30 ThBPoT2.7
The Choice of the Source Space and the Laplacian Matrix in LORETA and the Spatio-Temporal Kalman Filter EEG Inverse Methods

Habboush, Nawar* *Dept. of Medical Psychology and Medical Sociology, Univ.*; Hamid, Laith *Univ. of Kiel*; Japaridze, Natia *Dept. of Neuropediatrics, Christian-Albrechts-Univ. of Kiel*; Wiegand, Gert *Dept. of Neuropediatrics, Univ. of Kiel, 24105 Kiel, G*; Heute, Ulrich *Univ. of Kiel*; Stephani, Ulrich *Christian-Albrechts-Univ. of Kiel*; Galka, Andreas *Christian-Albrechts-Univ. of Kiel*; Siniatchkin, Michael *Univ. of Kiel*

10:00-11:30 ThBPoT2.8
Model based Filtering for Artifact and Noise Suppression with State Estimation for Electrodermal Activity Measurements in Real Time

Tronstad, Christian* *National Hospital of Norway*; Staal, Odd Martin *Prediktor Medical AS and Norwegian Univ. of Science and Tec*; Sælid, Steinar *Prediktor Medical AS*; Martinsen, Ørjan G *Univ. of Oslo*

10:00-11:30 ThBPoT2.9
Searching Arousals: A Fuzzy Logic Approach

Chaparro-Vargas, Ramiro* *RMIT Univ., School of Electrical and Computer Engineering*; Ahmed, Beena *Texas A&M Univ. at Qatar*; Penzel, Thomas *Charite Univ. Hospital*; Cvetkovic, Dean *RMIT Univ.*

10:00-11:30 ThBPoT2.10
Heart Rate Estimation from Facial Photoplethysmography during Dynamic Illuminance Changes

Lee, Dongseok* *Seoul National Univ.*; Kim, Jeehoon *Seoul National Univ.*; Kwon, Sungjun *Seoul National Univ.*; Park, Kwang S. *Seoul National Univ.*

10:00-11:30 ThBPoT2.11
Robust Driver Heartbeat Estimation: A Q-Hurst Exponent based Automatic Sensor Change with Interactive Multi-Model EKF

Vrazic, Sacha* *IMRA Europe SAS*

10:00-11:30 ThBPoT2.12
A Flexible Spatio-Temporal Filter for Biomedical Multichannel Data Denoising

Nuanprasert, Somchai* *Osaka Univ.*; Adachi, Yoshiaki *Kanazawa Institute of Technology*; Suzuki, Takashi *Osaka Univ.*

10:00-11:30 ThBPoT2.13
Measuring Cervical Vertebra Movements using Kinect Sensor

Ma, Xiaolong *XJTU*; Xu, Guanghua* *Xi'an Jiaotong Univ.*; Li, Min *School of Mechanical Engineering, Xi'an Jiaotong Univ.*; Xie, Jun *Xi'an Jiaotong Univ.*; Chen, longting *XJTU*; Pei, Wei *Xi'an Jiaotong Univ.*

10:00-11:30 ThBPoT2.14
An Evaluation of EEG Ocular Artifact Removal with a Multi-Channel Wiener Filter based on Probabilistic Generative Model

Maki, Hayato* *Nara Institute of Science and Technology*; Toda, Tomoki *Nara Institute of Science and Technology*; Sakriani, Sakti *Nara Institute of Science and Technology*; Graham, Neubig *Nara Institute of Science and Technology*; Satoshi, Nakamura *Nara Institute of Science and Technology*

10:00-11:30 ThBPoT2.15
Eliminating Pulse-Induced Artifacts in Urethral Pressure Data

KlÜnder, Mario* *Univ. of Stuttgart*; Feuer, Ronny *Univ. of Stuttgart*; Amend, Bastian *Univ. of Tübingen*; Kelp, Alexandra *Univ. of Tübingen*; Stenzl, Arnulf *Univ. Hospital Tübingen*; Sievert, Karl-Dietrich *Univ. of Tübingen*; Sawodny, Oliver *Institute for System Dynamics, Univ. of Stuttgart*; Ederer, Michael *Institute for System Dynamics, Univ. of Stuttgart*

10:00-11:30 ThBPoT2.16
Reconstruction of Signal in Plastic Scintillator of PET using Tikhonov Regularization

Raczynski, Lech* *National Centre for Nuclear Research*

10:00-11:30 ThBPoT2.17
CAP Waveform Estimation from the Measured Electrical Bioimpedance Values: Patient's Heart Rate Variability Analysis

Krivoshei, Andrei* *Tallinn Univ. of Technology*; Uuetoa, Hasso *Sahlgrenska Univ. Hospital*; Min, Mart *Tallinn Univ. of Technology*; Annus, Paul *ELIKO*; Uuetoa, Tiina *East-Tallinn Central Hospital*; Lamp, Jürgen *ELIKO Competence Center*

10:00-11:30 ThBPoT2.18
Mortality Prediction in Septic Shock Patients: Towards New Personalized Models in Critical Care

Carrara, Marta* *Politecnico di Milano, Italy*; Baselli, Giuseppe *Politecnico di Milano*; Ferrario, Manuela *Politecnico di Milano*

10:00-11:30 ThBPoT2.19
A Novel Technique to Investigate the Effect of Ageing on Ventricular Repolarization Characteristics in Healthy and LQTS Subjects

Imam, Hasan *Univ. of Melbourne*; Karmakar, Chandan* *Deakin Univ.*; Palaniswami, Marimuthu *The Univ. of Melbourne*; Khandoker, Ahsan Habib *Khalifa Univ. of Science, Technology and Research*

- 10:00-11:30 ThBPoT2.20
Automated Analysis of Nocturnal Oximetry as Screening Tool for Childhood Obstructive Sleep Apnea-Hypopnea Syndrome
 Álvarez, Daniel *Univ. of Valladolid, CIF*; Kheirandish-Gozal, Leila *Section of Sleep Medicine, Dept. of Pediatrics, Pritzker Sc*; Gutierrez, Gonzalo Cesar *Univ. of Valladolid*; Crespo, Andrea *Hospital Univ. Rio Hortega, Valladolid*; Philby, Mona F. *Section of Sleep Medicine, Dept. of Pediatrics, Pritzker Sc*; Mohammadi, Meelad *Section of Sleep Medicine, Dept. of Pediatrics, Pritzker Sc*; del Campo, Félix *Hospital del Rio Hortega*; Gozal, David *Section of Sleep Medicine, Dept. of Pediatrics, Pritzker Sc*; Hornero, Roberto* *Univ. of Valladolid*
- 10:00-11:30 ThBPoT2.21
Breast Cancer Classification using Extracted Parameters from a Terahertz Dielectric Model of Human Breast Tissue
 Truong, Bao C. Q.* *Univ. of Technology Sydney*; Hoang, Tuan D. *Univ. of Technology, Sydney*; Fitzgerald, Anthony *The Univ. of Western Australia*; Wallace, Vincent *The Univ. of Western Australia*; Nguyen, Tuan Nghia *Univ. of Technology, Sydney*; Nguyen, Hung T. *Univ. of Technology, Sydney*
- 10:00-11:30 ThBPoT2.22
Automatic Cough Episode Detection using a Vibroacoustic Sensor
 Młyńczak, Marcel* *Warsaw Univ. of Technology, Faculty of Mechatronics, Instit*; Pariaszewska, Katarzyna *Warsaw Univ. of Technology, Faculty of Mechatronics, Instit*; Cybulski, Gerard *Warsaw Univ. of Technology, Faculty of Mechatronics*
- 10:00-11:30 ThBPoT2.23
Residual Analysis of Ground Reaction Forces Simulation during Gait using Neural Networks with Different Configurations
 Leporace, Gustavo* *Univ. Federal do Rio de Janeiro*; Batista, Luiz Alberto *Univ. Estadual do Rio de Janeiro*; Metsavaht, Leonardo *Instituto Brasil de Tecnologias da Saúde*; Nadal, Jurandir *Federal Univ. of Rio de Janeiro*
- 10:00-11:30 ThBPoT2.24
Biometric Identification with High Frequency Electrocardiogram: Unregistered User Refusal Method and Performance Evaluation
 Kyoso, Masaki* *Tokyo City Univ.*
- 10:00-11:30 ThBPoT2.25
EEG based Patient Emotion Monitoring using Relative Wavelet Energy Feature and Back Propagation Neural Network
 Purnamasari, Prima Dewi* *Univ. Indonesia*; Ratna, Anak Agung Putri *Univ. Indonesia*; Kusumoputro, Benyamin *Univ. Indonesia*
- 10:00-11:30 ThBPoT2.26
Model Selection for PCA-Linear SVM for Automated Detection of NS1 Molecule from Raman Spectra of Salivary Mixture
 Mohd Radzol, Afaf Rozan *Univ. Teknologi MARA*; Lee, Khuan Y.* *Univ. Teknologi MARA*; Mansor, Wahidah *Univ. Teknologi MARA*
- 10:00-11:30 ThBPoT2.27
Sleep Spindle Detection using Deep Learning: A Validation Study based on Crowdsourcing
 Tan, Dakun *Xidian Univ.*; Zhao, Rui *Xidian Univ.*; Sun, Jinbo *School of Life Science and Technology, Xidian Univ., Xi'an*; Qin, Wei* *Xidian Univ.*
- 10:00-11:30 ThBPoT2.28
A New Connectivity Toolbox to Infer Topological Features of In-Vitro Neural Networks
 Pastore, Vito Paolo* *Univ. of Genova*; Poli, Daniele *Univ. of Genova*; Martinoia, Sergio *Univ. of Genova*; Massobrio, Paolo *Univ. of Genova*
- 10:00-11:30 ThBPoT2.29
A Comparative Study of Breast Cancer Diagnosis based on Neural Network Ensemble via Improved Training Algorithms
 Azami, Hamed* *Univ. of Edinburgh*; Escudero, Javier *Univ. of Edinburgh*
- 10:00-11:30 ThBPoT2.30
Cluster-Span Threshold: An Unbiased Threshold for Binarising Weighted Complete Networks in Functional Connectivity Analysis
 Smith, Keith* *Univ. of Edinburgh*; Azami, Hamed *Univ. of Edinburgh*; Parra, Mario A *Univ. of Edinburgh*; Starr, John *Univ. of Edinburgh*; Escudero, Javier *Univ. of Edinburgh*
- 10:00-11:30 ThBPoT2.31
Investigating Deep Learning for FNIRS based BCI
 Hennrich, Johannes* *Karlsruhe Institute of Technology*; Herff, Christian *Karlsruhe Institute of Technology*; Heger, Dominic *Karlsruhe Institute of Technology, Cognitive Systems Lab*; Schultz, Tanja *Karlsruhe Institute of Technology, Cognitive Systems Lab*
- 10:00-11:30 ThBPoT2.32
Resting State EEG-Based Biometrics for Individual Identification using Convolutional Neural Networks
 Ma, Lan* *The Chinese Univ. of Hong Kong*; Minett, James *The Chinese Univ. of Hong Kong*; Blu, Thierry *The Chinese Univ. of Hong Kong*; Wang, William S-Y *The Chinese Univ. of Hong Kong*
- 10:00-11:30 ThBPoT2.33
A Dynamic EMG-Torque Model of Elbow based on Neural Networks
 Peng, Liang *Institute of Automation, Chinese Academy of Sciences*; Hou, Zeng-Guang* *Institute of Automation, Chinese Academy of Sciences*; Wang, Weiqun *Institute of Automation, Chinese Academy of Sciences*
- 10:00-11:30 ThBPoT2.34
The Segmented-Beat Modulation Method for ECG Estimation
 Agostinelli, Angela *Polytechnic Univ. of Marche*; Giuliani, Corrado *Polytechnic Univ. of Marche*; Fioretti, Sandro *Univ. Politecnica delle Marche*; Di Nardo, Francesco *Polytechnic Univ. of Marche*; Burattini, Laura* *Univ. Politecnica delle Marche*
- 10:00-11:30 ThBPoT2.35
A Basic Study of Activity Type Detection and Energy Expenditure Estimation for Children and Youth in Daily Life using 3-Axis Accelerometer and 3-Stage Cascaded Artificial Neural Network
 Jang, Yongwon* *Electronics & Telecom Research Inst.*; Song, Yoonseon *Electronics & Telecom Research Inst*; Noh, Hyung Wook *Electronics and Telecommunications Research Institute*; Kim, Seunghwan *Electronics & Telecom Research Inst*
- ThBPoT3: 10:00-11:30 Gold Room
1.46 Connectivity, Causality and Phase Locking in Biomedical Signals (Poster Session)
- 10:00-11:30 ThBPoT3.1
Kernel-Nonlinear-PDC Extends Partial Directed Coherence to Detecting Nonlinear Causal Coupling
 Massaroppe, Lucas* *Univ. of Sao Paulo*; Baccala, Luiz Antonio *Escola Politecnica*
- 10:00-11:30 ThBPoT3.2
Assessing Assumptions of Multivariate Linear Regression Framework Implemented for Directionality Analysis of FMRI
 Dang, Shilpa* *Indian Institute of Technology Delhi*; Chaudhury, Santanu *Indian Institute of Technology Delhi*; Lall, Brejesh *Indian Institute of Technology Delhi*; Roy, Prasun Kumar *National Brain Research Center*
- 10:00-11:30 ThBPoT3.3
Induced Schizophrenic Like Breathing Pattern Leads to Impaired Cardiorespiratory Coupling in Healthy Subjects
 Schulz, Steffen *Univ. of Applied Sciences Jena*; Haueisen, Jens *Technical Univ. Ilmenau*; Bär, Karl-Jürgen *Friedrich-Schiller-Univ. of Jena*; Voss, Andreas* *Univ. of Applied Sciences Jena*

10:00-11:30	ThBPoT3.4	Classification of Pregnancy and Labor Contractions using a Graph Theory based Analysis Nader, Noujoud* <i>Sorbonne Univ., Univ. de Technologie de Compiègne</i> ; Hassan, Mahmoud <i>Univ. de Rennes 1</i> ; El Falou, Wassim <i>Univ. Libanaise- Faculté de Génie</i> ; <i>Univ. libanaise- E</i> ; Diab, Ahmad <i>Univ. de technologie de Compiègne - UTC</i> ; Al-Omar, Sally <i>Univ. de Rennes 1</i> ; Khalil, Mohamad <i>Lebanese Univ., Doctoral School for Sciences and Technology</i> ; Marque, Catherine <i>Univ. of Technology of Compiègne</i>	10:00-11:30	ThBPoT4.3	Development of 2D+T Tracking Algorithm in Ultrasound Images for Radiotherapy Abdouni, Abdenaceur* <i>Centre Leon Berard</i> ; Presles, Benoît <i>CREATIS</i> ; Fargier-Voiron, Marie <i>CREATIS</i> ; Rit, Simon <i>Univ. de Lyon, CREATIS</i> ; CNRS UMR5220; Inserm U1044; INSA; Sarrut, David <i>Léon Bérard anti-cancer Center / CREATIS lab</i>
10:00-11:30	ThBPoT3.5	Prediction of Motor Imagery based Brain Computer Interface Performance using a Reaction Time Test Darvishi, Sam* <i>The Univ. of Adelaide</i> ; Abbott, Derek <i>The Univ. of Adelaide</i> ; Baumert, Mathias <i>The Univ. of Adelaide</i>	10:00-11:30	ThBPoT4.4	A New Region Descriptor for Multi-Modal Medical Image Registration and Region Detection Wan, Xiaonan <i>Institute of Automation, the Chinese Academy of Sciences</i> ; Yu, Dongdong <i>Key Laboratory of Molecular Imaging, Institute of Automation, Ch</i> ; Yang, Feng <i>Dept. of Biomedical Engineering, Beijing Jiaotong Univ.</i> ; Yang, Caiyun <i>Institute of Automation, Chinese Academy of Sciences</i> ; Leng, Chengcai <i>Key Laboratory of Molecular Imaging, Institute of Automation, Ch</i> ; Xu, Min <i>Chinese Academy of Sciences</i> ; Tian, Jie* <i>Chinese Academy of Sciences</i>
10:00-11:30	ThBPoT3.6	An EEG Coherence-Based Analysis Approach for Investigating Response Conflict Processes in 7 and 9-Year Old Children Almabruk, Tahani* <i>Curtin Univ.</i> ; Iyer, Kartik <i>Curtin Univ.</i> ; Tan, Tele <i>Curtin Univ.</i> ; Roberts, Gareth <i>Murdoch Univ.</i> ; Anderson, Mike <i>Murdoch Univ.</i>	10:00-11:30	ThBPoT4.5	Atlas to Patient Registration with Brain Tumor based on a Mesh-Free Method Boulanger, Pierre* <i>Univ. of Alberta</i> ; Diaz, Idanis <i>Univ. of Alberta</i>
10:00-11:30	ThBPoT3.7	Seizure Prediction by Analyzing EEG Signal based on Phase Correlation Parvez, Mohammad Zavid* <i>Charles Sturt Univ.</i> ; Paul, Manoranjan <i>Charles Sturt Univ.</i>	10:00-11:30	ThBPoT4.6	Regional Assessment of Lung Function using Thin-Plate Splines to Align Structural and Functional Imaging Bennett, Michael John* <i>Univ. Hospital Southampton NHS Foundation Trust</i> ; Havelock, Tom <i>Faculty of Medicine, Univ. of Southampton</i> ; Bennett, Surussawadi <i>Research Centre in Back, Neck, Other Joint Pain and Human Perfor</i> ; Conway, Joy <i>Faculty of Health Sciences, Univ. of Southampton</i> ; Fleming, John <i>Southampton NIHR Respiratory Biomedical Research Unit, Univ.</i> ; Howarth, Peter <i>Faculty of Medicine, Univ. of Southampton</i>
10:00-11:30	ThBPoT3.8	Long-Term Scalp Epileptic EEG Quantification with GMA Dynamics Ji, Hong <i>Institute of Artificial Intelligence and Robotics, Xi'an Jiaotong</i> ; Khodam Hazrati, Mehrnaz <i>Univ. of Luebeck</i> ; Chen, Badong* <i>Xi'an Jiaotong Univ.</i> ; Liu, Yonghong <i>Xijing Hospital</i> ; Keil, Andreas <i>Univ. of Florida</i> ; Principe, Jose <i>Univ. of Florida</i>	10:00-11:30	ThBPoT4.7	Markerless Registration for Image-Guided Endoscopic Retrograde Cholangiopancreatography (ERCP) Jung, Young-gi <i>Korea Advanced Institute of Science and Technology</i> ; Kim, Myeongjin <i>KAIST (Korea Advanced Institute of Science and Technology)</i> ; Lee, Doo Yong* <i>KAIST</i>
10:00-11:30	ThBPoT3.9	EEG Classification of Emotions using Emotion-Specific Brain Functional Network Gonuguntla, Venkateswarlu <i>Kyungpook National Univ.</i> ; Shafiq, Ghufraan <i>Kyungpook National Univ.</i> ; Wang, Yubo <i>Kyungpook National Univ.</i> ; Veluvolu, Kalyana C.* <i>Kyungpook National Univ.</i>	10:00-11:30	ThBPoT4.8	Registration of Lung CT Images Acquired in Different Respiratory Ranges with 4DCT and HRCT Pennati, Francesca <i>Politecnico di Milano</i> ; Salito, Caterina <i>Politecnico di Milano</i> ; Aliverti, Andrea* <i>Politecnico di Milano</i>
10:00-11:30	ThBPoT3.10	Effect of Age on Changes in Motor Units Functional Connectivity Pooapadi Arjunan, Sridhar* <i>RMIT Univ.</i> ; Kant Kumar, Dinesh <i>RMIT Univ.</i>	10:00-11:30	ThBPoT4.9	A Comparative Study for Chest Radiograph Image Retrieval using Binary, Texture and Deep Learning Classification Anavi, Yaron <i>Tel-Aviv Univ.</i> ; Greenspan, Hayit K.* <i>Tel Aviv Univ.</i> ; Kogan, Ilya <i>Tel-Aviv Univ.</i> ; Gelbart, Elad <i>Tel Aviv Univ.</i> ; Geva, Ofer <i>Tel-Aviv Univ.</i>
10:00-11:30	ThBPoT3.11	Assessing Small-Worldness of Dynamic Functional Brain Connectivity during Complex Tasks Ren, Shen <i>Singapore Institute for NeuroTechnology, Centre for Life Science</i> ; Taya, Fumihiko <i>National Univ. of Singapore</i> ; Sun, Yu <i>National Univ. of Singapore</i> ; de Souza, Joshua <i>Singapore Institute for NeuroTechnology, Centre for Life Science</i> ; Thakor, Nitish <i>Johns Hopkins Univ.</i> ; Bezerianos, Anastasios* <i>National Univ. of Singapore</i>	10:00-11:30	ThBPoT4.10	Content-Based Image Retrieval in Homomorphic Encryption Domain Bellafqira, Reda <i>Institute Mines-Telecom; Telecom Bretagne</i> ; Coatrieux, Gouenou <i>Institute Telecom - Telecom Bretagne - Inserm</i> ; Bouslimi, Dalel* <i>Telecom Bretagne</i> ; Quellec, Gwenole <i>Inserm</i>
ThBPoT4: 10:00-11:30		Gold Room	ThBPoT5: 10:00-11:30		
2.34 Image Registration II (Poster Session)			Gold Room		
10:00-11:30	ThBPoT4.1	Patient Specific Phantom in Bimodal Image Navigation System Juszczak, Jan <i>Silesian Univ. of Tech.</i> ; Pyciński, Bartłomiej* <i>Silesian Univ. of Tech.</i> ; Pietka, Ewa <i>Silesian Univ. of Tech.</i>	2.35 Image Segmentation, Compression and Enhancement (Poster Session)		
10:00-11:30	ThBPoT4.2	Finding Complete 3D Vertex Correspondence for Statistical Shape Modeling Palmer, Robert <i>leuan Swansea Univ.</i> ; Xie, Xianghua* <i>Swansea Univ.</i> ; Tam, Gary <i>Swansea Univ.</i>	10:00-11:30	ThBPoT5.1	Ensembling Brain Regions for Brain Decoding Alkan, Sarper* <i>Middle East Technical Univ.</i> ; Yarman Vural, Fatos <i>Middle East Technical Univ.</i>
			10:00-11:30	ThBPoT5.2	Sparse High Order Potentials for Extending Multi-Surface Segmentation of OCT Images with Drusen Oliveira, Jorge* <i>Univ. of Minho</i> ; Pereira, Sérgio Rafael <i>Mano Univ. of Minho, School of Engineering, Dept. of Electr</i> ; Goncalves, Luís <i>OftalmoCenter</i> ; Ferreira, Manuel Joao <i>Univ. of Minho</i> ; Silva, Carlos Alberto <i>Batista Univ. do Minho</i>

- 10:00-11:30 ThBPoT5.3
Lossless Compression of Medical Images using Burrows-Wheeler Transformation with Inversion Coder
 Preston, Collin *SUNY Fredonia*; Arnavut, Ziya *SUNY Fredonia*; Koc, Basar* *Univ. of Miami*
- 10:00-11:30 ThBPoT5.4
Hair Removal on Dermoscopy Images
 Maglogiannis, Ilias* *Univ. of Piraeus*; Delibasis, Konstantinos *Univ. of Central Greece*
- 10:00-11:30 ThBPoT5.5
Facial Nerve Image Enhancement from CBCT using Supervised Learning Technique
 Lu, Ping* *Institute for Surgical Technology and Biomechanics, Univ. of Bern*; Barazzetti, Livia *Univ. of Bern*; Chandran, Vimal *Univ. of Bern*; Gavaghan, Kate *Bern Univ.*; Weber, Stefan *Univ. of Bern*; Gerber, Nicolas *Univ. of Bern*; Reyes, Mauricio *Institute for Surgical Technology and Biomechanics, Univ. Bern*
- 10:00-11:30 ThBPoT5.6
Nasopharyngeal Carcinoma Segmentation via HMRP-EM with Maximum Entropy
 Huang, Kai-Wei *Sun Yat-Sen Univ.*; Zhao, Zhe-Yi* *Sun Yat-sen Univ.*; Gong, Qian *Sun Yat-Sen Univ.*; Zha, Juan *Sun Yat-sen Univ.*; Chen, Liu *Sun Yat-Sen Univ.*; Yang, Ran *Sun Yat-Sen Univ.*
- 10:00-11:30 ThBPoT5.7
CT Image Segmentation in Traumatic Brain Injury
 Soroushmehr, S.M.Reza* *Univ. of Michigan, Ann Arbor*; Bafna, Abhishek *Univ. of Michigan, Ann Arbor*; Schlosser, Steven *NovoDynamics Inc*; Ward, Kevin *Virginia Commonwealth Univ.*; Derksen, Harm *Univ. of Michigan, Ann Arbor*; Najarian, Kayvan *Univ. of Michigan - Ann Arbor*
- 10:00-11:30 ThBPoT5.8
Multi-Atlas Label Fusion using Hybrid of Discriminative and Generative Classifiers for Segmentation of Cardiac MR Images
 Sedai, Suman *IBM Research Australia*; Garnavi, Rahil* *IBM Research Australia*; Roy, Pallab *IBM Research Australia*; Liang, Xi *IBM Melbourne Research Lab*
- 10:00-11:30 ThBPoT5.9
Accurate Kidney Surface Reconstruction from 3D Ultrasonography for Volume Assessment: First Clinical Evaluation
 Li, Zhi-Cheng* *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*; Li, Kai *The Third Affiliated Hospital of Sun Yat-sen Univ.*; Ken, Chen *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*; Xie, Yaoqin *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*
- 10:00-11:30 ThBPoT5.10
Determination of Lung Regions on Chest CT Images with Diffuse Lung Diseases by use of Anatomical Structures and Pulmonary Textures
 Karasawa, Kyohei *Yamaguchi Univ.*; Kido, Shoji* *Graduate School of Medicine, Yamaguchi Univ.*; Hirano, Yasushi *Yamaguchi Univ.*; Kozuka, Kazuki *Panasonic Corporation*
- 10:00-11:30 ThBPoT5.11
Echogenicity based Approach to Detect, Segment and Track the Common Carotid Artery in 2D Ultrasound Images
 Subbarao, Nikhil Narayan* *Nanyang Technological Univ.*; Marziliano, Pina *Nanyang Technological Univ.*
- 10:00-11:30 ThBPoT5.12
A DBSCAN based Approach for Jointly Segment and Classify Brain MR Images
 Baselice, Fabio* *Univ. of Napoli Parthenope*; Coppolino, Luigi *Univ. of Napoli Parthenope, Dept. di Ingegneria*; D'Antonio, Salvatore *Univ. of Napoli Parthenope, Dept. di Ingegneria*; Ferraioli, Giampaolo *Univ. of Napoli Parthenope, Dept. di Scienze e Tecno*; Sgaglione, Luigi *Univ. of Napoli Parthenope, Dept. di Ingegneria*
- 10:00-11:30 ThBPoT5.13
Image Segmentation of Pyramid Style Identifier based on Support Vector Machine for Colorectal Endoscopic Images
 Okamoto, Takumi *Hiroshima Univ.*; Koide, Tetsushi* *Hiroshima Univ.*; Sugi, Koki *Hiroshima Univ.*; Shimizu, Tatsuya *Hiroshima Univ.*; Hoang, Anh-Tuan *Hiroshima Univ.*; Tamaki, Toru *Hiroshima Univ.*; Raytchev, Bisser *Hiroshima Univ.*; Kaneda, Kazufumi *Hiroshima Univ.*; Kominami, Yoko *Hiroshima Univ.*; Yoshida, Shigeto *Hiroshima Univ.*; Mieno, Hiroshi *Hiroshima General Hospital of West Japan Railway Company*; Tanaka, Shinji *Hiroshima Univ.*
- 10:00-11:30 ThBPoT5.14
Segmentation of Bones and MCP Joint Region of the Hand from Ultrasound Images
 Sultan, Malik Saad* *Univ. of Porto*; Martins, Nelson *Enermeter, Sistemas de Medição, Lda & Instituto de Telecomunicac*; Ferreira, Manuel *Enermeter, Sistemas de Medição, Lda*; Coimbra, Miguel *Instituto de Telecomunicações / Univ. do Porto*
- 10:00-11:30 ThBPoT5.15
Image Processing in Biodosimetry: A Proposal of a Generic Free Software Platform
 Dümpelmann, Matthias* *Univ. Medical Center Freiburg*; da Matta, Mariel Cadena *GERAR - Univ. Federal de Pernambuco*; Pereira de Lemos Pinto, Marcela Maria *GERAR - Univ. Federal de Pernambuco*; Salazar e Fernandes, Thiago *GERAR - Univ. Federal de Pernambuco*; da Silva, Edvane *GERAR - Univ. Federal de Pernambuco*; Amaral, Ademir *Univ. Federal de Pernambuco*
- 10:00-11:30 ThBPoT5.16
Automated Saliency-Based Lesion Segmentation in Dermoscopic Images
 Ahn, Euijoon* *Univ. of Sydney*; BI, LEI *Univ. of Sydney*; Jung, Younhyun *The Univ. of Sydney*; Kim, Jinman *Univ. of Sydney*; Li, Changyang *Univ. of Sydney*; Fulham, Michael *Royal Prince Alfred Hospital*; Feng, Dagan *The Univ. of Sydney*
- 10:00-11:30 ThBPoT5.17
Computer Aided Analysis of Prostate Histopathology Images Gleason Grading Especially for Gleason Score 7
 Ren, Jian *Rutgers Univ.*; Sadimin, Evita *The Johns Hopkins Medical Institutions*; Wang, Daihou *Rutgers, the State Univ. of New Jersey*; Epstein, Jonathan *The Johns Hopkins Medical Institutions*; Foran, David J. *Rutgers Cancer Institute of New Jersey*; Qi, Xin* *Rutgers Univ.*
- 10:00-11:30 ThBPoT5.18
Colon Centerline Extraction in Fragmented Segmentations
 Krishnan, Karthik* *Samsung R&D Institute*; Madrosiya, Akshay *Samsung Research Institute, Bangalore*; Desai, Nasir *Samsung Electronics*
- 10:00-11:30 ThBPoT5.19
Automated Colour Identification in Melanocytic Lesions
 Sabbaghi Mahmouei, Sahar* *The Univ. of Melbourne*; Aldeen, Mohammad *The Univ. of Melbourne*; Garnavi, Rahil *IBM Research Australia*; Varigos, George *The Royal Melbourne Hospital*; Constantinos, Dolianitis *The Royal Melbourne Hospital*; Nicolopoulos, Jenny *The Royal Melbourne Hospital*
- 10:00-11:30 ThBPoT5.20
Automatic Detection of Small Bowel Tumors in Endoscopic Capsule Images by ROI Selection based on Discarded Lightness Information
 Vieira, Pedro Miguel* *Univ. do Minho*; Ramos, Jaime *Hospital dos Capuchos*; Lima, Carlos Manuel Gregorio Santos *Univ. of Minho*
- 10:00-11:30 ThBPoT5.21
Deep Neural Network and Random Forest Hybrid Architecture for Learning to Detect Retinal Vessels in Fundus Images
 Maji, Debapriya *Indian Institute of Tech., Kharagpur*; Santara, Anirban *Indian Institute of Tech., Kharagpur*; Ghosh, Sambuddha *Regional Institute of Ophthalmology Kolkata*; Sheet, Debdoot* *Indian Institute of Tech. Kharagpur*; Mitra, Pabitra *Indian Institute of Tech., Kharagpur*

- 10:00-11:30 ThBPoT5.22
Correction Tool for Active Shape Model based Lumbar Muscle Segmentation
 Valenzuela, Waldo* *Univ. of Bern*; Ferguson, Stephen J. *Univ. of Bern*; Ignasiak, Dominika *Institute for Biomechanics, ETH Zurich*; Diserens, Gaelle *Dept. of Clinical Research / AMSM, Univ. of Bern*; Vermathen, Peter *Dept. of Clinical Research / AMSM, Univ. of Bern*; Boesch, Chris *Dept. of Clinical Research / AMSM, Univ. of Bern*; Reyes, Mauricio *Institute for Surgical Technology and Biomechanics, Univ. Bern*
- 10:00-11:30 ThBPoT5.23
Brain Tumour Segmentation based on Extremely Randomized Forest with High-Level Features
 Pinto, Adriano *Univ. of Minho*; Pereira, Sérgio Rafael *Mano Univ. of Minho, School of Engineering, Dept. of Electr*; Correia, Higinio *Univ. of Minho*; Oliveira, Jorge* *Univ. of Minho*; Rasteiro, Deolinda *Instituto Politécnico de Coimbra, Departamento de Física e Matem*; Silva, Carlos Alberto *Batista Univ. do Minho*
- 10:00-11:30 ThBPoT5.24
A Multiparametric and Multiscale Approach to Automated Segmentation of Brain Veins
 Monti, Serena* *IRCCS SDN and Politecnico di Milano*; Palma, Giuseppe *Institute of Biostructure and Bioimaging*; Borrelli, Pasquale *IRCCS SDN*; Tedeschi, Enrico *Dept. of Advanced Biomedical Sciences, Univ. "Federico*; Coccozza, Sirio *Dept. of Advanced Biomedical Sciences, Univ. "Federico*; Salvatore, Marco *IRCCS SDN*; Mancini, Marcello *Institute of Biostructure and Bioimaging*
- 10:00-11:30 ThBPoT5.25
Epidermal Segmentation in High-Definition Optical Coherence Tomography
 Li, Annan* *Institute for Infocomm Research, ASTAR*; Cheng, Jun *Institute for Infocomm Research, AStar*; Yow, Ai Ping *Institute for Infocomm Research*; Wall, Carolin *Institute for Infocomm Research, Agency for Science, Technology*; Wong, Damon *Institute for Infocomm Research*; Tey, Hongliang *National Skin Center, Singapore*; Liu, Jiang *Institute for Infocomm Research, A STAR*
- 10:00-11:30 ThBPoT5.26
A Fully Automated Level-Set based Segmentation Method of Thoracic and Lumbar Vertebral Bodies in Computed Tomography Images
 Ruiz-España, Silvia *Univ. Politécnica de València*; Díaz-Parra, Antonio *Univ. Politécnica de València*; Arana, Estanislao *Radiology Dept., Fundación Instituto Valenciano de Oncología*; Moratal, David* *Univ. Politécnica de València*
- 10:00-11:30 ThBPoT5.27
A Fast Atlas Pre-Selection for Multi-Atlas based Brain Segmentation
 Ma, Jingbo *Harbin Institute of Technology Shenzhen Graduate School*; Ma, Heather Ting* *Harbin Institute of Technology Shenzhen Graduate School*; Li, Hengtong *Harbin Institute of Technology Shenzhen Graduate School, Shenzhe*; Ye, Chenfei *Harbin Institute of Technology Shenzhen Graduate School*; Wu, Dan *Johns Hopkins Univ.*; Tang, Xiaoying *Johns Hopkins Univ.*; Miller, Michael *Johns Hopkins Univ.*; Mori, Susumu *Johns Hopkins Univ. School of Medicine*
- 10:00-11:30 ThBPoT5.28
Minimum Mutual Information based Level Set Clustering Algorithm for Fast MRI Tissue Segmentation
 Dai, Shuanglu *Stevens Institute of Tech.*; Man, Hong* *Stevens Institute of Tech.*; Zhan, Shu *Hefei Univ. of Tech.*
- 10:00-11:30 ThBPoT5.29
Region of Interest Extraction for Lossless Compression of Bone X-Ray Images
 Kazemina, Salome *Isfahan Univ. of Technology*; Karimi, Nader *Isfahan Univ. of Technology*; Soroushmehr, S.M.Reza* *Univ. of Michigan, Ann Arbor*; Samavi, Shadrokh *McMaster Univ.*; Derksen, Harm *Univ. of Michigan, Ann Arbor*; Najarian, Kayvan *Univ. of Michigan - Ann Arbor*
- 10:00-11:30 ThBPoT5.30
Speckle Reduction based on Wiener Filter in Ultrasound Images
 Baselice, Fabio* *Univ. of Napoli Parthenope*; Ferraioli, Giampaolo *Univ. of Napoli Parthenope, Dept. di Scienze e Tecno*; Johnsy, Angel *Caroline Univ. of Napoli Parthenope*; Schirinzì, Gilda *Univ. of Napoli Parthenope, Dept. di Ingegneria*; Pascasio, Vito *Univ. of Napoli Parthenope, Dept. di Ingegneria*
- 10:00-11:30 ThBPoT5.31
Active Contour Segmentation using Level Set Function with Enhanced Image from Prior Intensity
 Kim, Sunhee *Korea Institute of Science and Technology*; Kim, Youngjun* *Korea Institute of Science and Technology*; Lee, Deukhee *Korea Institute of Science and Technology*; Park, Sehyung *Korea Institute of Science and Technology*
- 10:00-11:30 ThBPoT5.32
Ground Truth Delineation for Medical Image Segmentation based on Local Consistency and Distribution Map Analysis
 Cheng, Irene *Univ. of Alberta*; Sun, Xinyao *Univ. of Alberta*; Alsufyani, Noura *Univ. of Alberta*; Xiong, Zhihui *NUDT, Changsha*; Major, Paul *Univ. of Alberta*; Basu, Anup* *Univ. of Alberta*
- 10:00-11:30 ThBPoT5.33
Segmentation of Acne Lesion using Fuzzy C-Means Technique with Intelligent Selection of the Desired Cluster
 Khan, Javed *Univ. Teknologi Petronas*; Malik, Aamir Saeed* *Univ. Teknologi Petronas*; Kamel, Nidal *Technical Univ. of Petronas*; Dass, Sarat *Univ. Teknologi Petronas*; M. Affandi, Azura *Hospital Kuala Lumpur*
- 10:00-11:30 ThBPoT5.34
Geometry-Independent Assessment of Renal Volume in Polycystic Kidney Disease from Magnetic Resonance Imaging
 Turco, Dario* *Univ. of Bologna*; Severi, Stefano *Univ. of Bologna*; Mignani, Renzo *Nephrology and Dialysis Unit, Infermi Hospital*; Magistroni, Riccardo *Surgical, Medical and Dental Dept. of Morphological Science*; Corsi, Cristiana *Univ. of Bologna*
- 10:00-11:30 ThBPoT5.35
Muscle Segmentation in Time Series Images of Drosophila Metamorphosis
 Yadav, Kuleesha* *Bioinformatics Institute, A*STAR, Singapore*; Lin, Feng *Nanyang Technological Univ., Singapore*; Wasser, Martin *BiolmagingMW*
- 10:00-11:30 ThBPoT5.36
Automatic Segmentation of Nerve Structures in Ultrasound Images using Graph Cuts and Gaussian Processes
 Gil González, Julián* *Univ. Tecnológica de Pereira*; Alvarez, Mauricio A. *Univ. Tecnológica de Pereira*; Orozco, Alvaro *Univ. Tecnológica de Pereira*
- 10:00-11:30 ThBPoT5.37
Colorectal Polyp Segmentation using Front Propagation on Surfaces Guided by Shape
 Krishnan, Karthik* *Samsung R&D Institute*; Soniwal, Yogesh *Samsung Research Institute, Bangalore*; Madrosiya, Akshay *Samsung Research Institute, Bangalore*; Desai, Nasir *Samsung Electronics*
- 10:00-11:30 ThBPoT5.38
A Clustering based Method for Collagen Proportional Area Extraction in Liver Biopsy Images
 Giannakeas, Nikolaos* *Univ. of Ioannina*; Tsiouras, Markos G. *Univ. of Ioannina*; Tzallas, Alexandros *Technological Educational Institute of Epirus*; Kyriakidi, Kalliroi *Univ. of Ioannina*; E. Tsiannou, Zoe *Univ. of Ioannina*; Manousou, Pinelopi *Royal Free Sheila Sherlock Liver Unit, Royal Free Hospital and U*; Hall, Andrew *Dept. of Histopathology, UCL Medical School, Royal Free Cam*; Karvounis, Evaggelos *Univ. of Ioannina*; Tsiannos, Vasileios *Univ. of Ioannina*; Tsiannos, Epameinondas *Division of Gastroenterology, Faculty of Medicine, School of Hea*

- 10:00-11:30 ThBPoT5.39
Peripheral Nerve Segmentation using Nonparametric Bayesian Hierarchical Clustering
 Giraldo-Gutierrez, Juan José* *Univ. Tecnológica de Pereira*; Alvarez, Mauricio A. *Univ. Tecnológica de Pereira*; Orozco, Alvaro *Univ. Tecnológica de Pereira*
- 10:00-11:30 ThBPoT5.40
Estimation of Vocal Folds Plane in 3D CT Images for Diagnosis of Vocal Folds Abnormalities
 Hewavitharanage, Sajini Ruwanthika Gintota* *The Univ. of Melbourne*; Gubbi, Jayavardhana *The Univ. of Melbourne*; Thyagarajan, Dominic *Monash Medical Centre*; Lau, Ken *Monash Medical Centre*; Palaniswami, Marimuthu *The Univ. of Melbourne*
- ThBPoT6: 10:00-11:30 Gold Room
3.20 Wearable Systems II (Poster Session)
- 10:00-11:30 ThBPoT6.1
Pull Test Estimation in Parkinson's Disease Patients using Wearable Sensor Technology
 Pasluosta, Cristian Federico* *Friedrich-Alexander-Univ. Erlangen-Nürnberg*; Barth, Jens *ASTRUM IT GmbH*; Gaßner, Heiko *Univ. Klinikum Erlangen, Dept. of Molecular Neurology*; Klucken, Jochen *Univ. Hospital Erlangen*; Eskofier, Bjoern M *Friedrich-Alexander-Univ. Erlangen-Nürnberg*
- 10:00-11:30 ThBPoT6.2
Preliminary Methods for Wearable Neuro-Vascular Assessment with Non-Invasive, Active Sensing
 Carek, Andrew* *Georgia Institute of Tech.*; Töreyn, Hakan *Georgia Institute of Tech.*; Hersek, Sinan *Georgia Institute of Tech.*; Inan, Omer *Georgia Institute of Tech.*
- 10:00-11:30 ThBPoT6.3
Objective Evaluation of Oral Presentation Skills using Inertial Measurement Units
 Sessa, Salvatore* *Waseda Univ.*; Kong, Weisheng *Waseda Univ.*; Zhang, Di *Waseda Univ.*; Cosentino, Sarah *Waseda Univ.*; Manawadu, Udara *Waseda Univ.*; Kawasaki, Motoji *Waseda Univ.*; Thomas, George *Waseda Univ.*; Suzuki, Tomohiro *Waseda Univ.*; Tsumura, Ryosuke *Waseda Univ.*; Takanishi, Atsuo *Waseda Univ.*
- 10:00-11:30 ThBPoT6.4
A Knitted Garment using Intarsia Technique for Heart Rate Variability Biofeedback: Evaluation of Initial Prototype
 Abtahi, Farhad* *KTH Royal Institute of Technology*; Ji, Guangchao *School of Technology and Health, KTH Royal Institute of Technology*; Lu, Ke *School of Technology and Health, KTH Royal Institute of Technology*; Rödbj, Kristian *School of Technology and Health, KTH Royal Institute of Technology*; Seoane, Fernando *KTH-Royal Institute of Technology*
- 10:00-11:30 ThBPoT6.5
Clinical Validation of LTMS-S: A Wearable System for Vital Signs Monitoring
 Chételat, Olivier* *CSEM*; Ferrario, Damien *CSEM*; Proença, Martin *Swiss Center for Electronics and MicroTechnology (CSEM)*; Porchet, Jacques-André *CSEM SA*; Falhi, Abdessamad *CSEM*; Grossenbacher, Olivier *CSEM SA*; Delgado-Gonzalo, Ricard *CSEM*; Della Ricca, Nicolas *HNE*; Sartori, Claudio *Univ. Hospital CHUV Lausanne*
- 10:00-11:30 ThBPoT6.6
Synchronization and Communication of Cooperative Sensors
 Chételat, Olivier* *CSEM*; Rapin, Michael *Swiss Center of Electronics and MicroTechnology CSEM*; Meier, Christophe *CSEM SA*; Bischof, André *CSEM*; Augustyniak, Marcin *Kamil CSEM*
- 10:00-11:30 ThBPoT6.7
Towards the Development of a Wearable Electrical Impedance Tomography System: A Study about the Suitability of a Low Power Bioimpedance Front-End
 Menolotto, Matteo *STMicroelectronics*; Rossi, Stefano* *STMicroelectronics*; Dario, Paolo *Scuola Superiore Sant'Anna*; Della Torre, Luigi *STMicroelectronics*
- 10:00-11:30 ThBPoT6.8
Psychological Acute Stress Measurement using a Wireless Adhesive Biosensor
 Selvaraj, Nandakumar* *Vital Connect Inc*
- 10:00-11:30 ThBPoT6.9
A Magnetometer-Free Indoor Human Localization based on Loosely Coupled IMU/UWB Fusion
 Zihajehzadeh, Shaghayegh* *PhD Student, Simon Fraser Univ.*; Yoon, Paul K. *Simon Fraser Univ.*; Park, Edward J. *Simon Fraser Univ.*
- 10:00-11:30 ThBPoT6.10
Optimum Experimental Design Applied to MEMS Accelerometer Calibration for 9-Parameter Auto-Calibration Model
 Ye, Lin* *Univ. of Technology, Sydney (UTS)*; Su, Steven Weidong *Univ. of Technology, Sydney*
- 10:00-11:30 ThBPoT6.11
Performance Assessment of an RFID System for Automatic Surgical Sponge Detection in a Surgery Room
 Dinis, Hugo* *Univ. of Minho*; Zamith, Manuel *Univ. of Minho*; Mendes, Paulo M. *Univ. of Minho*
- 10:00-11:30 ThBPoT6.12
Sensors on Instrumented Socks for Detection of Lower Leg Edema – An in Vitro Study
 Zhang, Song *Univ. of Minnesota*; Rajamani, Rajesh* *Univ. of Minnesota*
- 10:00-11:30 ThBPoT6.13
Flexible and Self-Adaptive Neural Ribbon with Three-Dimensional Electrodes for Sciatic Nerve Recording
 Xiang, Zhuolin *Natl. Univ. of Singapore*; Yen, Shih-Cheng *Natl. Univ. of Singapore*; Sheshadri, Swathi *Natl. Univ. of Singapore*; Xue, Ning A* *STAR*; LEE, Sanghoon *Natl. Univ. of Singapore*; Wang, Jiahui *Natl. Univ. of Singapore*; Thakor, Nitish Johns *Hopkins Univ.*; Chengkuo, Lee* *Natl. Univ. of Singapore*
- ThBPoT7: 10:00-11:30 Gold Room
3.21 Bioelectric Sensors and Sensor Systems (Poster Session)
- 10:00-11:30 ThBPoT7.1
Study of Impedance Spectra for Dry and Wet EarEEG Electrodes
 Lind Kappel, Simon* *Aarhus Univ., Denmark*; Kidmose, Preben *Aarhus Univ., Denmark*
- 10:00-11:30 ThBPoT7.2
Electroencephalogram Measurement from the Hairy Part of the Scalp using Polymer-Based Dry Microneedle Electrodes
 Arai, Miyako *Keio Univ.*; Kudo, Yuta *Keio Univ.*; Miki, Norihisa* *Keio Univ.*
- 10:00-11:30 ThBPoT7.3
EEG Acquisition System based on Active Electrodes with Common-Mode Interference Suppression by Driving Right Leg Circuit
 Guermandi, Marco* *Univ. of Bologna*; Bigucci, Alessandro *Univ. of Bologna*; Franchi Scarselli, Eleonora *Univ. of Bologna*; Guerrieri, Roberto *Univ. of Bologna*
- 10:00-11:30 ThBPoT7.4
An MRI Readable Wireless Flexible Pressure Sensor
 Nakamura, Tatsuya* *Univ. of Tokyo*; Inoue, Yusuke *The Univ. of Tokyo*; Kim, Dongmin *The Univ. of Tokyo*; Matsuhisa, Naoji *The Univ. of Tokyo*; Yokota, Tomoyuki *The Univ. of Tokyo*; Sekitani, Tsuyoshi *The Univ. of Tokyo*; Someya, Takao *The Univ. of Tokyo*; Sekino, Masaki *The Univ. of Tokyo*
- 10:00-11:30 ThBPoT7.5
Electrochemical Label-Free Degranulation Monitoring for In-Situ Evaluation of Cellular Function
 Tabata, Miyuki *Tokyo Medical and Dental Univ.*; Goda, Tatsuro *Tokyo Medical and Dental Univ., Institute of Biomaterials a*; Matsumoto, Akira *Tokyo Medical and Dental Univ., Institute of Biomaterials a*; Miyahara, Yuji* *Tokyo Medical and Dental Univ., Institute of Biomaterials a*

- 10:00-11:30 ThBPoT7.6
A Novel Love Wave Biosensor for Rapid and Sensitive Detection of Marine Toxins
 Zhang, Xi *Zhejiang Univ.*; Fang, Jiaru *Zhejiang Univ.*;
 Zou, Yingchang *Zhejiang Univ.*; Zou, Ling *Zhejiang Univ.*;
 Hu, Ning *Zhejiang Univ.*; Wang, Ping* *Zhejiang Univ.*
- 10:00-11:30 ThBPoT7.7
Finger Motion Capture from Wrist-Electrode Contact Resistance
 Yoshimoto, Shunsuke* *Osaka Univ.*; Kawaguchi, Junki *Osaka Univ.*;
 Imura, Masataka *Kwansei Gakuin Univ.*; Oshiro, Osamu *Osaka Univ.*
- 10:00-11:30 ThBPoT7.8
Digitally Controlled Feedback for DC Offset Cancellation in a Wearable Multichannel EMG Platform
 Tomasini, Marco *Univ. of Bologna*; Benatti, Simone *Univ. of Bologna*;
 Casamassima, Filippo* *Univ. of Bologna*; Milosevic, Bojan *Fondazione Bruno Kessler*;
 Fateh, Schekeb *ETHZ*; Farella, Elisabetta *Fondazione Bruno Kessler (FBK)*;
 Benini, Luca *Univ. of Bologna*
- 10:00-11:30 ThBPoT7.9
A Programmable and Self-Adjusting Class E Amplifier for Efficient Wireless Powering of Biomedical Implants
 Stoecklin, Sebastian* *Albert-Ludwigs-Univ. Freiburg*; Volk, Tobias *Albert-Ludwigs-Univ. Freiburg*;
 Yousaf, Adnan *Albert-Ludwigs-Univ. Freiburg*; Reindl, Leonhard *Albert-Ludwigs-Univ. Freiburg*
- 10:00-11:30 ThBPoT7.10
Evaluation of Novel Textile Electrodes for ECG Signals Monitoring based on PEDOT: PSS-Treated Woven Fabrics
 Pani, Danilo* *Univ. of Cagliari*; Dessi, Alessia *DIEE - Univ. of Cagliari*;
 Gusai, Elisa *DIEE - Univ. of Cagliari*; Saenz-Cogollo, Jose Francisco *CNR*;
 Barabino, Gianluca *DIEE - Univ. of Cagliari*; Fraboni, Beatrice *Univ. of Bologna, Dept. of Physics and Astronomy*;
 Bonfiglio, Annalisa *Univ. of Cagliari*
- 10:00-11:30 ThBPoT7.11
The Role of Micro-Scale Current Sensing in Biomedicine: A Unifying View and Design Guidelines
 Carminati, Marco* *Politecnico di Milano*; Ferrari, Giorgio *Politecnico di Milano*;
 Vergani, Marco *Flextronics*; Sampietro, Marco *Politecnico di Milano*
- ThBPoT8: 10:00-11:30 Gold Room
3.22 Microfluidic Techniques, Methods and Systems II (Poster Session)
- 10:00-11:30 ThBPoT8.1
A Miniaturized Electrolytic Pump Sensorized with a Strain Gauge based on Thermoplastic Nanocomposite for Drug Delivery Systems
 Goffredo, Rosa* *Univ. Campus Bio-Medico di Roma*; Ferrone, Andrea *Univ. degli Studi "Roma Tre"*;
 Maiolo, Luca *Institute of Microelectronics and Microsystems; Consiglio Nazion.*;
 Pecora, Alessandro *Institute of Microelectronics and Microsystems; Consiglio Nazion.*;
 Accoto, Dino *Campus Bio-Medico Univ.*
- 10:00-11:30 ThBPoT8.2
Long Range Microfluidic Shear Device for Cellular Mechanotransduction Studies
 Dash, Sanat Kumar* *Indian Institute of Technology Madras*;
 Verma, Rama Shanker *Indian Institute of Technology Madras*;
 Das, Sarit K. *Indian Institute of Technology Madras*
- 10:00-11:30 ThBPoT8.3
E.coli DH5 α Cell Response to Sudden Change in Microfluidic Chemical Environment
 Murugesan, Nithya* *Indian Institute of Technology Madras*;
 Panda, Tapobrata *Indian Institute of Technology Madras*;
 Das, Sarit K. *Indian Institute of Technology Madras*
- 10:00-11:30 ThBPoT8.4
Novel Localized Heating Technique on Centrifugal Microfluidic Disc with Wireless Temperature Monitoring System
 Joseph, Karunan *Univ. of Malaya*;
 Ibrahim, Fatimah* *Univ. of Malaya*;
 Cho, Jongman *Inje Univ.*
- 10:00-11:30 ThBPoT8.5
Liquid Density Effect on Burst Frequency in Centrifugal Microfluidic Platforms
 Al Faqheri, Wisam *Medical Informatics & Biological Micro-electro-mechanical System*;
 Ibrahim, Fatimah* *Univ. of Malaya*;
 Thio, Tzer Hwai Gilbert *Univ. of Malaya / Inti International Univ.*;
 Joseph, Karunan *Univ. of Malaya*;
 Mohhtar, Mas Sahidayana *Faculty of Engineering; Madou, Marc Univ. of California, Irvine / Univ. of Malaya*
- 10:00-11:30 ThBPoT8.6
Red Blood Cells Flows in Rectilinear Microfluidic Chip
 Anandan, Princia *Univ. of Catania*;
 Ortiz, Daniel *Univ. of San Diego California*;
 Cabrales, Pedro *Univ. of San Diego California*;
 Intaglietta, Marcos *Univ. of San Diego California*;
 Bucolo, Maide* *Univ. degli Studi di Catania*
- 10:00-11:30 ThBPoT8.7
Simplified Fluid-Structure Coupled Analysis of Particle Movement for Designing of Microfluidic Cell Sorter
 Takagi, Yuto* *Mie Univ.*;
 Kotev, Vladimir *Bulgarian Academy of Sciences*;
 Yano, Kenichi *Mie Univ.*
- ThBPoT9: 10:00-11:30 Gold Room
4.14 Algorithms and Techniques for Systems Modeling (Poster Session)
- 10:00-11:30 ThBPoT9.1
Identification of Dynamical Biological Systems based on Random Effects Models
 Batista, Levy* *Univ. de Lorraine, Cran, Cybernano*;
 Bastogne, Thierry *Univ. de Lorraine*;
 Djermoune, El Hadi *Univ. de Lorraine, CRAN CNRS UMR 7039*
- 10:00-11:30 ThBPoT9.2
New VHP-Female V. 2.0 Full-Body Computational Phantom and Its Performance Metrics using FEM Simulator ANSYS HFSS
 Yanamadala, Janakinadh *Worcester Polytechnic Institute*;
 Noetscher, Gregory *Worcester Polytechnic Institute*;
 Rathi, Vishal *Worcester Polytechnic Institute*;
 Maliye, Sali *Worcester Polytechnic Institute*;
 Win, Htay Aung *Worcester Polytechnic Institute*;
 Tran, Anh Le *Worcester Polytechnic Institute*;
 Jackson, Xavier *Jamel Worcester Polytechnic Institute*;
 Htet, Aung Thu *Worcester Polytechnic Institute*;
 Kozlov, Mikhail *Max Planck Institute for Human Cognitive and Brain Sciences*;
 Nazarian, Ara *Beth Israel Deaconess Medical Center*;
 Louie, Sara *Ansys, Inc.*;
 Makarov, Sergey* *Electrical and Computer Engineering, Worcester Polytechnic Instit*
- 10:00-11:30 ThBPoT9.3
A Semi-Mechanistic Pharmacokinetic Model of Saquinavir Combined with Itraconazole in HIV-1-Positive Patients
 Lohitnavy, Manupat* *Naresuan Univ.*;
 Methaneethorn, Janthima *Naresuan Univ.*;
 Sriarwut, Thanyalak *Naresuan Univ.*;
 Pankaew, Anongnat *Naresuan Univ.*;
 Jenjob, Anchalee *Naresuan Univ.*;
 Phuphuk, Kiatiphong *Naresuan Univ.*
- 10:00-11:30 ThBPoT9.4
Pharmacokinetic Model for the Inhibition of Simvastatin Metabolism by Itraconazole
 Lohitnavy, Manupat* *Naresuan Univ.*;
 Methaneethorn, Janthima *Naresuan Univ.*;
 Chian-Ngermthanyakool, Rangsimaporn *Naresuan Univ.*;
 Tongpeng, Wasinee *Naresuan Univ.*;
 Chan-IM, Daranee *Naresuan Univ.*;
 Phaohorm, Suttipong *Naresuan Univ.*
- 10:00-11:30 ThBPoT9.5
Incorporation of Inhaled Insulin into the FDA Accepted University of Virginia/Padova Type 1 Diabetes Simulator
 Visentin, Roberto* *Univ. of Padova*;
 Klabunde, Thomas *Sanofi-Aventis Deutschland GmbH, R&D LGCR/Structure, Design & In*;
 Grant, Marshall *Mannkind Cooperation*;
 Dalla Man, Chiara *Univ. of Padova*;
 Cobelli, Claudio *Univ. of Padova*
- 10:00-11:30 ThBPoT9.6
Uncovering Microbial Duality within Human Microbiomes: A Novel Algorithm for the Analysis of Host-Pathogen Interactions
 Coelho, Edgar Duarte *Univ. of Aveiro*;
 Arrais, Joel *Perdiz Univ. of Coimbra*;
 Oliveira, José Luis* *Univ. of Aveiro*

- 10:00-11:30 ThBPoT9.7
An Evaluation of the Emergence of Drug Resistant Virus for HIV/AIDS Drug Treatments
 Chang, H.J.* *Kookmin Univ.*
- 10:00-11:30 ThBPoT9.8
Online Prediction of Glucose Concentration in Type 1 Diabetes using Extreme Learning Machines
 Georga, Eleni I. *Univ. of Ioannina*; Protopappas, Vasilios C. *Univ. of Patras*; Polyzos, Demosthenes *Univ. of Patras*; Fotiadis, Dimitrios I.* *Univ. of Ioannina*
- 10:00-11:30 ThBPoT9.9
Mathematical Modeling of Tumor Response to Radiation: Radio-Sensitivity Correlation with BOLD, TOLD, $\Delta R1$ and $\Delta R2^*$ Investigated in Large Dunning R3327-AT1 Rat Prostate Tumors
 Belfatto, Antonella* *Politecnico di Milano*; White, Derek A. *Univ. of Texas Southwestern*; Zhang, Zhongwei *Univ. of Texas Southwestern*; Zhang, Zhang *Univ. of Texas Southwestern*; Cerveri, Pietro *Politecnico di Milano*; Baroni, Guido *Politecnico di Milano*; Mason, Ralph P. *Univ. of Texas Southwestern*
- 10:00-11:30 ThBPoT9.10
Inference of Asynchronous Boolean Network from Biological Pathways
 Das, Haimabati* *Indian Institute of Technology Kharagpur*; Layek, Ritwik *Indian Institute of Technology Kharagpur*
- 10:00-11:30 ThBPoT9.11
Predicting Protein Function from Biomedical Text
 Taha, Kamal* *Khalifa Univ.*; Yoo, Paul *Bournemouth Univ.*
- 10:00-11:30 ThBPoT9.12
Differential Pathlength Factor Estimation for Brain-Like Tissue from a Single-Layer Monte Carlo Model
 Chatterjee, Subhasri* *City Univ. London*; Phillips, Justin *City Univ. London*; Kyriacou, Panayiotis *City Univ. London*
- 10:00-11:30 ThBPoT9.13
GPU Technology as a Platform for Accelerating Physiological Systems Modeling based on Laguerre-Volterra Networks
 Papadopoulos, Agathoklis *Univ. of Cyprus*; Kostoglou, Kyriaki *Univ. of Cyprus*; Mitsis, Georgios D.* *Univ. of Cyprus*; Theocharides, Theocharis *Univ. of Cyprus*
- 10:00-11:30 ThBPoT9.14
Software Tools for Data Modelling and Processing of Human Body Temperature Circadian Dynamics
 Petrova, Elena* *Ulyanovsk State Univ.*; Afanasova, Anastasiya *Ulyanovsk State Univ.*
- 10:00-11:30 ThBPoT9.15
Study of 1-year-old Baby Exposure to 3G Tablet Device using Polynomial Chaos
 Liorni, Ilaria* *Politecnico di Milano, Milano and Istituto di Ingegneria Biomedica*; Parazzini, Marta *Consiglio Nazionale delle Ricerche*; Fiocchi, S. *Consiglio Nazionale delle Ricerche CNR*; Kersaudy, Pierric *Orange Labs*; Varsier, Nadege *Orange Labs*; Ravazzani, Paolo *CNR*; Wiart, Joe *Orange Labs R&D and WHIST Lab*
- 10:00-11:30 ThBPoT9.16
The Volterra Functional Series is a Viable Alternative to Kinetic Models for Synaptic Modeling – Calibration and Benchmarking
 Hu, Eric* *Univ. of Southern California*; Bouteiller, Jean-Marie *Charles Univ. of Southern California*; Song, Dong *Univ. of Southern California*; Berger, Theodore *Univ. of Southern California*
- ThBPoT10: 10:00-11:30 Gold Room
5.12 Therapeutic Intravascular Devices II (Poster Session)
- 10:00-11:30 ThBPoT10.1
Bearing Gap Adjustment for Improvement of Levitation Performance in a Hydrodynamically Levitated Centrifugal Blood Pump
 Kosaka, Ryo* *AIST*; Yoshida, Fumihiko *Tokyo Univ. of Science*; Nishida, Masahiro *National Institute of Advanced Industrial Science and Technology*; Maruyama, Osamu *National Institute of Advanced Industrial Science and Technology*; Kawaguchi, Yasuo *Tokyo Univ. of Science*; Yamane, Takashi *Kobe Univ.*
- 10:00-11:30 ThBPoT10.2
A New Approach to Generate Arbitrary Pulsatile Pressure Wave Forms in Mechanical Circulatory Support Systems
 Aghababaei, Amin* *Ruhr-Univ. Bochum*; Hexamer, Martin *Ruhr-Univ. Bochum*
- 10:00-11:30 ThBPoT10.3
Effect of Intra-Aortic Balloon Pump on Coronary Blood Flow during Different Balloon Cycles Support: A Computer Study
 Aye, Thin Pa Pa* *Mahidol Univ.*; Htet, Zwe Lin *Mahidol Univ.*; Singhavilai, Thamvarit *Mahidol Univ.*; Naiyanetr, Phornphop *Mahidol Univ.*
- 10:00-11:30 ThBPoT10.4
Hemodynamics during Rotary Blood Pump Support with Speed Synchronization in Heart Failure Condition: A Modelling Study
 Htet, Zwe Lin *Mahidol Univ.*; Aye, Thin Pa Pa *Mahidol Univ.*; Singhavilai, Thamvarit *Mahidol Univ.*; Naiyanetr, Phornphop* *Mahidol Univ.*
- 10:00-11:30 ThBPoT10.5
Oscillometric Measurement of Arterial Pulse Pressure for Patients Supported by a Rotary Blood Pump
 Yu, Yih-Choung* *Lafayette College*; Peterson, Anna *Lafayette College*
- 10:00-11:30 ThBPoT10.6
Hemodynamic Performance of Edwards Intuity Valve in a Compliant Aortic Root Model
 Jahren, Silje Ekroll* *ARTORG Center, Univ. of Bern, Bern*; Heinisch, Paul Philipp *Dept. of Cardiovascular Surgery, Univ. Hospital Bern*; Wirz, Jessica *ARTORG Center, Univ. of Bern, Bern*; Winkler, Bernhard Michael *Dept. of Cardiovascular Surgery, Univ. Hospital Bern*; Carrel, Thierry *Dept. of Cardiovascular Surgery, Univ. Hospital Bern*; Obrist, Dominik *ARTORG Center, Univ. of Bern, Bern*
- 10:00-11:30 ThBPoT10.7
Design of Bioprosthetic Aortic Valves using Biaxial Test Data
 Dabiri, Yaghoub* *The Univ. of Calgary*; Paulson, Kent *The Univ. of Calgary*; Tyberg, John *The Univ. of Calgary*; Ronsky, Janet L. *Univ. of Calgary*; Ali, Imtiaz *The Univ. of Calgary*; Di Martino, Elena *The Univ. of Calgary*; Narine, Kishan *The Univ. of Calgary*
- 10:00-11:30 ThBPoT10.8
Energy-Efficient Implantable Transmitter for Restenosis Monitoring with Intelligent-Stents
 Rivas, David* *Univ. of Cantabria*; Miguel, Jose A. *Univ. of Cantabria*; Lechuga, Yolanda *Univ. of Cantabria*; Allende, Miguel A. *Univ. of Cantabria*; Martinez, Mar *Univ. of Cantabria*
- 10:00-11:30 ThBPoT10.9
3D Velocity Field Characterization of Prosthetic Heart Valve with Two Different Valve Testers by Means of Stereo-PIV
 D'Avenio, Giuseppe* *Istituto Superiore di Sanità*; Grigioni, Mauro *Istituto Superiore di Sanità*; Daniele, Carla *Istituto Superiore di Sanità*; Morbiducci, Umberto *Politecnico di Torino*; Hamilton, Kathrin *Helmholtz-Institute, Aachen*
- ThBPoT11: 10:00-11:30 Gold Room
5.13 Heart Rate Variability (Poster Session)
- 10:00-11:30 ThBPoT11.1
Towards an Objective Measurement of Emotional Stress: Preliminary Analysis based on Heart Rate Variability
 Arza Valdés, Adriana* *Autonomous Univ. of Barcelona*; Garzón Rey, Jorge Mario *Univ. Autònoma de Barcelona*; Hemando, Alberto *Univ. of Zaragoza*; Aguilo, Jordi *School of Engineering, Autonomous Univ. of Barcelona.*; Bailon, Raquel *Univ. of Zaragoza*
- 10:00-11:30 ThBPoT11.2
Statistical Assessment of Performance of Algorithms for Detrending RR Series
 Fasano, Antonio* *Univ. Campus Bio-Medico di Roma*; Villani, Valeria *Univ. degli Studi di Modena e Reggio Emilia*

- 10:00-11:30 ThBPoT11.3
Concomitant Dynamic Changes in Autonomic Nervous System Function and Nasal Airflow Resistance during Allergen Provocation
 Seppänen, Tiina Maarit* *Univ. of Oulu*; Alho, Olli-Pekka *Univ. of Oulu*; Seppänen, Tapio *Univ. of Oulu*
- 10:00-11:30 ThBPoT11.4
Correlation between Autonomous Function and Left Ventricular Performance after Acute Myocardial Infarction
 Cabiddu, Ramona* *Cardiopulmonary Physiotherapy Laboratory, Federal Univ. of Trimer*, Renata *Cardiopulmonary Physiotherapy Laboratory, Federal Univ. of Italiano Monteiro*, Clara *Cardiopulmonary Physiotherapy Laboratory, Federal Univ. of Borghi-Silva*, Audrey *Cardiopulmonary Physiotherapy Laboratory, Federal Univ. of Trimer*, Vitor *Cardiopulmonary Physiotherapy Laboratory, Federal Univ. of de Carvalho*, Paulo *Univ. of Coimbra - NIF*; Rocha, Teresa *Inst Superior de Eng de Coimbra*; Paredes, Simao *Instituto Politécnico de Coimbra*; Bianchi, Anna Maria *Politecnico di Milano*; Henriques, Jorge *Univ. of Coimbra - NIF*
- 10:00-11:30 ThBPoT11.5
Alignment of R-R Interval Signals using the Circadian Heart Rate Rhythm
 Gayraud, Nathalie Therese Helene *Univ. of Ioannina*; Manis, George* *Univ. of Ioannina*
- ThBPoT12: 10:00-11:30 Gold Room
6.32 Sensory Neuroprostheses II (Poster Session)
- 10:00-11:30 ThBPoT12.1
Degeneration Stage-Specific Response Pattern of Retinal Ganglion Cell Spikes in Rd10 Mouse Retina
 Park, Dae-jin *Chungbuk national Univ.*; Senok, Solomon *Alfaisal Univ.*; Goo, Yong Sook* *Chungbuk Nati Univ School of Medicine*
- 10:00-11:30 ThBPoT12.2
Fabrication and Functional Demonstration of a Smart Electrode with a Built-In CMOS Microchip for Neural Stimulation of a Retinal Prosthesis
 Noda, Toshihiko* *Nara Institute of Science and Tech.*; Fujisawa, Takumi *Nara Institute of Science and Tech.*; Kawasaki, Ryohei *Nara Institute of Science and Tech.*; Tashiro, Hiroyuki *Kyushu Univ.*; Takehara, Hiroaki *Nara Institute of Science and Tech.*; Sasagawa, Kiyotaka *Nara Institute of Science and Tech.*; Tokuda, Takashi *Nara Institute of Science and Tech.*; Ohta, Jun *Nara Institute of Science and Tech.*
- 10:00-11:30 ThBPoT12.3
Electrically Evoked Potentials in an Ovine Model for the Evaluation of Visual Prosthesis Efficacy
 Barriga-Rivera, Alejandro* *Univ. of New South Wales*; Eiber, Calvin D. *Univ. of New South Wales*; Dodds, Christopher William Douglas *Univ. of New South Wales*; Fung, Adrian *Australian School of Advanced Medicine, Macquarie Univ.*; Tatarinoff, Veronica *Graduate School of Biomedical Engineering, The Univ. of New*; Lovell, Nigel H. *Univ. of New South Wales*; Suaning, Gregg *The Univ. of New South Wales*
- 10:00-11:30 ThBPoT12.4
Patch Clamp Recordings of Retinal Bipolar Cells in Response to Extracellular Electrical Stimulation in Wholmount Mouse Retina
 Walston, Steven *Univ. of S. California*; Chow, Robert *Univ. of S. California*; Weiland, James* *Univ. of S. California*
- 10:00-11:30 ThBPoT12.5
Towards Determining the Afferent Sites of Perception Feedback on Residual Arms of Amputees with Transcutaneous Electrical Stimulation
 Wang, Hui *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*; Fang, Peng *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*; Tian, Lan *Shenzhen Institutes of Advanced Technology, Chinese Academy of*; Zheng, Yue *ShenZhen Institutes of Advanced Technology, Chinese Academy of S*; Zhou, Hui *Shenzhen Institute of Advanced Technology*; Li, Guanglin* *Shenzhen Institutes of Advanced Technology*; Zhang, Xiufeng *National Research Center for Rehabilitation Technical Aids*
- 10:00-11:30 ThBPoT12.6
A Wearable Mobility Device for the Blind using Retina-Insired Dynamic Vision Sensors
 Ghaderi, Viviane* *Univ. of Southern California*; Mulas, Marcello *Technische Univ. München*; Santos Pereira, Vinicius Felisberto *Technische Univ. München*; Everding, Lukas *Technische Univ. München*; Weikersdorfer, David *Google, Inc.*; Conradt, Jorg *Technische Univ. München*
- 10:00-11:30 ThBPoT12.7
Investigating the Feasibility of EVestG Assessment for Screening Concussion
 Suleiman, Abed* *Univ. of Manitoba*; Lithgow, Brian *Univ. of Manitoba*; Mansouri, Behzad *Univ. of Manitoba*; Moussavi, Zahra *Univ. of Manitoba*
- 10:00-11:30 ThBPoT12.8
Semantic Labelling to Aid Navigation in Prosthetic Vision
 Horne, Lachlan* *National ICT Australia*; Alvarez, Jose *NICTA*; McCarthy, Chris *NICTA*; Barnes, Nick *NICTA Canberra Research Laboratory*
- ThBPoT13: 10:00-11:30 Gold Room
6.33 Neural Stimulation II (Poster Session)
- 10:00-11:30 ThBPoT13.1
Effects of Electrode Size and Spacing on Sensory Modalities in the Phantom Thumb Perception Area for the Forearm Amputees
 Li, Peng *Shanghai Jiao Tong Univ.*; Chai, Guohong *Shanghai Jiao Tong Univ.*; Zhu, Kaihua *Shanghai Jiao Tong Univ.*; Lan, Ning *Shanghai Jiao Tong Univ.*; Sui, Xiaohong* *Shanghai Jiao Tong Univ.*
- 10:00-11:30 ThBPoT13.2
A New Handheld Electromagnetic Cortical Stimulator for Brain Mapping during Open Skull Neurosurgery: A Feasibility Study
 Buzzi, Jacopo *Politecnico di Milano*; De Momi, Elena *Politecnico di Milano*; Baratelli, Francesco Maria *Politecnico di Milano*; Giacometti, Marco *Politecnico di Milano*; Fiocchi, Serena *Consiglio Nazionale delle Ricerche CNR*; Parazzini, Marta *Consiglio Nazionale delle Ricerche*; Ravazzani, Paolo *CNR*; Ferrigno, Giancarlo* *Politecnico di Milano*
- 10:00-11:30 ThBPoT13.3
Interfacing in Silico and in Vitro Neuronal Networks
 Bruzzone, Arianna *Univ. di Genova*; Pasquale, Valentina *Istituto Italiano di Tecnologia*; Nowak, Przemyslaw *Univ. of Genoa*; Tessadori, Jacopo *IIT - Italian Institute of Technology*; Massobrio, Paolo *Univ. of Genova*; Chiappalone, Michela* *Italian Institute of Technology*
- 10:00-11:30 ThBPoT13.4
Optimization of a Wearable Pudendal Nerve Stimulator using Computational Models
 Nasrollahy Shiraz, Arsam* *Univ. College London*; Leaker, Brian *Nephro Urology Clinical Trials Unit (NUCT) Ltd.*; Demosthenous, Andreas *Univ. College London*
- 10:00-11:30 ThBPoT13.5
Corticospinal Excitability Changes to Anodal TDCS Elucidated with NIRS-EEG Joint-Imaging: An Ischemic Stroke Study
 Jindal, Utkarsh* *International Institute of Information Technology, Hyderabad*; Sood, Mehak *International Institute of Information Technology, Hyderabad*; Roy Chowdhury, Shubhajit *International Institute of Information Technology, Hyderabad*; Das, Abhijit *Institute of Neurosciences Kolkata*; Kondziella, Daniel *Rigshospitalet, Denmark and Norwegian Univ. of Science and*; Dutta, Anirban *INRIA*
- 10:00-11:30 ThBPoT13.6
A Comparison between Block and Smooth Modeling in Finite Element Simulations of TDCS
 Indahlastari, Aprinda *Arizona State Univ.*; Sadleir, Rosalind* *Arizona State Univ.*

- 10:00-11:30 ThBPoT13.7
Spatially Distributed Sequential Array Stimulation of Tibial Anterior Muscle for Foot Drop Correction
 Zhou, Hui *Shenzhen Institute of Advanced Technology*; Wang, Yingying *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*; Chen, Wanzhen *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*; Zhang, NanXin *Shenzhen institutes of Advanced Technology, Chinese Academy of Sc*; Krundel, Ludovic *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*; Li, Guanglin* *Shenzhen Institutes of Advanced Technology*
- 10:00-11:30 ThBPoT13.8
Fiber Size-Selective Stimulation using Action Potential Filtering for a Peripheral Nerve Interface: A Simulation Study
 Rapeaux, Adrien* *Imperial College London*; Nikolic, Konstantin *Imperial College London*; Williams, Ian *Centre for Bio-Inspired Technology, Dept. of Electrical and E*; Eftekhari, Amir *Imperial College*; Constantinou, Timothy *Imperial College of Science, Technology and Medicine*
- 10:00-11:30 ThBPoT13.9
Fabrication and Characterization of Stimulus Nerve Cuff Electrode with Highly Roughened Surface for Chronic Implant
 Lee, Yi Jae *Korea Institute of Science and Technology*; Song, Kang-Il *Korea Institute of Science and Technology*; Kang, Ji Yoon *Korea Institute of Science and Tech*; Lee, Soo Hyun* *Korea Institute of Science and Technology*
- 10:00-11:30 ThBPoT13.10
Iterative Electrodes Increase Neural Recruitment for Deep Brain Stimulation
 Wei, Xuefeng* *The College of New Jersey*; Iyengar, Naina *The College of New Jersey*; DeMaria, Andrew *The College of New Jersey*
- 10:00-11:30 ThBPoT13.11
Wrist Rigidity Assessment during Deep Brain Stimulation Surgery
 Costa, Pedro *Faculdade de Engenharia da Univ. do Porto*; Rosas, Maria José S. *João Univ. Hospital*; Vaz, Rui S. *João Univ. Hospital*; Cunha, João Paulo Silva* *Univ. of Porto and INESC TEC*
- 10:00-11:30 ThBPoT13.12
Long-Term Detection of Parkinsonian Tremor Activity from Subthalamic Nucleus Local Field Potentials
 Houston, Brady* *Univ. of Washington*; Blumenfeld, Zachary *Stanford Univ.*; Quinn, Emma *Stanford Univ.*; Bronte-Stewart, Helen *Stanford Univ.*; Chizeck, Howard *Univ. of Washington*
- 10:00-11:30 ThBPoT13.13
Therapeutic Effects of Functional Electrical Stimulation on Motor Cortex in Children with Spastic Cerebral Palsy
 Mukhopadhyay, Rupsha *Indian Institute of Technology, Kharagpur*; Mahadevappa, Manjunatha* *Indian Institute of Technology Kharagpur*; Prasanna, Lenka *National Institute for the Orthopaedically Handicapped*; Biswas, Abhishek *National Institute for the Orthopaedically Handicapped*
- 10:00-11:30 ThBPoT13.14
Removal of Transcranial A.C. Current Stimulation Artifact from Simultaneous EEG Recordings by Superposition of Moving Averages
 Kohli, Siddharth* *The Univ. of Manchester*; Casson, Alexander James *The Univ. of Manchester*
- 10:00-11:30 ThBPoT13.15
A Fast Stimulability Screening Protocol for Neuronal Cultures on Microelectrode Arrays
 Kapucu, Fikret Emre* *Tampere Univ. of Technology*; Tanskanen, Jarno M. A. *Tampere Univ. of Technology*; Yuting, Yuan *Tampere Univ. of Technology*; Hyttinen, Jari *Tampere Univ. of Technology*
- 10:00-11:30 ThBPoT13.16
Optimization of Parkinson Disease Treatment Combining Anti-Parkinson Drugs and Deep Brain Stimulation using Patient Diaries
 Schneider, Jakub* *Czech Technical Univ. in Prague*; Novak, Daniel *Czech Technical Univ. in Prague*; Jech, Robert *First Faculty of Medicine, Charles Univ.*
- 10:00-11:30 ThBPoT13.17
Bioimpedance Spectroscopy Method for Investigating Changes to Intracranial Dose during Transcranial Direct Current Stimulation
 Caytak, Hershel *Univ. of Ottawa*; Nejadgholi, Isar *Univ. of Ottawa*; Batkin, Izmail *Ottawa Univ.*; Bolic, Miodrag* *Univ. of Ottawa*
- ThBPoT14: 10:00-11:30 Gold Room
6.34 Motor Learning, Neural Control, and Neuromuscular Systems II (Poster Session)
- 10:00-11:30 ThBPoT14.1
Effect of Handedness on Muscle Synergies during Upper Limb Planar Movements
 Duthilleul, Nicolas *Ecole Polytechnique Federale de Lausanne*; Pirondini, Elvira *TNE - EPFL*; Coscia, Martina* *TNE Lab Ecole Polytechnique Federale de Lausanne*; Micera, Silvestro *Scuola Superiore Sant'Anna*
- 10:00-11:30 ThBPoT14.2
Effects of Prosthesis use on the Capability to Control Myoelectric Robotic Prosthetic Hands
 Atzori, Manfredo* *Univ. of Applied Sciences Western Switzerland (HES-SO Valai*; Mittaz Hager, Anne-Gabrielle *School of Health Sciences, Physiotherapy, Univ. of Applied*; Elsig, Simone *School of Health Sciences, Physiotherapy, Univ. of Applied*; Giatsidis, Giorgio *Clinic of Plastic Surgery, Padova Univ. Hospital*; Bassetto, Franco *Clinic of Plastic Surgery, Padova Univ. Hospital*; Müller, Henning *Univ. of Applied Sciences Western Switzerland (HES-SO)*
- 10:00-11:30 ThBPoT14.3
High Density EMG Investigation of H-Reflex Distribution Over the Soleus Muscle
 Botter, Alberto* *Politecnico di Torino*; Vazzoler, Ivan *Politecnico di Torino*; Vieira, Taian *Politecnico di Torino*
- 10:00-11:30 ThBPoT14.4
Does the Global Temporal Activation Differ in Triceps Surae during Standing Balance?
 Vieira dos Anjos, Fabio* *Politecnico di Torino*; Fontanella, Flavia *Politecnico di Torino*; Gazzoni, Marco *Politecnico di Torino*; Vieira, Taian *Politecnico di Torino*
- 10:00-11:30 ThBPoT14.5
Time to Boundary Function to Assess Upright Stance in Blind Children
 D'Anna, Carmen* *Roma TRE Univ. - Engineering Dept.*; Gazzellini, Simone *Bambino Gesù Children's Hospital*; Petrarca, Maurizio *Pediatric Hospital Bambino Gesù*; Vasco, Gessica *Bambino Gesù Children's Hospital*; Castelli, Enrico *Pediatric Hospital Bambino Gesù*; Schmid, Maurizio *Roma Tre Univ.*; Conforto, Silvia *Univ. Roma TRE*
- 10:00-11:30 ThBPoT14.6
Motor Control Strategies in the Bimanual Stabilization of an Unstable Virtual Tool
 Avila Mireles, Edwin Johnatan* *Istituto Italiano di Tecnologia*; De Santis, Dalia *Istituto Italiano di Tecnologia*; Squeri, Valentina *Istituto Italiano di Tecnologia*; Morasso, Pietro *Italian Institute of Technology*; Zenzeri, Jacopo *Istituto Italiano di Tecnologia*
- 10:00-11:30 ThBPoT14.7
Development of a Method to Quantify Inter-Limb Coupling in Individuals with Hemiparetic Stroke
 Hawe, Rachel* *Northwestern Univ.*; Dewald, Julius P. A. *Northwestern Univ.*

- 10:00-11:30 ThBPoT14.8
A Wearable Vibrotactile Device for Upper-Limb Bilateral Motion Training in Stroke Rehabilitation: A Case Study
 Hung, Chai-Ting* *The Univ. of British Columbia*; Croft, Elizabeth Anne *Univ. of British Columbia*; Van der Loos, H. F. Machiel *Univ. of British Columbia*
- 10:00-11:30 ThBPoT14.9
FNIRS Measure of Transitive and Intransitive Gesture Execution, Observation and Imagination in Ecological Setting: A Pilot Study
 Vanutelli, Maria Elide *Catholic Univ. of Milan*; Cortesi, Livia *Catholic Univ. of Milan*; Molteni, Erika* *Scientific Institute, IRCCS E. Medea*; Balconi, Michela *Catholic Univ. of Milan*
- 10:00-11:30 ThBPoT14.10
Phantom Movements from Physiologically Inappropriate Muscles: A Case Study with a High Transhumeral Amputee
 Gade, Julie *Aalborg Univ.*; Hugosdottir, Rosa *Aalborg Univ.*; Kamavuako, Ernest Nlandu* *Aalborg Univ.*
- 10:00-11:30 ThBPoT14.11
Muscle Fatigue Estimation with Twitch Force Derived from Semp Peaks
 Youngjin, Na *KAIST*; Lee, Hae-Dong *Yonsei Univ.*; Kim, Jung* *Korea Advanced Institute of Science and Technology*
- 10:00-11:30 ThBPoT14.12
Decomposing Time Series Data by a Non-Negative Matrix Factorization Algorithm with Temporally Constrained Coefficients
 Cheung, Vincent CK* *The Chinese Univ. of Hong Kong*; Devarajan, Karthik *Fox Chase Cancer Center, Philadelphia, PA, USA*; Severini, Giacomo *Harvard Medical School*; Turolla, Andrea *IRCCS San Camillo Hospital Foundation*; Bonato, Paolo *Harvard Medical School*
- 10:00-11:30 ThBPoT14.13
Intermittent Appearances of Saddle-Type Hyperbolic Dynamics during Human Stick Balancing on a Manually Controlled Cart
 Yoshikawa, Naoya* *Osaka Univ.*; Suzuki, Yasuyuki *Osaka Univ.*; Kiyono, Ken *Osaka Univ.*; Nomura, Taishin *Osaka Univ.*
- 10:00-11:30 ThBPoT14.14
A Computer Vision based Candidate for Functional Balance Test
 Nalci, Alican* *Univ. of California San Diego*; Khodamoradi, Alireza *Univ. of California San Diego*; Balkan, Ozgur *Univ. of California San Diego*; Nahab, Fatta *Univ. of California San Diego*; Garudadri, Harinath *Univ. of California, San Diego*
- 10:00-11:30 ThBPoT14.15
Analysis of Neck Muscle Activity and Comparison of Head Movement and Body Movement during Rotational Motion
 Sirikantharajah, Shahini *Ryerson Univ.*; Valter McConville, Kristiina M.* *Ryerson Univ.*; Zolfaghari, Nika *Ryerson Univ.*
- ThBPoT15: 10:00-11:30 Gold Room
7.5 Cell and Molecular Biotechnology II (Poster Session)
- 10:00-11:30 ThBPoT15.1
The Effect of Light-Emitting Diode Irradiation at Different Wavelengths on Calcification of Osteoblast-Like Cells in 3D Culture
 Chintavalakorn, Rochaya *King Mongkut's Univ. of Technology Thonburi*; Khantachawana, Anak* *King Mongkut's Univ. of Technology Thonburi*; Viravaidya-Pasuwat, Kwanchanok *King Mongkut's Univ. of Technology, Thonburi*; Tanglitanont, Tatsanee *Mahidol Univ.*; Santiwong, Peerapong *Mahidol Univ.*
- 10:00-11:30 ThBPoT15.2
Computational Tool for Morphological Analysis of Cultured Neonatal Rat Cardiomyocytes
 Leite, Maria Ruth *Univ. of São Paulo*; Cestari, Idagene *Heart Institute, Univ. of São Paulo*; Cestari, Ismar Newton* *Heart Institute (InCor) Univ. of São Paulo*
- 10:00-11:30 ThBPoT15.3
Efficacy of Ultrasound Mediated Microbubbles in Diclofenac Gel to Enhance Transdermal Permeation in Rheumatoid Arthritis Induced Rat
 Liao, Ai-Ho* *National Taiwan Univ. of Science and Technology*; Chuang, Ho-Chiao *National Taipei Univ. of Technology*
- ThBPoT16: 10:00-11:30 Gold Room
7.6 Novel Biomaterials Technologies (Poster Session)
- 10:00-11:30 ThBPoT16.1
Neuralization of Mouse Embryonic Stem Cells in Alginate Hydrogels under Retinoic Acid and SAG Treatment
 Delivopoulos, Evangelos* *Univ. of Reading*; Shakesheff, Kevin *Univ. of Nottingham*; Peto, Heather *Univ. of Nottingham*
- 10:00-11:30 ThBPoT16.2
Evaluation of the Repairing Effect of Collagen Type I and MaxGel on the Infarcted Myocardium in an Animal Model
 Neuta, Paola Andrea* *Univ. Autónoma de Occidente*; Rojas, Diana Marcela *Ghent Univ.*; Agredo, Wilfredo *Univ. Autónoma de Occidente*; Gutierrez, Jose Oscar *Univ. del Valle*
- 10:00-11:30 ThBPoT16.3
High Pressure Assessment of Bilayered Electrospun Vascular Grafts by Means of an Electroforce Biodynamic System®
 Armentano, Ricardo Luis* *Republic Univ., Favaloro Univ.*; Valdez Jasso, Daniela *Univ. of Illinois at Chicago (UIC)*; Cymberknop, Leandro Javier *Univ. Tecnológica Nacional*; Montini Ballarin, Florencia *Research Institute for Materials Science and Technology (INTEMA)*; Velez, Daniela *Univ. of Illinois at Chicago (UIC)*; Caracciolo, Pablo *INTEMA - Mar del Plata Univ.*; Abraham, Gustavo *Abel Research Institute for Materials Science and Technology (INTEMA)*
- 10:00-11:30 ThBPoT16.4
Massively-Multicellular Alignment with the Self-Aggregate of Air Bubbles
 Tanaka, Nobuyuki* *RIKEN*; Haraguchi, Yuji *Tokyo Women's Medical Univ.*; Shimizu, Tatsuya *Tokyo Women's Medical Univ.*; Yamato, Masayuki *Tokyo Women's Medical Univ.*; Okano, Teruo *Tokyo Women's Medical Univ.*; Miyake, Jun *Osaka Univ.*
- 10:00-11:30 ThBPoT16.5
Natural Magnetic Nanoparticle Containing Droplet for Smart Drug Delivery and Heat Treatment
 Lee, Suwon* *Univ. of Ulsan*; Ahn, Jae Hyun *Seoul National Univ.*; Choi, Hongsoo *DGIST*; Seo, Jong Mo *Seoul National Univ., School of Engineering*; Cho, Dong Il *Seoul National Univ.*; Koo, Kyoin *Univ. of Ulsan*
- 10:00-11:30 ThBPoT16.6
The Impact of Bone Microstructure on the Field Distribution of Electrostimulative Implants
 Zimmermann, Ulf* *Univ. of Rostock*; van Rienen, Ursula *Univ. of Rostock*
- ThBPoT17: 10:00-11:30 Gold Room
7.7 Tissue Engineering (Poster Session)
- 10:00-11:30 ThBPoT17.1
Controlling Cell Migration and Adhesion into a Scaffold by External Electric Currents
 Jaatinen, Leena* *Tampere Univ. of Technology*; Hyttinen, Jari *Tampere Univ. of Technology*; Voros, Janos *ETH Zurich*
- 10:00-11:30 ThBPoT17.2
On-Line Tracking of Living Cell Subjected to Cyclic Stretch
 Huang, Wenjing *Kyushu Institute of Technology*; Ahmad, Belal *Kyushu Institute of Technology*; Kawahara, Tomohiro* *Kyushu Institute of Technology*
- 10:00-11:30 ThBPoT17.3
Microengineered Embryonic Stem Cells Niche to Induce Neural Differentiation
 Joshi, Ramila *The Univ. of Akron*; Tavana, Hossein* *The Univ. of Akron*

- 10:00-11:30 ThBPoT17.4
Mimicking Biophysical Stimuli within Bone Tumor Microenvironment
 Marturano, Alessandro *Columbia Univ., Dept. of Biomedical Engineering*; Yeager, Keith *Columbia Univ.*; Bach, Daniel *The Cooper Union. Dept. of Mechanical Engineering*; Villasante, Aranzazu *Columbia Univ., Dept. of Biomedical Engineering*; Cimetta, Elisa* *Columbia Univ.*; Vunjak-Novakovic, Gordana *Columbia Univ.*
- 10:00-11:30 Gold Room
8.16 Rehabilitation and Assistive Technologies (Poster Session)
- 10:00-11:30 ThBPoT18.1
Real-Time Transmission of Panoramic Images for a Telepresence Wheelchair
 Ha, Van Kha Ly* *Univ. of Technology, Sydney*; Nguyen, Tuan Nghia *Univ. of Technology, Sydney*; Nguyen, Hung T. *Univ. of Technology, Sydney*
- 10:00-11:30 ThBPoT18.2
A Novel Target Following Solution for an Electric Powered Hospital Bed
 Nguyen, Huy Hoang* *Univ. of Technology Sydney*; Nguyen, Hung T. *Univ. of Technology, Sydney*; Nguyen, Tuan Nghia *Univ. of Technology, Sydney*; Clout, Raymond *Univ. of Technology, Sydney*
- 10:00-11:30 ThBPoT18.3
A Robotic Gait Training System Integrating Split-Belt Treadmill, Footprint Sensing and Synchronous EEG Recording for Neuro-Motor Recovery
 Liu, Yi-Hung* *National Taipei Univ. of Technology*; Zhang, Bo *Waseda Univ.*; Liu, Quanquan *Waseda Univ.*; Hsu, Wei-Chun *Graduate Institute of Biomedical Engineering, National Taiwan Un*; Hsiao, Yu-Tsung *National Taipei Univ. of Technology*; Su, Jui-Yiao *Industrial Technology Research Institute*; Kobayashi, Yo *Waseda Univ.*; Fujie, Masakatsu G. *Waseda Univ.*
- 10:00-11:30 ThBPoT18.4
Stiffness-Based Tuning of an Adaptive Impedance Controller for Robot-Assisted Rehabilitation of Upper Limbs
 Maldonado, Berenice *Univ. Autonoma de Nayarit*; Mendoza, Marco* *Univ. Autonoma de San Luis Potosi*; Bonilla, Isela *Univ. Autonoma de San Luis Potosi*; Reyna-Gutierrez, Ivan *Univ. Autonoma de San Luis Potosi*
- 10:00-11:30 ThBPoT18.5
Evaluation of Venous Return in Lower Limb by Passive Ankle Exercise Performed by PHARAD
 Yonezawa, Teru* *Tokyo Univ. of Science*; Nomura, Kenta *Tokyo Univ. of Science*; Onodera, Takayuki *Tokyo Univ. of Science*; Ichimura, Shiro *Tokyo Univ. of Science*; Takemura, Hiroshi *Tokyo Univ. of Science*; Mizoguchi, Hiroshi *Tokyo Univ. of Science*
- 10:00-11:30 ThBPoT18.6
A Tactile Handle for Cane use Monitoring
 Trujillo-León, Andrés *Univ. of Malaga*; Ady, Ragou *Univ. Pierre et Marie Curie*; Vidal-Verdu, Fernando *Univ. of Malaga*; Bachta, Wael* *Univ. Pierre et Marie Curie*
- 10:00-11:30 ThBPoT18.7
An Ecological Evaluation of the Metabolic Benefits Due to Robot-Assisted Gait Training
 Peri, Elisabetta *NEARlab, Dept. of Electronics, Information and bioengineeri*; Biffi, Emilia* *Scientific Institute Eugenio Medea, Bosisio Parini*; Cristina, Maghini *Scientific Institute Eugenio Medea, Bosisio Parini*; Marzorati, Mauro *National Research Council*; Diella, Eleonora *Scientific Institute Eugenio Medea, Bosisio Parini*; Pedrocchi, Alessandra *Politecnico di Milano*; Turconi, Anna Carla *Scientific Institute Eugenio Medea, Bosisio Parini*; Reni, Gianluigi *IRCCS*
- 10:00-11:30 ThBPoT18.8
Wrist Proprioceptive Acuity: A Comprehensive Robot-Aided Assessment
 Cappello, Leonardo *Istituto Italiano di Tecnologia*; Contu, Sara *NTU*; Konczak, Juergen *Univ. of Minnesota*; Masia, Lorenzo* *Nanyang Technological Univ.*
- 10:00-11:30 ThBPoT18.9
Preliminary Analysis of Non-Dominant Proprioceptive Acuity and Interlimb Asymmetry in the Human Wrist
 Contu, Sara *NTU*; Cappello, Leonardo *Istituto Italiano di Tecnologia*; Konczak, Juergen *Univ. of Minnesota*; Masia, Lorenzo* *Nanyang Technological Univ.*
- 10:00-11:30 ThBPoT18.10
An Intelligent Control Framework for Robot-Aided Resistance Training using Hybrid System Modeling and Impedance Estimation
 Xu, Guozheng *Nanjing Univ. of Posts and Telecommunications*; Guo, Xiaobo* *Anyang Institute of Technology*; Zhai, Yan *Anyang Institute of Technology*; Li, Huijun *Southeast Univ.*
- 10:00-11:30 ThBPoT18.11
Initial Investigation into the Effect of an Active/Passive Exoskeleton on Hammer Curl Performance in Healthy Subjects
 Matthew, Robert, Peter* *UC Berkeley*; Mica, Eric, John *UC Berkeley*; Meinhold, Waiman *UC Berkeley*; Loeza, Joel, Alfredo *UC Berkeley*; Tomizuka, Masayoshi *UC Berkeley*; Bajcsy, Ruzena *UC Berkeley, CITRIS*
- 10:00-11:30 ThBPoT18.12
Estimating EMG Signals to Drive NeuroMusculoSkeletal Models in Cyclic Rehabilitation Movements
 Tagliapietra, Luca* *Univ. of Padua*; Vivian, Michele *Univ. of Padua*; Sartori, Massimo *Univ. of Padova*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medic*; Reggiani, Monica *Univ. of Padova*
- ThBPoT19: 10:00-11:30 Gold Room
8.17 Biomimetic Robotics (Poster Session)
- 10:00-11:30 ThBPoT19.1
Beyond Astronaut's Capabilities: The Current State of the Art
 Gemignani, Jessica* *European Space Agency*; Gheysens, Tom *European Space Agency*; Summerer, Leopold *European Space Agency*
- 10:00-11:30 ThBPoT19.2
Design and Development of a Bio-Inspired, Under-Actuated Soft Gripper
 Shah, Syed Taimoor Hassan* *Scuola Superiore Sant'Anna, Pisa, Italy*; Manti, Mariangela *Scuola Superiore Sant'Anna, Pisa, Italy*; Passetti, Giovanni *Scuola Superiore Sant'Anna, the BioRobotics Institute*; D'Elia, Nicolò *The BioRobotics Institute, Scuola Superiore Sant'Anna, Pisa, Ita*; Cianchetti, Matteo *Scuola Superiore Sant'Anna*; Laschi, Cecilia *Scuola Superiore Sant'Anna*
- 10:00-11:30 ThBPoT19.3
A Biorobotic Model of the Human Larynx
 Manti, Mariangela* *Scuola Superiore Sant'Anna, Pisa, Italy*; Cianchetti, Matteo *Scuola Superiore Sant'Anna*; Nacci, Andrea *Otolaryngology Audiology and Phoniatric Unit, Univ. Hospita*; Ursino, Francesco *National Institute for Research in Phoniatrics, Univ. of Pi*; Laschi, Cecilia *Scuola Superiore Sant'Anna*
- 10:00-11:30 ThBPoT19.4
Self-Entrainment to Optimal Gaits of an Underactuated Biomimetic Swimming Robot using Adaptive Frequency Oscillators
 Alessi, Alessio* *Univ. Campus Bio-Medico di Roma*; Accoto, Dino *Campus Bio-Medico Univ.*; Guglielmelli, Eugenio *Campus Bio-Medico Univ.*
- 10:00-11:30 ThBPoT19.5
Magnetically Driven Microrobotic System for Cancer Cell Manipulation
 Lucarini, Gioia* *Scuola Superiore Sant'Anna*; Iacovacci, Veronica *Scuola Superiore Sant'Anna*; Ricotti, Leonardo *Scuola Superiore Sant'Anna*; Comisso, Nicola *Institute for Energetics and Interphases-CNR*; Dario, Paolo *Scuola Superiore Sant'Anna*; Mencucci, Arianna *Scuola Superiore Sant'Anna*

ThBPoT20: 10:00-11:30 Gold Room
8.18 Image Guided Surgery (Poster Session)

10:00-11:30 ThBPoT20.1
Anticipation of Brain Shift in Deep Brain Stimulation Automatic Planning

Hamzé, Noura* *ICube, Univ. of Strasbourg*; Bilger, Alexandre *Univ. of Luxembourg*; Duriez, Christian *INRIA*; Cotin, Stephane *Inria*; Essert, Caroline *ICube - Univ. de Strasbourg*

10:00-11:30 ThBPoT20.2
Planning Screw Insertion Trajectory in Lumbar Spinal Fusion using Pre-Operative CT Images

Ahmadian, Alireza* *Tehran Univ. of Medical Sciences*; Daemi, Najmeh *Tehran Univ. of Medical Sciences, Biomedical Engineering De*; Mirbagheri, Alireza *Tehran Univ. of Medical Sciences (TUMS)*; Ahmadian, Amirhossein *Sharif Univ. of Technology*; Saberi, Hooshang *Imam hospital, Research Center for Science and Technology in Med*; Amidi, Fardin *Tehran Univ. of medical science*; Alirezaie, Javad *Ryerson Univ., Univ of Waterloo*

10:00-11:30 ThBPoT20.3
Shoulder-Mounted Robot for MRI-Guided Arthrography: Accuracy and Mounting Study

Monfaredi, Reza* *Children's National Health System*; Wilson, Emmanuel *Children's National Medical Center, SZI*; Sze, Raymond *Children's National Medical Center, SZI*; Sharma, Karun *Children's National Medical Center*; Azizi, Bamshad *Children's National Health System*; lordachita, Lulian *Johns Hopkins Univ.*; Cleary, Kevin *Children's National Medical Center*

ThBPoT21: 10:00-11:30 Gold Room
11.2 BME and Global Health (Poster Session)

10:00-11:30 ThBPoT21.1
Enhancing Professionalism among Engineering Students through Involvements in Technical Societies

Ghosh, Sreejita* *Univ. of Groningen*; Samineni, Anvesh *VIT Univ., Vellore*; Mandal, Subhamoy *TU München and Helmholtz Zentrum München*; Murari, Bhaskar Mohan *VIT Univ., Vellore*

10:00-11:30 ThBPoT21.2
Walking Cycle Control for an Active Ankle Prosthesis with one Degree of Freedom Monitored from a Personal Computer

Guzhñay Cordero, Andrés Esteban *Univ. Politécnica Salesiana*; Calle Arévalo, Luis Alfredo *Univ. Politécnica Salesiana*; Zambrano Abad, Julio César* *Univ. Politécnica Salesiana*

ThBPoT22: 10:00-11:30 Gold Room
11.3 Instruction and Learning (Poster Session)

10:00-11:30 ThBPoT22.1
Complete Factorial Design Experiment for 3D Load Cell Instrumented Crank Validation

Valle-Casas, Omar *UFRGS*; Dalazen, Rafael *UFRGS*; Balbinot, Alexandre *Federal Univ. of Rio Grande do Sul (UFRGS)*; Cene, Vinicius H.* *UFRGS*

10:00-11:30 ThBPoT22.2
An Assessment Strategy for Proposals of Engineering Projects in the Bachelor of Biomedical Engineering Curriculum at Universidad Autónoma Metropolitana-Iztapalapa

Castaneda-Villa, Norma* *Univ. Autónoma Metropolitana-Izt*; Jimenez-Gonzalez, Aida *Univ. Autonoma Metropolitana-Iztapalapa*; Ortiz-Posadas, Martha R. *Univ. Autónoma Metropolitana*

10:00-11:30 ThBPoT22.3
Closed Loop Control of a Robot Assisted Smart Flexible Needle for Percutaneous Intervention

Maria Joseph, Felix Orlando* *Case Western Reserve Univ.*; Podder, Tarun *UH - Case Western Reserve Univ.*

10:00-11:30 ThBPoT22.4
Student Teaching and Research Laboratory Focusing on Brain-Computer Interface Paradigms – Creative Environment for Computer Science Students

Rutkowski, Tomasz* *Univ. of Tsukuba*

10:00-11:30 ThBPoT22.5
Instrumented and Interactive Limb Models for Biomechanics Education: An Assessment of Efficacy and Engagement

Sulas, Romina *UNSW*; Liem, Nicholas *UNSW*; Kark, Lauren* *Graduate School of Biomedical Engineering*,

10:00-11:30 ThBPoT22.6
Italy-Japan International Project-Based Learning for Developing Human Resources using Design of Welfare Equipment as a Subject

Hanafusa, Akihiko* *Shibaura Institute of Technology*; Komeda, Takashi *Shibaura Institute of Technology*; Ito, Kazuhisa *Shibaura Institute of Technology*; Zobel, Pierluigi *Beomonte Univ. of L'Aquila*

ThBPoT23: 10:00-11:30 Gold Room
11.4 Novel Approaches to Biomedical Engineering Education (Poster Session)

10:00-11:30 ThBPoT23.1
Surviving Sepsis – A 3D Integrative Educational Simulator

Ježek, Filip* *Faculty of Electrical Engineering, Czech Technical Univ. in Prague*; Tribula, Martin *Charles Univ.*; Kulhánek, Tomáš *Charles Univ.*; Matejak, Marek *Charles Univ.*; Privitzer, Pavol *Charles Univ.*; Šilar, Jan *Charles Univ.*; Kofránek, Jiří *Creative Connections s.r.o.*; Lhotska, Lenka *Czech Technical Univ. in Prague*

10:00-11:30 ThBPoT23.2
Experiences in Teaching of Modeling and Simulation with Emphasize on Equation based and Acausal Modeling Techniques

Kulhánek, Tomáš* *Academy of Performing Arts in Prague*; Ježek, Filip *Czech Tech. Univ. in Prague*; Matejak, Marek *Charles Univ.*; Šilar, Jan *Charles Univ.*; Kofránek, Jiří *Creative Connections s.r.o.*

10:00-11:30 ThBPoT23.3
Opening Biomedical Engineering Education in Africa

Ahluwalia, Arti* *Pisa Univ.*

10:00-11:30 ThBPoT23.4
Experimental and Credentialing Capital: An Adaptable Framework for Facilitating Science Outreach for Underrepresented Youth

Drazan, John* *Rensselaer Polytechnic Institute*; D'Amato, Anthony *Rensselaer Polytechnic Institute*; Winkelman, Max *Rensselaer Polytechnic Institute*; Littlejohn, Aaron James *Rensselaer Polytechnic Institute*; Johnson, Christopher *Rensselaer Polytechnic*; Ledet, Eric *Rensselaer Polytechnic Institute*; Eglash, Ron *RPI*

10:00-11:30 ThBPoT23.5
A Virtual Surgical Training System that Simulates Cutting of Soft Tissue using a Modified Pre-Computed Elastic Model

Toe, Kyaw Kyar* *Institute for Infocomm Research, A*STAR*; Huang, Weimin *Institute for Infocomm Research, Agency for Science Tech. and*; Yang, Tao *Institute of Infocomm Research*; Duan, Yuping *Institute for Infocomm Research, A*STAR*; Zhou, Jiayin *Institute for Infocomm Research*; Su, Yi *Institute of High Performance Computing*; Teo, Soo Kng *Institute of High Performance Computing, A*STAR*; Selvaraj, Senthil Kumar *Institute of High Performance Computing*; Lim, Calvin *Institute of High Performance Computing*; Chui, Chee Kong *National Univ. of Singapore*; Chang, Stephen *KY National Univ. of Singapore*

ThBPoT24: 10:00-11:30 Gold Room
12.5 Gerontechnology (Poster Session)

10:00-11:30 ThBPoT24.1
Early Illness Recognition using Frequent Motif Discovery

Hajihashemi, Zahra *Univ. of Missouri, Columbia, MO*; Popescu, Mihail* *Univ. of Missouri*

10:00-11:30 ThBPoT24.2
Preliminary Results of using Inertial Sensors to Detect Dementia-Related Wandering Patterns

Vuong, Nhu Khue* *NTU*; Chan, Syin *Nanyang Technological Univ.*; Lau, Chiew Tong *Nanyang Technological Univ.*; Chan, Yew Wei *Stephen Alzheimer's Disease Association of Singapore*; Chen, SH *Annabel Nanyang Technological Univ.*; Yap, Philip *Khoo Teck Puat Hospital*

10:00-11:30	ThBPoT24.3	Slightly Superior Performance of Bioimpedance Spectroscopy Over Single Frequency Regression Equations for Assessment of Total Body Water Seoane, Fernando <i>KTH-Royal Institute of Technology</i> ; Abtahi, Shirin <i>Chalmers Univ. of Technology</i> ; Abtahi, Farhad* <i>KTH Royal Institute of Technology</i> ; Ellegård, Lars <i>Dept. of clinical nutrition at the Univ. of Göteborg</i> ; Johannsson, Gudmundur <i>Dept. of clinical nutrition at the Univ. of Göteborg</i> ; Ingvar, Bosaeus <i>Dept. of clinical nutrition at the Univ. of Göteborg</i> ; Ward, Leigh C. <i>School of Chemistry and Molecular Biosciences, Univ. of Que</i>	13:15-13:30	ThDT1.3	Automated Sleep Analysis Acherermann, Peter* <i>Univ. of Zurich</i> ; Malafeev, Alexander <i>Univ. of Zurich</i> ; Skorucak, Jelena <i>Univ. of Zurich</i> ; Tarokh, Leila <i>Univ. of Bern</i>
10:00-11:30	ThBPoT24.4	Extraction of Facial Features as Indicators of Stress and Anxiety Pediaditis, Matthew* <i>ICS-FORTH</i> ; Giannakakis, Giorgos <i>Institute of Computer Science (ICS), Foundation for Research and</i> ; Chiarugi, Franco <i>Foundation for Research and Technology - Hellas (FORTH)</i> ; Manousos, Dimitris <i>ICS-FORTH</i> ; Pampouchidou, Anastasia <i>Institute of Computer Science (ICS), FORTH</i> ; Christinaki, Eirini <i>ICS-FORTH</i> ; Iatraki, Galatea <i>ICS-FORTH</i> ; Kazantzaki, Eleni <i>Institute of Computer Science (ICS), FORTH</i> ; Simos, Panagiotis <i>Dept. of Psychiatry, Univ. of Crete</i> ; Marias, Kostas <i>Foundation for Res. & Tech. Hellas</i> ; Tsinakis, Manolis <i>ICS-FORTH</i>	13:30-13:45	ThDT1.4	Nonintrusive Sleep Monitoring Park, Kwang S.* <i>Seoul National Univ.</i> ; Hwang, Suhwan <i>Seoul National Univ.</i> ; Jung, Dawoon <i>Seoul National Univ.</i> ; Yoon, Heenam <i>Seoul National Univ.</i>
ThBPoT25: 10:00-11:30	Gold Room	12.6 Technologies for Detecting, Managing and Preventing Falls II (Poster Session)	ThDT2: 12:45-14:15	Brown 2	10.M1 Big Data for Understanding and Modelling of Health Behaviors (Minisymposium) Chair: Korhonen, Ilkka <i>Tampere Univ. of Technology</i> Co-Chair: Tamura, Toshiyo <i>Osaka Electro-Communication Univ.</i>
10:00-11:30	ThBPoT25.1	Extraction of Traditional COP-Based Features from COM Sway in Postural Stability Evaluation Romano, Fausto <i>Univ. of Pavia</i> ; Colagiorgio, Paolo <i>Univ. of Pavia</i> ; Buizza, Angelo <i>Univ. of Pavia</i> ; Sardi, Francesca <i>Univ. of Pavia</i> ; Ramat, Stefano* <i>Univ. di Pavia</i>	12:45-13:00	ThDT2.1	Detection of Indiscernible Information from Daily Physiological Data Over a Long-Term Period Chen, Wenxi* <i>Univ. of Aizu</i> ; Tamura, Toshiyo <i>Osaka Electro-Communication Univ.</i>
10:00-11:30	ThBPoT25.2	Continuous Real-World Gait Monitoring in Community-Based Older Adults Walsh, Lorcan <i>Novartis</i> ; Doyle, Julie* <i>CASALA, Dundalk Institute of Technology</i> ; Smith, Erin <i>College Dublin</i> ; Inomata, Akihiro <i>Fujitsu Japan</i> ; Bond, Rodd <i>Netwell Centre, Dundalk Institute of Technology</i>	13:00-13:15	ThDT2.2	Association between Physical Activity and Blood Pressure through Objective Measurements: Results from Connected Devices Chieh, Angela <i>Withings</i> ; Brouard, Benoit* <i>Withings</i> ; Menai, Mehdi <i>Paris 13 Univ.</i>
10:00-11:30	ThBPoT25.3	FreeWalker: A Smart Insole for Longitudinal Gait Analysis Wang, Baitong <i>National Univ. of Singapore</i> ; Rajput, Kuldeep Singh* <i>National Univ. of Singapore</i> ; Tam, Wing Kin <i>National Univ. of Singapore</i> ; Yang, Zhi <i>National Univ. of Singapore</i>	13:15-13:30	ThDT2.3	Toward Quantification of Mind Activity for Lifestyle Modification and Vital Control Nakajima, Hiroshi* <i>Omron Corporation</i> ; Shiga, Toshikazu <i>Omron Healthcare Co., Ltd.</i>
10:00-11:30	ThBPoT25.4	Fall-Detection Solution for Mobile Platforms using Accelerometer and Gyroscope Data De Cillis, Francesca* <i>Univ. Campus Bio-Medico di Roma</i> ; De Simio, Francesca <i>Univ. Campus Bio-Medico di Roma</i> ; Guido, Floriana <i>Univ. Campus Bio-Medico di Roma</i> ; Antonelli Incalzi, Raffaele <i>Univ. Campus Bio-Medico di Roma</i> ; Setola, Roberto <i>Univ. CAMPUS Bio-Medico</i>	13:30-13:45	ThDT2.4	Casual Analysis between Blood Pressure and Influential Factors Shiga, Toshikazu* <i>Omron Healthcare Co., Ltd.</i> ; Nakajima, Hiroshi <i>Omron Corporation</i>
10:00-11:30	ThBPoT25.5	Robotic Psychophysics System for Assessment, Diagnosis and Rehabilitation of the Neurological causes of Falls in the Elderly Faisal, A. Aldo* <i>Imperial College London</i> ; Lin, Chin-Hsuan <i>Imperial College London</i>	13:45-14:00	ThDT2.5	The use of Wearable Sensor and Large-Scale Health Data for Understanding and Modeling Behaviors Helander, Elina* <i>Tampere Univ. of Technology</i> ; Pietilä, Julia <i>Tampere Univ. of Technology</i> ; Korhonen, Ilkka <i>Tampere Univ. of Technology</i>
ThDT1: 12:45-14:15	Brown 1	5.M5 Systems Physiology and Signal Analysis in Natural Sleep and Sleep Disorders I (Minisymposium) Chair: Khoo, Michael <i>University of Southern California</i> Co-Chair: Penzel, Thomas <i>Charite University Hospital</i>	14:00-14:15	ThDT2.6	Portable Health Clinic System for Adaptable Healthcare Rebeiro-Hargrave, Andrew* <i>Kyushu Univ.</i> ; Ahmed, Ashir <i>Associate Professor, Dept. of Advanced Information Technolo</i> ; Emran, Addulla <i>Kyushu Univ.</i>
12:45-13:00	ThDT1.1	Physiological Regulation during Sleep Amici, Roberto* <i>Univ. of Bologna</i>	ThDT4: 12:45-14:15	Amber 1	1.M1 Graph Analysis of Functional Brain Networks: Theory, Applications and Issues (Minisymposium) Chair: Chavez, Mario <i>CNRS UMR7225 Paris, France</i> Co-Chair: Astolfi, Laura <i>University of Rome Sapienza</i>
13:00-13:15	ThDT1.2	Probabilistic Models of Sleep Regulation based on EEG Signal Analysis Dorffner, Georg* <i>Medical Univ. of Vienna</i> ; Aydemir, Önder <i>Medical Univ. of Vienna</i>	12:45-13:00	ThDT4.1	Topological Changes of Functional Brain Networks in Healthy and Diseased Subjects De Vico Fallani, Fabrizio* <i>CRICM</i>
			13:00-13:15	ThDT4.2	Noise Robustness and Biases in FMRI Graph Estimation Richiardi, Jonas* <i>Univ. of Geneva</i>

ThDT5: 12:45-14:15 Amber 2
2.M2 Neuroimaging in Psychiatry (Minisymposium)
Chair: Brambilla, Paolo *University of Milan, Fondazione IRCCS Ospedale Maggiore Policlinico, Milan, Italy*
Co-Chair: Bertoldo, Alessandra *University of Padova*

12:45-13:00 ThDT5.1
Modulation of Hippocampal Glutamate in Response to Associative Learning: A Preliminary ¹H Functional MRS Study
Stanley, Jeffrey A.* *Wayne State Univ. School of Medicine;*
Diwadkar, Vaibhav *Wayne State Univ.*

13:00-13:15 ThDT5.2
Machine Learning Techniques Embodying Imaging, Psychopathological and Clinical Features for Classification of Pathologies
Castellani, Umberto* *Univ. of Verona*

13:15-13:30 ThDT5.3
Abnormal Effective Connectivity and Psychopathological Symptoms in the Psychosis High-Risk State
Borgwardt, Stefan* *UPK, Univ. of Basel*

ThDT6: 12:45-14:15 Amber 3
3.M1 Biomedical Technology in Space: Results from the Futura Mission of the Italian Space Agency (Minisymposium)
Chair: Di Rienzo, Marco *Fondazione Don Carlo Gnocchi*
Co-Chair: Pignataro, Salvatore *Italian Space Agency*

12:45-13:00 ThDT6.1
Blind&Imagined: Sensori-Motor Mechanism Changes in Long-Term Lack of Gravity
Casellato, Claudia* *Politecnico di Milano;* Pedrocchi, Alessandra *Politecnico di Milano;* Ferrigno, Giancarlo *Politecnico di Milano;* Zago, Myrka *Dept. of Neuromotor Physiology Fondazione Santa Lucia IRCCS;* Gravano, Silvio *Dept. of Neuromotor Physiology Fondazione Santa Lucia IRCCS;* Lacquaniti, Francesco *Dept. of Neuromotor Physiology Fondazione Santa Lucia IRCCS*

13:00-13:15 ThDT6.2
Wearable Monitoring: The Unobtrusive Investigation of Sleep Physiology in Microgravity by a Smart Garment
Di Rienzo, Marco* *Fondazione Don Carlo Gnocchi;* Lombardi, Prospero *Fondazione Don Carlo Gnocchi ONLUS;* Vaini, Emanuele *Polo Tecnologico, Fondazione Don Carlo Gnocchi;* Parati, Gianfranco *Univ. degli Studi di Milano-Bicocca;* Pignataro, Salvatore *Italian Space Agency*

13:15-13:30 ThDT6.3
Investigation of Cerebral Venous Outflow in Microgravity Conditions: The Drain Brain Project
Taibi, Angelo *Univ. of Ferrara;* Gadda, Giacomo* *Univ. of Ferrara;* Gambaccini, Mauro *Univ. of Ferrara;* Menegatti, Erica *Univ. of Ferrara;* Pignataro, Salvatore *Italian Space Agency;* Sisini, Francesco *Univ. of Ferrara;* Zamboni, Paolo *Univ. of Ferrara*

13:30-13:45 ThDT6.4
Biomedical Technology in Space: Results from the Futura Mission of the Italian Space Agency
Bertolotto, Delfina *Italian Space Agency;* Crisconio, Marino *Italian Space Agency;* Mascetti, Gabriele *Italian Space Agency;* Pignataro, Salvatore* *Italian Space Agency*

ThDT7: 12:45-14:15 Amber 4
5.M1 Latest Development of Cardiovascular Electroceuticals (Minisymposium)
Chair: Tank, Jens *Hannover Medical School*

12:45-13:00 ThDT7.1
Reasons for the Need of More Research in the Area of Device based Therapy in Resistant Hypertension
Tank, Jens* *Hannover Medical School;* Heusser, Karsten *Institute für Klinische Pharmakologie, Medizinische Hochschule Ha;* Jordan, Jens *Institute für Klinische Pharmakologie, Medizinische Hochschule Ha*

13:00-13:15 ThDT7.2
Closed Loop Neuromodulation in Cardiovascular Disease
Sunagawa, Kenji* *Kyushu Univ.;* Saku, Keita *Kyushu Univ.;* Hosokawa, Kazuya *Kyushu Univ. Hospital;* Oga, Yasuhiro *Kyushu Univ.*

13:15-13:30 ThDT7.3
Neurophysiology based Optimization of Stimulation Parameters for Cervical Vagus Nerve Stimulation
Hincapie, Juan Gabriel* *Boston Scientific Corp.;* Jason, Hamann *Boston Scientific Corp.;* Ruble, Stephen *Boston Scientific Corp.*

13:30-13:45 ThDT7.4
Vagus Nerve Stimulation in Heart Failure
De Ferrari, Gaetano M.* *Dept. of Molecular Medicine, Univ. of Pavia, and Depar;* Dusi, Veronica *Dept. of Molecular Medicine, Univ. of Pavia, and Depar*

ThDT8: 12:45-14:15 Amber 5
6.M1 Myoelectric Computer Interfaces in Neurophysiology and Rehabilitation (Minisymposium)
Chair: Slutzky, Marc *Northwestern University*
Co-Chair: Jackson, Andrew *Newcastle University*

12:45-13:00 ThDT8.1
Using a Myoelectric Computer Interface as a Treatment for Motor Impairment after Stroke
Mugler, Emily *Northwestern Univ.;* Lindberg, Eric W *Northwestern Univ.;* Slutzky, Marc* *Northwestern Univ.*

13:00-13:15 ThDT8.2
Exploring the Mechanisms of Motor Learning using Myoelectric-Computer Interfaces
Jackson, Andrew* *Newcastle Univ.;* Schofield, Claire Francis *Newcastle Univ.;* Nazarpour, Kianoush *Newcastle Univ.*

13:15-13:30 ThDT8.3
Effective Force Control with a Myoelectric Interface based on Muscle Synergies
Berger, Denise J *Fondazione Santa Lucia;* d'Avella, Andrea* *Univ. of Messina*

13:30-13:45 ThDT8.4
Mechanisms of EMG Biofeedback for Neuro-Rehabilitation
Sanger, Terence David* *Univ. of Southern California*

13:45-14:00 ThDT8.5
Facial sEMG Interfaces for Communication Access
Stepp, Cara* *Boston Univ.*

ThDT9: 12:45-14:15 Amber 6
7.M1 Bio-Instructive Scaffolds for Musculoskeletal Regenerative Medicine (Minisymposium)
Chair: Brown, Justin *The Pennsylvania State University*
Co-Chair: Kumbar, Sangamesh *The University of Connecticut*

12:45-13:00 ThDT9.1
Innovative Tendon Scaffold Design based on a Bioinstructive, Biomimetic, and Multiscale Approach
Banik, Brittany* *The Pennsylvania State Univ.;* Brown, Justin *The Pennsylvania State Univ.*

13:00-13:15 ThDT9.2
Tendon Regeneration – Biomimetic Scaffold, Stem Cells and Factors
James, Roshan* *Univ. of Connecticut Health Center*

13:15-13:30 ThDT9.3
Biophysical Cues and Their Role in Tissue Morphogenesis
Shastri, V. Prasad* *Univ. of Freiburg*

ThDT10: 12:45-14:15 8.M1 Bio-Hybrid Systems: Enabling Technologies for Quasi-Living Robots (Minisymposium) Chair: Ricotti, Leonardo <i>Scuola Superiore Sant'Anna</i> Co-Chair: Feinberg, Adam <i>Carnegie Mellon University</i>	Amber 7	13:45-14:00 Wearable Near Infrared Fluorescence Imaging System for Image Guided Surgery Gruev, Viktor* <i>Washington Univ. in St. Louis</i>	ThDT16.5
12:45-13:00 Advanced Microstructured Biomaterials Interfaced with Living Cells Fujie, Toshinori* <i>School of Advanced Science and Engineering, Waseda Univ.</i>	ThDT10.1	ThET1: 14:30-16:00 5.M6 Systems Physiology and Signal Analysis in Natural Sleep and Sleep Disorders II (Minisymposium) Chair: Khoo, Michael <i>University of Southern California</i> Co-Chair: Penzel, Thomas <i>Charite University Hospital</i>	Brown 1
13:00-13:15 Bio-Hybrid Actuators for Muscle-Powered Soft Robotics Duffy, Rebecca <i>Carnegie Mellon Univ.</i> ; Feinberg, Adam* <i>Carnegie Mellon Univ.</i>	ThDT10.2	14:30-14:45 Recent Developments in Heart Rate Variability Analysis during Sleep Bianchi, Anna Maria* <i>Politecnico di Milano</i> ; Mendez, Martin Oswaldo <i>Univ. Autonoma de San Luis Potosi</i> ; Migliorini, Matteo <i>Politecnico di Milano</i>	ThET1.1
13:15-13:30 Microchannel Networking as Enabling Technology for Upscale Applications of Bio-Hybrid Systems Lenardi, Cristina* <i>Univ. degli Studi di Milano</i>	ThDT10.3	14:45-15:00 Cyclic Alternating Pattern and Heart Rate Variability Parrino, Liborio* <i>Sleep Disorders Centre, Dept. of Neurology, Univ. of Pa</i> ; Milioli, Giulia <i>Sleep Disorders Centre, Dept. of Neurology, Univ. of P</i> ; Riccardi, Silvia <i>European Sleep Research</i> ; Puligheddu, Monica <i>Univ. di Cagliari</i> ; Mendez, Martin Oswaldo <i>Univ. Autonoma de San Luis Potosi</i>	ThET1.2
13:30-13:45 Bio-Hybrid Cell-Based Chemical Sensors Wang, Ping* <i>Zhejiang Univ.</i>	ThDT10.4	15:00-15:15 Beat-to-Beat Characterization of Cardiac Mechanics during Sleep Di Rienzo, Marco* <i>Fondazione Don Carlo Gnocchi</i> ; Lombardi, Prospero <i>Fondazione Don Carlo Gnocchi ONLUS</i> ; Vaini, Emanuele <i>Polo Tecnologico, Fondazione Don Carlo Gnocchi</i> ; Parati, Gianfranco <i>Univ. degli Studi di Milano-Bicocca</i>	ThET1.3
ThDT11: 12:45-14:15 4.M1 Methods, Technologies, and Scientific Principles of Translational Bioinformatics (Minisymposium) Chair: Riva, Alberto <i>University of Florida</i> Co-Chair: Di Camillo, Barbara <i>University of Padova</i>	Amber 8	15:15-15:30 Hypertension and Sleep Parati, Gianfranco* <i>Univ. degli Studi di Milano-Bicocca</i> ; Di Rienzo, Marco <i>Fondazione Don Carlo Gnocchi</i> ; Mattaliano, Paola <i>Istituto Auxologico Italiano</i> ; Mariani, Davide <i>Istituto Auxologico Italiano</i> ; Lombardi, Carolina <i>Istituto Auxologico Italiano</i>	ThET1.4
12:45-13:00 Systems Biology: A Multifaceted Approach to Reveal Disease Mechanisms Di Camillo, Barbara* <i>Univ. of Padova</i>	ThDT11.1	ThET2: 14:30-16:00 9.6 Wearable and Portable Devices (Oral Session)	Brown 2
13:00-13:15 Large-Scale Data Fusion Zitnik, Marinka <i>Univ. of Ljubljana</i> ; Zupan, Blaz* <i>Univ. of Ljubljana</i>	ThDT11.2	14:30-14:45 Characterization of Wrist-Wearable Activity Measurement using Whole Body Calorimetry in Semi-Free Living Conditions Amor, James* <i>Univ. of Warwick</i> ; Hattersley, John G. <i>UHCW/Univ. of Warwick</i> ; Barber, Thomas M. <i>Univ. of Warwick</i> ; James, Christopher <i>Univ. of Warwick</i>	ThET2.1
13:15-13:30 The Role of Bioinformatics in Translational Research Riva, Alberto* <i>Univ. of Florida</i>	ThDT11.3	14:45-15:00 Monitoring Physiology and Behavior using Android in Phobias Cruz, Telmo <i>IEETA, DETI, Univ. de Aveiro, Aveiro</i> ; Bras, Susana* <i>Univ. de Aveiro</i> ; Soares, Sandra <i>Univ. de Aveiro</i> ; Fernandes, José Maria <i>Univ. of Aveiro</i>	ThET2.2
ThDT16: 12:45-14:15 9.M1 Devices and Circuits for Man-Machine Interfaces (Minisymposium) Co-Chair: Thakor, Nitish <i>Johns Hopkins University</i>	White 2	15:00-15:15 Novel Textile Systems for the Continuous Monitoring of Vital Signals: Design and Characterization Trindade, Isabel* <i>FibEnTech, Univ. da Beira Interior</i> ; Martins, Frederico <i>FibEnTech, Univ. da Beira Interior</i> ; Dias, Rúben <i>INESC TEC, FEUP</i> ; Oliveira, Cristina <i>INESC TEC, FEUP</i> ; Machado da Silva, José <i>INESC TEC, FEUP</i>	ThET2.3
12:45-13:00 Computational Modeling in Medical Device Design Haemmerich, Dieter* <i>Medical Univ. of South Carolina</i>	ThDT16.1	15:15-15:30 Implementation of Smart Phone Video Plethysmography and Dependence on Lighting Parameters Fletcher, Richard Ribon* <i>Massachusetts Institute of Tech.</i> ; Chamberlain, Daniel <i>MIT</i> ; Paggi, Nicholas <i>Massachusetts Institute of Tech.</i> ; Deng, Xinyue <i>Massachusetts Institute of Tech.</i>	ThET2.4
13:00-13:15 High-Density 3D Microelectrode Arrays for Brain-Machine Interfaces Ghane-Motlagh, Bahareh* <i>Polytechnique Montreal</i> ; Choueib, May Claude Bernard <i>Univ.</i> ; Javanbakht, Taraneh <i>Univ. of Montreal</i> ; Shoghi, Fathemeh <i>Univ. de Montréal</i> ; Wilkinson, Kevin <i>Univ. of Montreal</i> ; Martel, Richard <i>Univ. de Montreal</i> ; Sawan, Mohamad <i>Polytechnique Montreal</i>	ThDT16.2		
13:15-13:30 In-Vivo Study of Cardiac Pressure-Volume Curves using Implantable RF Telemetry Fricke, Kyle <i>Western Univ.</i> ; Hodgson, Chad <i>Transonic, London, ON</i> ; Konecny, Filip <i>Transonic, London ON</i> ; El Warrak, Alexander <i>Animal Care and Veterinary Services, Western Univ., Canada</i> ; Cadieux-Pitre, Heather <i>Animal Care and Veterinary Services, Western Univ.</i> ; Hill, Tracy <i>Animal Care and Veterinary Services, Western Univ., Canada</i> ; Sobot, Robert* <i>Western Univ., Canada/ENSEA, France</i>	ThDT16.3		
13:30-13:45 Paper based Biomedical Diagnostics and Therapy for Resource Limited Settings Sonkusale, Sameer* <i>Tufts Univ.</i>	ThDT16.4		

15:30-15:45 ThET2.5
Unconstrained Detection of Freezing of Gait in Parkinson's Disease Patients using Smartphone
 Kim, Hanbyul* *Seoul National Univ.*; Lee, Hong Ji *Seoul National Univ.*; Lee, Woongwoo *Dept. of Neurology, Eulji General Hospital*; Kwon, Sungjun *Seoul National Univ.*; Kim, Sang Kyong *Seoul National Univ.*; Jeon, Hyo Seon *Seoul National Univ.*; Park, Hyeoung *Dept. of Neurology and Movement Disorder Center, Seoul Natl*; Shin, Chae Won *Dept. of Neurology and Movement Disorder Center, Seoul Natl*; Yi, WonJin *Seoul National Univ Sch of Dentistry*; Jeon, Beom S. *Seoul National Univ.*; Park, Kwang S. *Seoul National Univ.*

15:45-16:00 ThET2.6
ARTSENSTouch – A Portable Device for Evaluation of Carotid Artery Stiffness
 Joseph, Jayaraj* *HTIC, Indian Institute of Technology*; T, Aryasree *Healthcare Technology Innovation Centre, IIT Madras*; Radhakrishnan, Ravikumar *Thambiran Heart and Vascular Institute, Chennai*; Sivaprakasam, Mohanasankar *Indian Institute of Technology Madras*

ThET3: 14:30-16:00 Brown 3
6.13 Neural Signal Processing I (Oral Session)
 Chair: Jones, Richard D. *New Zealand Brain Research Institute*
 Co-Chair: Nieuws, Thierry *Istituto Italiano Tecnologia*

14:30-14:45 ThET3.1
Investigating Cell Culture Dynamics Combining High Density Recordings with Dimensional Reduction Techniques
 Nieuws, Thierry* *Istituto Italiano Tecnologia*; Di Marco, Stefano *Istituto Italiano di Tecnologia*; Maccione, Alessandro *Istituto Italiano di Tecnologia*; Amin, Hayder *Istituto Italiano di Tecnologia (IIT)*; Berdondini, Luca *Istituto Italiano di Tecnologia*

14:45-15:00 ThET3.2
High-Density MEA Recordings Unveil the Dynamics of Bursting Events in Cell Cultures
 Lonardoni, Davide* *Istituto Italiano di Tecnologia*; Di Marco, Stefano *Istituto Italiano di Tecnologia*; Amin, Hayder *Istituto Italiano di Tecnologia (IIT)*; Maccione, Alessandro *Istituto Italiano di Tecnologia*; Berdondini, Luca *Istituto Italiano di Tecnologia*; Nieuws, Thierry *Istituto Italiano Tecnologia*

15:00-15:15 ThET3.3
A Step Towards EEG-Based Brain Computer Interface for Autism Intervention
 Fan, Jing* *Vanderbilt Univ.*; Wade, Joshua *Vanderbilt Univ.*; Bian, Dayi *Vanderbilt Univ.*; Key, Alexandra *Vanderbilt Univ.*; Warren, Zachary *Vanderbilt Univ.*; Mion, Lorraine *Vanderbilt Univ.*; Sarkar, Nilanjan *Vanderbilt Univ.*

15:15-15:30 ThET3.4
Multi-Unit Activity Contains Information about Spatial Stimulus Structure in Mouse Primary Visual Cortex
 Tolkienn, Marie* *Imperial College London*; Schultz, Simon R *Imperial College London*

15:30-15:45 ThET3.5
Optimized Echo State Networks with Leaky Integrator Neurons for EEG-Based Microsleep Detection
 Ayyagari, Sudhanshu* *Univ. of Canterbury*; Jones, Richard D. *New Zealand Brain Research Institute*; Weddell, Stephen J. *Univ. of Canterbury*

15:45-16:00 ThET3.6
Characteristics of Thalamic Local Field Potentials in Patients with Disorders of Consciousness
 Huang, Yongzhi *Suzhou Institute of Biomedical Engineering and Technology, China*; He, Jianghong *Beijing Army General Hospital*; Green, Alexander L *Univ. of Oxford*; Aziz, Tipu Z *Univ. of Oxford*; Stein, John F *Univ. of Oxford*; Wang, Shouyan* *Chinese Academy of Sciences*

ThET4: 14:30-16:00 Amber 1
1.17 Causality and Coherence Analysis (Oral Session)
 Chair: Baccala, Luiz Antonio *Escola Politecnica*
 Co-Chair: Cincotti, Febo *Sapienza University of Rome*

14:30-14:45 ThET4.1
Atrial Sources Identification by Causality Analysis during Atrial Fibrillation
 Rodrigo, Miguel* *Univ. Politecnica de Valencia*; Climent, Andreu M. *Univ. Politecnica de Valencia*; Liberos, Alejandro *Univ. Politecnica de Valencia*; Fernandez-Avilés, Francisco *Hospital General Univ. Gregorio Marañón, Madrid*; Berenfeld, Omer *SUNY Upstate Medical Univ.*; Aienza, Felipe *Hospital General Univ. Gregorio Marañón, Madrid*; Guillem, Maria S. *Univ. Politecnica de Valencia*

14:45-15:00 ThET4.2
A New Algorithm for Neural Connectivity Estimation of EEG Event Related Potentials
 Rodrigues, Pedro Luiz Coelho *Escola Politécnica USP*; Baccala, Luiz Antonio* *Escola Politecnica*

15:00-15:15 ThET4.3
Effect of Inter-Trials Variability on the Estimation of Cortical Connectivity by Partial Directed Coherence
 Petti, Manuela* *Univ. of Rome "Sapienza", Neuroelectrical Imaging and BCI Lab IR*; Caschera, Stefano *Sapienza Univ. of Rome*; Pichiorri, Floriana *Fondazione Santa Lucia, IRCCS, Rome, Italy*; Toppi, Jlenia *Univ. of Rome "Sapienza"*; Anzolin, Alessandra *Univ. of Rome "Sapienza", Neuroelectrical Imaging and BCI Lab IR*; Babiloni, Fabio *Univ. of Rome*; Cincotti, Febo *Sapienza Univ. of Rome*; Mattia, Donatella *Fondazione Santa Lucia IRCCS*; Astolfi, Laura *Univ. of Rome Sapienza*

15:15-15:30 ThET4.4
Globally Conditioned Causality in Estimating Directed Brain-Heart Interactions through Joint MRI and RR Series Analysis
 Duggento, Andrea* *Univ. of Rome "Tor Vergata"*; Bianciardi, Marta *Dept. of Radiology, A.A. Martinos Center for Biomedical Ima*; Wald, Lawrence L. *A. A. Martinos Center for Biomedical Imaging, Dept. of Radiology*; Passamonti, Luca *Univ. of Cambridge*; Guerrisi, Maria *Univ. of Rome "Tor Vergata"*; Barbieri, Riccardo *MGH-Harvard Medical School-MIT*; Toschi, Nicola *Univ. of Rome "Tor Vergata", Faculty of Medicine*

15:30-15:45 ThET4.5
Causal Relationships in the Variability of Cardiovascular System Evoked by Orthostatic Stress by Transfer Entropy
 Wejer, Dorota* *Univ. of Gdańsk*; Faes, Luca *Univ. of Trento*; Makowiec, Danuta *Institute of Theoretical Physics and Astrophysics, Gdansk Univ.*

15:45-16:00 ThET4.6
Assessment of Sleep Parameters based on Cardiopulmonary Coupling for Continuous Positive Airway Pressure Device
 Park, Jonguk *Yonsei Univ.*; Jeong, PilSoo *Yonsei Univ.*; Lee, Seung Hwan *Yonsei Univ.*; Myoung, Hyoun Seok *Yonsei Univ.*; Lee, Kyoung Joung* *Yonsei Univ.*

ThET5: 14:30-16:00 Amber 2
1.18 Adaptive and Kalman Filtering (Oral Session)
 Chair: Barbieri, Riccardo *MGH-Harvard Medical School-MIT*
 Co-Chair: Augustyniak, Piotr *AGH University of Science and Tech*

14:30-14:45 ThET5.1
Reduction of EEG Artifacts in Simultaneous EEG-fMRI: Reference Layer Adaptive Filtering (RLAF)
 Steyrl, David* *Graz Univ. of Technology*; Patz, Franz *Guger Technologies OG*; Krausz, Gunther *g.tec Medical Engineering GmbH*; Edlinger, Günter *g.tec Medical Engineering GmbH*; Müller-Putz, Gernot *Graz Univ. of Technology*

14:45-15:00 ThET5.2
Simple Method for Adaptive Filtering of Motion Artifacts in E-Textile Wearable ECG Sensors
 Elboshra, Tamador *Khalifa Univ.*; Andrzej, Sluzek *Khalifa Univ.*; Yapici, Murat Kaya* *Khalifa Univ.*

August 27 Thursday

15:00-15:15	ThET5.3	ECG De-Noiseing: A Comparison between EEMD-BLMS and DWT-NN Algorithms Jensen, Søren* <i>DTU</i> ; Kærsgaard, Kevin <i>DTU</i> ; Puthusserypady, Sadasivan <i>Technical Univ. of Denmark</i>	ThET7: 14:30-16:00 2.14 Image Segmentation III (Oral Session) Chair: Angelini, Elsa <i>Columbia University</i>	Amber 4
15:15-15:30	ThET5.4	Estimation of Heart Rate and Heart Rate Variability from Pulse Oximeter Recordings using Localized Model Fitting Wadehn, Federico* <i>ETH Zurich</i> ; Carnal, David <i>ETH Zurich</i> ; Loeliger, Hans-Andrea <i>ETH Zurich</i>	14:30-14:45	ThET7.1
15:30-15:45	ThET5.5	Evaluation of Adaptive Parafac Algorithms for Tracking of Simulated Moving Brain Sources Fotouhi, Ardeshir <i>Tehran Univ. of Medical Sciences</i> ; Eqlimi, Ehsan <i>Tehran Univ. of Medical Sciences</i> ; Makki Abadi, Bahador* <i>Tehran Univ. of Medical Sciences</i>	Robust Supervised Segmentation of Neuropathology Whole-Slide Microscopy Images Vandenbergh, Michel Erminio <i>Commissariat à l'Energie Atomique et aux Energies Alternatives</i> (; Balbastre, Yael <i>Commissariat à l'Energie Atomique et aux Energies Alternatives</i> (; Souedet, Nicolas <i>Commissariat à l'Energie Atomique</i> ; Hérard, Anne-Sophie <i>Commissariat à l'Energie Atomique</i> ; Dhenain, Marc <i>Commissariat à l'Energie Atomique</i> ; Frouin, Frédérique <i>Sorbonne Univ. Paris 06, UPMC, CNRS, INSERM</i> ; Delzescaux, Thierry* <i>Commissariat à l'Energie Atomique</i>	
15:45-16:00	ThET5.6	Power Line Interference Attenuation in Multi-Channel sEMG Signals: Algorithms and Analysis Soedirdjo, Subaryani Dambawati Harjaya* <i>Politecnico di Torino</i> ; Ullah, Khalil <i>Politecnico di Torino</i> ; Merletti, Roberto <i>Politecnico di Torino</i>	14:45-15:00	ThET7.2
ThET6: 14:30-16:00	Amber 3	2.13 Elastography (Oral Session) Chair: Bensamoun, Sabine <i>UTC</i> Co-Chair: Baselli, Giuseppe <i>Politecnico di Milano</i>	15:00-15:15	ThET7.3
14:30-14:45	ThET6.1	Use of Digital Image Correlation and Ultrasound: Analysis of Thigh Muscle Displacement Fields Affagard, Jean-Sébastien <i>Univ. de Technologie de Compiègne (UTC)</i> ; Feissel, Pierre <i>Univ. de Technologie de Compiègne (UTC)</i> ; Bensamoun, Sabine* <i>UTC</i>	Efficient Segmentation of Skin Epidermis in Whole Slide Histopathological Images Xu, Hongming <i>Univ. of Alberta</i> ; Mandal, Mrinal* <i>Univ. of Alberta</i>	
14:45-15:00	ThET6.2	Enabling Real-Time Ultrasound Imaging of Soft Tissue Mechanical Properties by Simplification of the Shear Wave Motion Equation Engel, Aaron* <i>Univ. of Nebraska-Lincoln</i> ; Bashford, Greg <i>Univ. of Nebraska-Lincoln</i>	Automatic Segmentation of Zona Pellucida and Its Application in Cleavage-Stage Embryo Biopsy Position Selection WANG, ZENAN <i>Nanyang Technological Univ.</i> ; Ang, Wei Tech <i>Nanyang Technological Univ.</i> ; Tan, Steven <i>Singapore Polytechnic</i> ; Latt, Win Tun* <i>Singapore Polytechnic</i>	
15:00-15:15	ThET6.3	Edge-Preserving Ultrasonic Strain Imaging with Uniform Precision Khodadadi, Hossein* <i>Concordia Univ.</i> ; Rivaz, Hassan <i>Concordia Univ.</i> ; Aghdam, Amir G <i>Concordia Univ.</i>	15:15-15:30	ThET7.4
15:15-15:30	ThET6.4	Effects of Data Acquisition Parameters on the Quality of Sonoelastographic Imaging Torres, Gabriela <i>Pontificia Univ. Católica del Perú</i> ; Ormachea, Juvenal <i>Univ. of Rochester</i> ; Lavarello, Roberto* <i>Pontificia Univ. Católica del Perú</i> ; Parker, Kevin <i>Univ. of Rochester</i> ; Castañeda, Benjamín <i>Pontificia Univ. Católica del Perú</i>	Multi-Stage Random Forest Method for Phase Contrast Cell Segmentation Essa, Ehab <i>Swansea Univ.</i> ; Xie, Xianghua* <i>Swansea Univ.</i> ; Errington, Rachel <i>Institute of Cancer & Genetics, School of Medicine, Cardiff Univ.</i> ; White, Nick <i>School of Optometry and Vision Sciences, Cardiff Univ.</i>	
15:30-15:45	ThET6.5	An Experimental Phantom Study on the Effect of Calcifications on Ultrasound Shear Wave Elastography Gregory, Adriana <i>Mayo Clinic College of Medicine</i> ; Bayat, Mahdi <i>Mayo Clinic College of Medicine</i> ; Denis, Max <i>Mayo College of Medicine</i> ; Mehrmohammadi, Mohammad <i>Univ. of Texas at Austin</i> ; Fatemi, Mostafa <i>Mayo Clinic</i> ; Alizad, Azra* <i>Mayo Clinic</i>	15:30-15:45	ThET7.5
15:45-16:00	ThET6.6	A New Shear Wave Imaging System for Ultrasound Elastography Qiu, Weibao* <i>Shenzhen Institutes of Advanced Technology, Chinese Academy of S</i> ; Wang, Congzhi <i>Shenzhen Institutes of Advanced Technology, Chinese Academy of S</i> ; Xiao, Yang <i>the Paul C. Lauterbur Research Center for Biomedical Imaging, the Insti</i> ; Qian, Ming <i>Chinese Academy of Sciences</i> ; Zheng, Hairong <i>Shenzhen Inst of Advanced Tech</i>	15:45-16:00	ThET7.6
			ThET8: 14:30-16:00 8.6 Wearable Robotic Systems: Orthotics (Oral Session) Co-Chair: Micera, Silvestro <i>Scuola Superiore Sant'Anna</i>	Amber 5
			14:30-14:45	ThET8.1
			Design and Performance Characterization of a Hand Orthosis Prototype to Aid Activities of Daily Living in a Post-Stroke Population Gasser, Benjamin W.* <i>Vanderbilt Univ.</i> ; Goldfarb, Michael <i>Vanderbilt Univ.</i>	
			14:45-15:00	ThET8.2
			Gastrocnemius Myoelectric Control of a Robotic Hip Exoskeleton Grazi, Lorenzo* <i>Scuola Superiore Sant'Anna</i> ; Crea, Simona <i>Scuola Superiore Sant'Anna</i> ; Parri, Andrea <i>Scuola Superiore Sant'Anna</i> ; Yan, Tingfang <i>Scuola Superiore Sant'Anna</i> ; Cortese, Mario <i>Scuola Superiore Sant'Anna</i> ; Giovacchini, Francesco <i>Scuola Superiore Sant'Anna</i> ; Cempini, Marco <i>Scuola Superiore Sant'Anna</i> ; Pasquini, Guido <i>Fondazione Don Carlo Gnocchi IRCCS</i> ; Micera, Silvestro <i>Scuola Superiore Sant'Anna</i> ; Vitiello, Nicola <i>Scuola Superiore Sant'Anna</i>	
			15:00-15:15	ThET8.3
			Compliant Gait Assistance Triggered by User Intention Rajasekaran, Vijaykumar* <i>Institute for Bioengineering of Catalonia, Univ. Politecni</i> ; Aranda, Joan <i>Technical Univ. of Catalonia</i> ; Casals, Alicia <i>Institute for Bioengineering of Catalonia and Univ. Politècni</i>	

- 15:15-15:30 ThET8.4
Modeling and Design of a Tendon Actuated Soft Robotic Exoskeleton for Hemiparetic Upper Limb Rehabilitation
 Nycz, Christopher* *Worcester Polytechnic Institute*; Delph, Michael *Worcester Polytechnic Institute*; Fischer, Gregory *Worcester Polytechnic Institute*
- 15:30-15:45 ThET8.5
Fuzzy-Logic-Based Hybrid Locomotion Mode Classification for an Active Pelvis Orthosis: Preliminary Results
 Yuan, Kebin *Peking Univ.*; Parri, Andrea *Scuola Superiore Sant'Anna*; Yan, Tingfang *Scuola Superiore Sant'Anna*; Wang, Long *Peking Univ.*; Munih, Marko *Univ. of Ljubljana*; Vitiello, Nicola *Scuola Superiore Sant'Anna*; Wang, Qining* *Peking Univ.*
- 15:45-16:00 ThET8.6
A Wearable Virtual Chair with the Passive Stability Assist
 Choi, Hyun Do* *SAIT (Samsung Advanced Institute of Technology)*; Lee, Younbaek *SAIT(Samsung Advanced Institute of Technology)*; Lee, Minhyung *Samsung Advanced Institute and Technology*; Kim, Jeonghun *SAIT(Samsung Advanced Institute of Technology)*; Shim, Youngbo *Samsung Advanced Institute of Technology*
- ThET9: 14:30-16:00 Amber 6
8.7 Joint Biomechanics: Spine (Oral Session)
Chair: Petit, Yvan *École de Technologie Supérieure*
- 14:30-14:45 ThET9.1
Simulation of High Energy Vertebral Fractures on Complete Porcine Specimens
 Petit, Yvan* *École de Technologie Supérieure*; Boisclair, Dominic *École de Technologie Supérieure*; Parent, Stefan *Univ. of Montreal*; Mac-Thiong, Jean-Marc *Dept. of surgery, Faculty of Medicine, Univ. of Montre*
- 14:45-15:00 ThET9.2
Lumbar Load Estimation using a Musculoskeletal Model in Consideration of Vertebral Body Displacement: Lumbar Load Simulation under Static Conditions
 IMAMURA, Yumeko* *The National Institute of Advanced Industrial Science and Techno*; Tanaka, Takayuki *Hokkaido Univ.*; Kusaka, Takashi *Hokkaido Univ.*; Tsuchiya, Yoshio *Hokkaido Univ.*
- 15:00-15:15 ThET9.3
Calibration Method for Lumbosacral Dimensions in Wearable Sensor System of Lumbar Alignment
 Tsuchiya, Yoshio* *Hokkaido Univ.*; Kusaka, Takashi *Hokkaido Univ.*; Tanaka, Takayuki *Hokkaido Univ.*; Matsuo, Yoshikazu *Hakodate National College of Technology Dept. of Production*; ODA, Makoto *Hokkaido Univ. Hospital*; Sasaki, Tsukasa *Hokkaido Univ. Hospital*; Kamishima, Tamotsu *Hokkaido Univ.*; Yamanaka, Masanori *Univ.*
- 15:15-15:30 ThET9.4
In-Vitro Assessment of the Stabilization Capacity of Monolithic Spinal Rods with Variable Flexural Stiffness: Methodology and Examples
 Facchinello, Yann* *École de Technologie Supérieure*; Brailovski, Vladimir *Ecole de technologie supérieure*; Petit, Yvan *École de Technologie Supérieure*; Brummund, Martin *École de Technologie Supérieure*; Tremblay, Jaelle *Zimmer CAS*; Mac-Thiong, Jean-Marc *Dept. of surgery, Faculty of Medicine, Univ. of Montre*
- 15:30-15:45 ThET9.5
The Influence of Initial Position of a Flexible Bar on the Lumbar Discs and Muscles Forces: A Sensitivity Analysis
 Khalaf, Kinda* *KUSTAR*; Abdollahi, Masoud *Sharif Univ. of Tech.*; Nikkhoo, Mohammad *Science and Research Branch, Islamic Azad Univ.*; Asghari, Mohsen *Sharif Univ. of Tech.*; Hoviattalab, Maryam *Sharif Univ. of Tech.*; Ashouri, Sajad *Sharif Univ. of Tech.*; Nikpour, Seyedhassan *Sharif Univ. of Tech.*; Sedighe, Kahrizi *Tarbiat Moedares Univ.*; Parnianpour, Mohammad *Sharif Univ. of Tech.*
- 15:45-16:00 ThET9.6
A Simulation Study on Marrow Fat Effect on Biomechanics of Vertebra Bone
 Chen, Yang *Harbin Institute of Technology Shenzhen Graduate School*; Ma, Heather Ting* *Harbin Institute of Technology Shenzhen Graduate School*; Liang, Li *Harbin Institute of Technology Shenzhen Graduate School*; Zhang, Chaoyang *Harbin Institute of Technology Shenzhen Graduate School*; Griffith, James F *The Chinese Univ. of Hong Kong*; Leung, Ping-chung *The Chinese Univ. of Hong Kong*
- ThET10: 14:30-16:00 Amber 7
6.14 Rehabilitation II (Oral Session)
Co-Chair: Conforto, Silvia *University Roma TRE*
- 14:30-14:45 ThET10.1
Assessing Neuro-Motor Recovery in a Stroke Survivor with High-Resolution EEG, Robotics and Virtual Reality
 Comani, Silvia *Univ. of Chieti-Pescara*; Schinaia, Lorenzo *Casa di Cura Privata Villa Serena (Italy)*; Tamburro, Gabriella *Dept. of Neuroscience and Imaging and Institute for Advanced Bio*; Velluto, Lucia *Casa di Cura Privata Villa Serena (Italy)*; Sorbi, Sandro *Dept. of Neuroscience, Psychology, Drug Research and Child*; Conforto, Silvia* *Univ. Roma TRE*; Guarnieri, Biancamaria *Casa di Cura Privata Villa Serena (Italy)*
- 14:45-15:00 ThET10.2
An Arm for a Leg: Adapting a Robotic Arm for Gait Rehabilitation
 Franchi, Giulia *Roma Tre Univ.*; Viereck, Ulrich *Northeastern Univ.*; Platt, Robert *Northeastern Univ.*; Yen, Sheng-che *Northeastern Univ.*; Hasson, Christopher* *Northeastern Univ.*
- 15:00-15:15 ThET10.3
Pediatric Rehabilitation with the reachMAN's Modular Handle
 Tong, Liu Zhu* *National Univ. of Singapore*; Ong, Hian Tat *National Univ. Hospital*; Tan, Jia Xuan *National Univ. of Singapore*; Lin, Jeremy *National Univ. Hospital*; Burdet, Etienne *Imperial College of Science, Technology and Medicine*; Ge, Shuzhi *Sam Pusan National Univ.*; *National Univ. of Singapore*; Teo, Chee Leong *National Univ. of Singapore*
- 15:15-15:30 ThET10.4
A Model of Injury Potential for Myelinated Nerve Fiber
 Zhang, Guanghao *Institute of Electrical Engineering, Chinese Academy of Sciences*; Huo, Xiaolin* *Chinese Academy of Sciences*; Wang, Aihua *Chinese Academy of Sciences*; Zhang, Cheng *Chinese Academy of Sciences, Beijing*; Wu, Changzhe *Chinese Academy of Sciences*
- 15:30-15:45 ThET10.5
Monitoring Game-Based Motor Rehabilitation of Patients at Home for Better Plans of Care and Quality of Life
 Ponte, Serena* *Univ. degli Studi di Genova*; Gabrielli, Silvia *CREATE-NET*; Jonsdottir, Johanna *Fondazione Don Gnocchi Onlus*; Morando, Matteo *Univ. degli Studi di Genova*; Dellepiane, Silvana *Univ. degli Studi di Genova*
- 15:45-16:00 ThET10.6
The Impact of Visual Feedback on the Motor Control of the Upper-Limb
 Urra, Oiane* *Institute de Bioenginyeria de Catalunya (IBEC)*; Casals, Alicia *Institute for Biengineering of Catalonia and Univ. Politècni*; Jané, Raimon *Institute de Bioenginyeria de Catalunya (IBEC)*
- ThET11: 14:30-16:00 Amber 8
6.15 Brain Physiology and Modeling II (Oral Session)
Chair: Song, Dong *University of Southern California*
- 14:30-14:45 ThET11.1
Bidirectional Neural Interface: Closed-Loop Feedback Control for Hybrid Neural Systems
 Chou, Zane* *Univ. of California, San Diego*; Lim, Jeffrey *Univ. of California, San Diego*; Brown, Sophie *Univ. of California San Diego*; Keller, Melissa *Univ. of California San Diego*; Bugbee, Joseph *UCSD*; Broccard, Frederic *Univ. of California San Diego*; Khraiche, Massoud *Univ. of California, San Diego*; Silva, Gabriel *UCSD*; Cauwenberghs, Gert *Univ. of California San Diego*

- 14:45-15:00 ThET11.2
Comparison of Sensorimotor Rhythms in EEG Signals during Simple and Combined Motor Imageries Over the Contra and Ipsilateral Hemispheres
 Lindig, Cecilia* *Inria*; Bougrain, Laurent *Univ. of Lorraine*
- 15:00-15:15 ThET11.3
A Large Scale Simulation of Excitation Propagation in Layer 2/3 of Primary and Secondary Visual Cortices of Mice
 Ohtsu, Shoya* *Osaka Univ.*; Nomura, Taishin *Osaka Univ.*; Uno, Shota *Osaka Univ.*; Maeda, Kazuki *Osaka Univ.*; Hayashida, Yuki *Osaka Univ.*; Yagi, Tetsuya *Osaka Univ., Gard. Eng*
- 15:15-15:30 ThET11.4
Sparse Generalized Volterra Model of Human Hippocampal Spike Train Transformation for Memory Prostheses
 Song, Dong* *Univ. of Southern California*; Robinson, Brian *Univ. of Southern California*; Hampson, Robert *Wake Forest School of Medicine*; Marmarelis, Vasilis *Univ. of Southern California*; Deadwyler, Sam *Wake Forest Univ.*; Berger, Theodore *Univ. of Southern California*
- 15:30-15:45 ThET11.5
Topography-Dependent Spatio-Temporal Correlations in the Entorhinal-Dentate-CA3 Circuit in a Large-Scale Computational Model of the Rat Hippocampus
 Yu, Gene* *Univ. of Southern California*; Hendrickson, Phillip *Univ. of Southern California*; Song, Dong *Univ. of Southern California*; Berger, Theodore *Univ. of Southern California*
- 15:45-16:00 ThET11.6
Thermo-Electrical Equivalents for Simulating the Electro-Mechanical Behavior of Biological Tissue
 Ilaria, Cinelli* *NUI of Galway*; Duffy, Maeve *NUI Galway*; McHugh, Peter *NUI of Galway*
- ThET13: 14:30-16:00 Suite 6
11.1 Innovations in Biomedical Engineering Education (Invited Session)
Chair: Zequera Diaz, Martha Lucia *Associate Professor at Pontificia Universidad Javeriana - Electronics Dept. - Ergosalud Ltda.*
Co-Chair: Magjarevic, Ratko *University of Zagreb*
- 14:30-14:45 ThET13.1
Critical Assessment and Outlook for the 50 Biomedical Engineering Undergraduate Programs in Mexico
 Azpiroz-leeahan, Joaquin* *Univ. Autonoma Metropolitana*; Martinez-Licona, Fabiola *Univ. Autonoma Metropolitana*; Urbina-Medal, E. Gerardo *Univ. Autonoma Metropolitana*; Cadena, Miguel *Univ. Autonoma Metropolitana*; Sacristan, Emilio *Univ. Autónoma Metropolitana*
- 14:45-15:00 ThET13.2
Challenges and Models for Baccalaureate BME Program Design
 Krishnan, Shankar Muthu* *Wentworth Institute of Technology*
- 15:00-15:15 ThET13.3
A Proposal to Enhance Engineering Education in Biology and Medicine by Following the Legacy of René Favaloro
 Armentano, Ricardo Luis* *Republic Univ., Favaloro Univ.*; Cardelino, Juan *Faculty of Engineering, Republic Univ.*; Wray, Sandra *Univ. Favaloro*; Cymberknop, Leandro *Javier Univ. Tecnológica Nacional*; Kun, Luis *Center for Hemispheric Defense Studies (CHDS) / NDU*
- 15:15-15:30 ThET13.4
Influencing the Job Market by the Quality of Graduates – A Biomedical Engineering Example
 Augustyniak, Ewa *AGH Univ. of Science and Technology, Krakow, Poland*; Augustyniak, Piotr* *AGH Univ. of Science and Tech*
- 15:30-15:45 ThET13.5
Clinical Engineering Internship Program of Biomedical Engineering Education in Taiwan
 Lin, Kang Ping* *Chung Yuan Christian Univ.*; Chen, Mei-Jung *Ming Chuan Univ.*; Kao, Tsiar *National Yang Ming Univ.*
- 15:45-16:00 ThET13.6
Design and Implementation of a Flipped Classroom Learning Environment in the Biomedical Engineering Context
 Corrias, Alberto* *National Univ. of Singapore*; Goh, James Cho *Hong National Univ. of Singapore*
- ThET16: 14:30-16:00 White 2
4.5 Biomolecular System Dynamics (Oral Session)
Chair: Riva, Alberto *University of Florida*
- 14:30-14:45 ThET16.1
Modeling the LPS-induced Effects on Transcription Factor Activation and Gene Expression in Murine Macrophages
 Sanwald, Julia* *Univ. of Stuttgart*; Albrecht, Ute *Heinrich Heine Univ. Düsseldorf, Clinic of Gastroenterology*; Wagenpfeil, Jay *Univ. of Stuttgart*; Thomas, Maria Dr. *Margarete Fischer-Bosch Institute of Clinical Pharmacology*; Sawodny, Oliver *Institute for System Dynamics, Univ. of Stuttgart*; Bode, Johannes G. *Heinrich Heine Univ. Düsseldorf, Clinic of Gastroenterology*; Feuer, Ronny *Univ. of Stuttgart*
- 14:45-15:00 ThET16.2
Selection and Mutation in X-Linked Recessive Diseases Epidemiological Model
 Verrilli, Francesca* *Univ. of Sannio*; Kebraei, Hamed *Univ. of Tehran*; Glielmo, Luigi *Univ. of Sannio*; Corless, Martin J. *Purdue Univ.*; Del Vecchio, Carmen *Univ. degli studi del Sannio*
- 15:00-15:15 ThET16.3
Identifying MIRNA-Mediated Signaling Subpathways by Integrating Paired MIRNA/MRNA Expression Data with Pathway Topology
 Vrahatis, Aristidis *Univ. of Patras*; Dimitrakopoulos, Georgios *Univ. of Patras*; Tsakalidis, Athanasios *Univ. of Patras*; Bezerianos, Anastasios* *National Univ. of Singapore*
- 15:15-15:30 ThET16.4
MRI-Guided Epilepsy Detection
 Zamani Pedram, Maysam *Sharif Univ. of Tech., Dept. of Mechanical Enginee*; Shamloo, Amir *Sharif Univ. of Tech.*; Alasty, Aria *Sharif Univ. of Tech.*; Ghafar-Zadeh, Ebrahim* *York Univ.*
- 15:30-15:45 ThET16.5
Electrostatic Study of Alanine Mutational Effects on Transcription: Application to GATA-3: DNA Interaction Complex
 El-Assaad, Atial* *American Univ. of Beirut*; Dawy, Zaher *American Univ. of Beirut*; Nemer, Georges *American Univ. of Beirut*
- 15:45-16:00 ThET16.6
Evaluation of a Plasma Insulin Model for Glycaemic Control in Intensive Care
 Dickson, Jennifer* *Univ. of Canterbury*; Thomas, Felicity *Univ. of Canterbury*; Pretty, Christopher G. *Univ. of Canterbury*; Stewart, Kent *Univ. of Canterbury*; Shaw, Geoffrey M *Christchurch Hospital*; Chase, J. Geoffrey *Univ. of Canterbury*
- ThET17: 14:30-16:00 Space 1
1.19 Biosignal Monitoring and Processing for Ubiquitous Health Care (Invited Session)
Chair: Yana, Kazuo *Hosei University*
Co-Chair: Chon, Ki *University of Connecticut*
- 14:30-14:45 ThET17.1
Inkjet Printed ECG Electrodes for Long Term Biosignal Monitoring in Personalized and Ubiquitous Healthcare
 Batchelor, John *Univ. of Kent*; Casson, Alexander James* *The Univ. of Manchester*
- 14:45-15:00 ThET17.2
Real-Time Sensing, Transmission and Analysis for Vital Signs of Persons during Exercises
 Hara, Shinsuke* *Osaka City Univ.*; Kawabata, Takashi *Kansai Univ.*; Nakamura, Hajime *Aihara Second Hospital*

15:00-15:15	ThET17.3	Psychobehavioral Validity of Self-Reported Symptoms based on Spontaneous Physical Activity Kim, Jinhyuk <i>The Univ. of Tokyo</i> ; Nakamura, Toru* <i>The Univ. of Tokyo</i> ; Kikuchi, Hiroe <i>Dept. of Psychosomatic Research, National Institute of Ment</i> ; Yamamoto, Yoshiharu <i>The Univ. of Tokyo</i>	15:45-16:00	ThET18.6	Quantifying Spatiotemporal Complexity of Cardiac Dynamics using Ordinal Patterns Schlemmer, Alexander* <i>Max Planck Inst. for Dynamics and Self-Organization</i> ; Berg, Sebastian <i>Max Planck Inst. for Dynamics and Self-Organization</i> ; Shajahan, T K <i>Max Planck Inst. for Dynamics and Self-Organization</i> ; Luther, Stefan <i>Max Planck Inst. for Dynamics and Self-Organization</i> ; Parltitz, Ulrich <i>Max Planck Inst. for Dynamics and Self-Organization</i>
15:15-15:30	ThET17.4	Wearable Near-Infrared Spectroscopy Neuroimaging and Its Applications Funane, Tsukasa* <i>Hitachi, Ltd.</i>	ThET19: 14:30-16:00	Space 3	2.15 EEG, MEG and EIT I (Oral Session) Chair: de Carvalho, Paulo <i>Univ. of Coimbra - NIF</i> Co-Chair: Witte, Herbert <i>Jena Univ. Hospital Friedrich Schiller Univ.</i>
15:30-15:45	ThET17.5	Smartphone-Based Monitoring of Tidal Volume and Respiratory Rate Reyes, Bersaín Alexander <i>Worcester Polytechnic Institute</i> ; Reljin, Natasa <i>Univ. of Connecticut</i> ; Kong, Youngsun <i>Soonchunhyang Univ.</i> ; Nam, Yunyoung <i>Soonchunhyang Univ.</i> ; Chon, Ki* <i>Univ. of Connecticut</i>	14:30-14:45	ThET19.1	Source-Domain Spectral EEG Analysis of Sports-Related Concussion via Measure Projection Analysis Balkan, Ozgur* <i>Univ. of California San Diego</i> ; Virji-Babul, Naznin <i>Univ. of British Columbia</i> ; Miyakoshi, Makoto <i>Swartz Center for Computational Neuroscience, INC, UCSD</i> ; Makeig, Scott <i>Univ. of California San Diego</i> ; Garudadri, Harinath <i>Univ. of California, San Diego</i>
15:45-16:00	ThET17.6	Novel Dry Electrodes for Underwater ECG Monitoring Noh, Yeon Sik <i>Yonsei Univ.</i> ; Bales, Justin <i>Worcester Polytechnic Institute</i> ; Reyes, Bersaín Alexander <i>Worcester Polytechnic Institute</i> ; Chon, Ki* <i>Univ. of Connecticut</i>	14:45-15:00	ThET19.2	Sparse Cortical Source Localization using Spatio-Temporal Atoms Korats, Gundars* <i>CRAN UMR 7039, Univ. de Lorraine</i> ; Ranta, Radu <i>CRAN UMR 7039, Univ. de Lorraine/ CNRS</i> ; Le Cam, Steven <i>Univ. de Lorraine</i> ; Louis-Dorr, Valerie <i>Nancy-Univ.</i>
ThET18: 14:30-16:00	Space 2	1.20 Information Dynamics in Networks of Biomedical Signals (Invited Session) Chair: Faes, Luca <i>University of Trento</i> Co-Chair: Porta, Alberto <i>Universita' degli Studi di Milano</i>	15:00-15:15	ThET19.3	A Novel Volume Integral Equation for Solving the Electroencephalography Forward Problem Rahmouni, Lyes* <i>Telecom Bretagne</i> ; Mitharwal, Rajendra <i>Telecom Bretagne</i> ; Andriulli, Francesco P. <i>Institute Mines-Telecom</i>
14:30-14:45	ThET18.1	General Anesthesia Reduces the Information Exchange between Heart and Circulation Porta, Alberto* <i>Univ. degli Studi di Milano</i> ; Bari, Vlasta <i>IRCCS Policlinico San Donato</i> ; Marchi, Andrea <i>Dept. of Electronics Information and Bioengineering, Polite</i> ; De Maria, Beatrice <i>IRCCS Fondazione Salvatore Maugeri, Milano</i> ; Pistuddi, Valeria <i>Dept. of Cardiothoracic, Vascular Anesthesia and Intensive</i> ; Ranucci, Marco <i>Dept. of Cardiothoracic, Vascular Anesthesia and Intensive</i>	15:15-15:30	ThET19.4	Feature Analysis for Correlation Studies of Simultaneous EEG-FMRI Data: A Proof of Concept for Neurofeedback Approaches Simões, Marco <i>Univ. of Coimbra</i> ; João, Lima <i>IBILI, Univ. of Coimbra</i> ; Direito, Bruno <i>FCTUC, Univ. of Coimbra</i> ; Castelhana, João <i>ICNAS, Univ. of Coimbra</i> ; Ferreira, Carlos <i>ICNAS, Univ. of Coimbra</i> ; de Carvalho, Paulo* <i>Univ. of Coimbra - NIF</i> ; Castelo-Branco, Miguel <i>Univ. of Coimbra</i>
14:45-15:00	ThET18.2	Redundant and Synergistic Information Transfer in Cardiovascular and Cardiorespiratory Variability Faes, Luca* <i>Univ. of Trento</i> ; Porta, Alberto <i>Univ. degli Studi di Milano</i> ; Nollo, Giandomenico <i>Univ. of Trento</i>	15:30-15:45	ThET19.5	EIT Image Regularization by a New Multi-Objective Simulated Annealing Algorithm Martins, Thiago de Castro <i>Escola Politecnica da Univ. de Sao Paulo</i> ; Tsuzuki, Marcos de Sales Guerra* <i>Escola Politecnica da Univ. de Sao Paulo</i>
15:00-15:15	ThET18.3	Synergy, Redundancy and Unnormalized Granger Causality Stramaglia, Sebastiano* <i>Univ. of Bari, Italy, and INFN Sezione di Bari, Italy</i> ; Angelini, Leonardo <i>Univ. of Bari and INFN Sezione di Bari</i> ; Cortes, Jesus M <i>Computational Neuroimaging Lab, Biocrates Health Research Instit</i> ; Marinazzo, Daniele <i>Faculty of Psychology and Educational Sciences, Dept. of Da</i>	15:45-16:00	ThET19.6	The ACE1 Thoracic Electrical Impedance Tomography System for Ventilation and Perfusion Mellenthin, Michelle* <i>Colorado State Univ.</i> ; Mueller, Jennifer <i>Colorado State Univ.</i> ; Camargo, Erick Dario Leon Bueno <i>Federal Univ. of ABC (UFABC)</i> ; Moura, Fernando Silva de <i>Federal Univ. of ABC</i> ; Hamilton, Sarah J. <i>Marquette Univ.</i> ; Lima, Raul Gonzalez <i>Escola Politecnica da Univ. de Sao Paulo</i>
15:15-15:30	ThET18.4	Causality Networks from Multivariate Time Series and Application to Epilepsy Siggiridou, Elsa <i>Aristotle Univ. of Thessaloniki</i> ; Koutlis, Christos <i>Aristotle Univ. of Thessaloniki</i> ; Tsimpiris, Alkiviadis <i>Aristotle Univ. of Thessaloniki</i> ; Kimiskidis, Vasilios <i>Aristotle Univ. of Thessaloniki</i> ; Kugiumtzis, Dimitris* <i>Aristotle Univ. of Thessaloniki</i>	ThET20: 14:30-16:00	Space 4	3.5 RF Technologies for Medical Implants I (Invited Session) Chair: Balasingham, Ilango <i>Oslo University Hospital and Norwegian University of Science and Technology</i> Co-Chair: Chavez-Santiago, Raul <i>Oslo University Hospital</i>
15:30-15:45	ThET18.5	Anesthesia-Related Changes in Information Transfer may be Caused by Reduction in Local Information Generation Wollstadt, Patricia* <i>Meg Unit, Brain Imaging Center, Goethe Univ. Frankfurt</i> ; Sellers, Kristin K. <i>Univ. of North Carolina at Chapel Hill, Chapel Hill</i> ; Hutt, Axel <i>INRIA CR Nancy</i> ; Frohlich, Flavio <i>Univ. of North Carolina at Chapel Hill</i> ; Wibral, Michael <i>Goethe Univ.</i>	14:30-14:45	ThET20.1	An Intra-Body Molecular Communication Networks Framework for Continuous Health Monitoring and Diagnosis Chahibi, Youssef* <i>Georgia Institute of Technology</i> ; Balasingham, Ilango <i>Oslo Univ. Hospital and Norwegian Univ. of Science and</i>

- 14:45-15:00 ThET20.2
Wireless Communication Link for Capsule Endoscope at 600 MHz
 Khaleghi, Ali* *Oslo Univ. Hospital*; Balasingham, Ilango *Oslo Univ. Hospital and Norwegian Univ. of Science and*
- 15:00-15:15 ThET20.3
Wireless Radio Channel for Intramuscular Electrode Implants in the Control of Upper Limb Prostheses
 Stango, Antonietta* *Univ. Medical Center Göttingen*; Yekeh Yazdandoost, Kamya *Wireless Network Research Institute, National Institute of Infor*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medic*
- 15:15-15:30 ThET20.4
A More Acceptable Endoluminal Implantation for Wirelessly Monitoring Vital Signals using Ingestible Sensors Anchored to the Stomach Wall
 Ohta, Hidetoshi* *Sapporo Orthopedics and Cardiovascular Hospital*; Izumi, Shintaro *Kobe Univ.*; Yoshimoto, Masahiko *Kobe Univ.*
- 15:30-15:45 ThET20.5
A Microwave Imaging-Based 3D Localization Algorithm for an In-Body RF Source as in Wireless Capsule Endoscopes
 Chandra, Rohit* *Norwegian Univ. of Science and Technology (NTNU)*; Balasingham, Ilango *Oslo Univ. Hospital and Norwegian Univ. of Science and*
- 15:45-16:00 ThET20.6
Multichannel Neural Recording with a 128 Mbps UWB Wireless Transmitter for Implantable Brain-Machine Interfaces
 Ando, Hiroshi* *NICT*; Takizawa, Kenichi *NICT*; Yoshida, Takeshi *Hiroshima Univ.*; Matsushita, Kojiro *Gifu Univ.*; Hirata, Masayuki *Osaka Univ. Medical School*; Suzuki, Takafumi *National Institute of Information and Communications Tech.*
- ThFPoT1: 16:00-17:30 Gold Room
1.47 Independent Component Analysis and Empirical Mode Decomposition (Poster Session)
- 16:00-17:30 ThFPoT1.1
On the Influence of High-Pass Filtering on ICA-Based Artifact Reduction in EEG-ERP
 Winkler, Irene* *Berlin Institute of Technology*; Debener, Stefan *Hamburg Univ.*; Müller, Klaus-Robert *Berlin Institute of Technology*; Tangermann, Michael *Univ. of Freiburg*
- 16:00-17:30 ThFPoT1.2
Evaluation of EEG Signal during the A-Phases of the Cycling Alternating Pattern using Principal Component Analysis
 Ramirez-Elias, Miguel Ghebre* *UASLP*; Arce Guevara, Valdemar *Emigdio Univ. Autonoma de San Luis Potosi*; Mendez, Martin *Oswaldo Univ. Autonoma de San Luis Potosi*; Alba, Alfonso *Univ. Autonoma de San Luis Potosi*
- 16:00-17:30 ThFPoT1.3
Tracking Non-Stationary EEG Sources using Adaptive Online Recursive Independent Component Analysis
 Hsu, Sheng-Hsiou* *Univ. of California, San Diego*; Pion-Tonachini, Luca *Univ. of California, San Diego*; Jung, Tzyy-Ping *Univ. of California San Diego*; Cauwenberghs, Gert *Univ. of California San Diego*
- 16:00-17:30 ThFPoT1.4
Automatic Preprocessing of EEG Signals in Long Time Scale
 Corradino, Claudia* *Univ. of Catania*; Bucolo, Maide *Univ. degli Studi di Catania*
- 16:00-17:30 ThFPoT1.5
Real-Time EEG Source-Mapping Toolbox (REST): Online ICA and Source Localization
 Pion-Tonachini, Luca* *Univ. of California, San Diego*; Hsu, Sheng-Hsiou *Univ. of California, San Diego*; Makeig, Scott *Univ. of California San Diego*; Jung, Tzyy-Ping *Univ. of California San Diego*; Cauwenberghs, Gert *Univ. of California San Diego*
- 16:00-17:30 ThFPoT1.6
R-Principal Subspace for Driver Cognitive State Classification
 Almahasneh, Hossam *Univ. Technology Petronas*; Kamel, Nidal* *Technical Univ. of Petronas*; Walter, Nicolas *Univ. Technology Petronas*; Malik, Aamir Saeed *Univ. Teknologi Petronas*
- 16:00-17:30 ThFPoT1.7
Multiscale PCA to Distinguish Regular and Irregular Surfaces using Tri Axial Head and Trunk Acceleration Signals
 Pendharkar, Gita *Monash Univ.*; Naik, Ganesh R* *Univ. of Tech. Sydney*; Acharyya, Amit *Indian Institute of Tech. Hyderabad*; Nguyen, Hung T. *Univ. of Tech., Sydney*
- 16:00-17:30 ThFPoT1.8
Automated Clustering of Independent Components for Discontinuous Sounds Thoracic Imaging
 Charleston-Villalobos, Sonia* *Univ. Autonoma Metropolitana*; Castaneda-Villa, Norma *Univ. Autónoma Metropolitana-Izt*; Gonzalez-Camarena, Ramon *Univ. Autonoma Metropolitana*; Mejia Avila, Mayra *Instituto Nacional de Enfermedades Respiratorias*; Aljama-Corrales, Tomas *Univ. Autonoma Metropolitana*
- 16:00-17:30 ThFPoT1.9
Hessian Regularization based Non-Negative Matrix Factorization for Gene Expression Data Clustering
 Liu, Xiao *Shanghai Univ.*; Shi, Jun *Shanghai Univ.*; Wang, Congzhi* *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*
- 16:00-17:30 ThFPoT1.10
Empirical Mode Decomposition Applied for Non-Invasive Electrohyserographic Signals Denoising
 Taralunga, Dragos-Daniel* *Politehnica Univ. of Bucharest*; Ungureanu, G. Mihaela *Politehnica Univ. of Bucharest*; Hurezeanu, Bogdan *Politehnica of Bucharest*; Gussi, Ilinca *Univ. of Medicine and Pharmacy Carol Davila*; Strungaru, Rodica *Politehnica Univ. of Bucharest*
- 16:00-17:30 ThFPoT1.11
Empirical Mode Decomposition for Slow Wave Extraction from Electrogastrographical Signals
 Mika, Barbara *Silesian Univ. of Tech.*; Komorowski, Dariusz, Waldemar *Silesian Univ. of Tech.*; Tkacz, Ewaryst* *Silesian Univ of Tech, Faculty of Biomedical Engineering*
- 16:00-17:30 ThFPoT1.12
Preliminary Evaluation of Wearable Wellness System for Obstructive Sleep Apnea Detection
 Crupi, Riccardo *Smartex s.r.l.*; Faetti, Tommaso *Smartex s.r.l.*; Paradiso, Rita* *Smartex srl*
- ThFPoT2: 16:00-17:30 Gold Room
1.48 Nonlinear and Nonstationary Analysis of Biosignals (Poster Session)
- 16:00-17:30 ThFPoT2.1
Fractals Properties of EEG during Event-Related Desynchronization of Motor Imagery
 Nguyen, Ngoc Quang* *Tokyo Univ. of Agriculture and Tech.*; Truong, Quang Dang Khoa *Tokyo Univ. of Agriculture and Tech.*; Kondo, Toshiyuki *Tokyo Univ. of Agriculture and Tech.*
- 16:00-17:30 ThFPoT2.2
Phase-Amplitude Cross-Frequency Coupling in EEG-Derived Cortical Time Series Upon an Auditory Perception Task
 Papadaniil, Chrysa* *Aristotle Univ. of Thessaloniki*; Kosmidou, Vasiliki *Information Technologies Institute, CERTH*; Tsolaki, Anthoula *Aristotle Univ. of Thessaloniki*; Hadjileontiadis, Leontios *Aristotle Univ. of Thessaloniki*; Tsolaki, Magda *Aristotle Univ. of Thessaloniki*; Kompatsiaris, Ioannis (Yannis) *Information Technologies Institute, CERTH*
- 16:00-17:30 ThFPoT2.3
EEG Signal Features Extraction based on Fractal Dimension
 Finotello, Francesca *Univ. of Padova*; Scarpa, Fabio* *Univ. of Padova*; Zanon, Mattia *Univ. of Padova*

- 16:00-17:30 ThFPoT2.4
Lempel-Ziv and Multiscale Lempel-Ziv Complexity in Depression
 Kalev, Kaia* *Tallinn Univ. of Tehnology, Technomedicum*;
 Bachmann, Maie *Tallinn Univ. of Technology*; Lass, Jaanus
Tallinn Univ. of Technology; Hinrikus, Hiie *Tallinn Univ. of
 Technology*; Orgo, Laura *Tallinn Univ. of Technology*
- 16:00-17:30 ThFPoT2.5
Detrended Fluctuation Analysis for Major Depressive Disorder
 Wajid, Mumtaz *Univ. Teknologi Petronas*; Malik, Aamir Saeed*
Univ. Teknologi Petronas; Ali, Syed Saad Azhar *Univ. Teknologi
 Petronas*; Azhar, Yasin *Univ. Sains Malaysia*; Amin, Hafeez
 Ullah *Univ. Teknologi Petronas*
- 16:00-17:30 ThFPoT2.6
**Tsallis Entropy as a Biomarker for Detection of
 Alzheimer's Disease**
 Al-nuaimi, Ali H.* *Univ. of Plymouth*; Jammeh, Emmanuel
Plymouth Univ., School of Computing and Mathematics; Sun,
 Lingfen *Plymouth Univ., School of Computing and Mathematics*;
 Ifeachor, Emmanuel *Univ. of Plymouth*
- 16:00-17:30 ThFPoT2.7
Distribution Entropy Analysis of Epileptic EEG Signals
 Li, Peng* *Shandong Univ.*; Yan, Chang *Shandong Univ.*; Karmakar,
 Chandan *Deakin Univ.*; Liu, Changchun *Shandong Univ.*
- 16:00-17:30 ThFPoT2.8
Non-Linear Analysis of EEG and HRV Signals during Sleep
 Martin, Alejandro *Univ. Autonoma de San Luis Potosi*;
 Guerrero-Mora, Guillermina *Univ. Autonoma de San Luis
 Potosi*; Dorantes Méndez, Guadalupe *Univ. Autónoma de San
 Luis Potosi*; Alba, Alfonso *Univ. Autonoma de San Luis Potosi*;
 Mendez, Martin Oswaldo *Univ. Autonoma de San Luis Potosi*;
 Chouvarda, Ioanna* *Aristotle Univ.*
- 16:00-17:30 ThFPoT2.9
**Highly Scalable Parallel Processing of Extracellular
 Recordings of Multielectrode Arrays**
 Gehring, Tiago Victor* *Univ. of Sheffield*; Vasilaki, Eleni *Univ. of
 Sheffield*; Giugliano, Michele *Univ. of Antwerpen*
- 16:00-17:30 ThFPoT2.10
**Effect of Filtering on the Classification Rate of Nonlinear
 Analysis Methods Applied to Uterine EMG Signals**
 Diab, Ahmad *Univ. de technologie de Compiègne - UTC*; Falou,
 Omar* *Sunnybrook Health Sciences Centre / Univ. of Toronto*;
 Hassan, Mahmoud *Univ. de Rennes 1*; Karlsson, Brynjar *Reykjavik
 Univ.*; Marque, Catherine *Univ. of Technology of Compiègne*
- 16:00-17:30 ThFPoT2.11
**Sensors' Ground Reaction Force Behavior for Both Normal
 and Parkinson Subjects – A Qualitative Study**
 Alkhatib, Rami* *Rafik Hariri Univ. / Univ. De Lyon*; Corbier,
 Christophe *Laboratoire LASPI, Univ. Jean-Monnet, 20 avenue
 de Paris, 4*; El Badaoui, Mohamed *Laboratoire LASPI, Univ.
 Jean-Monnet, 20 avenue de Paris, 4*; Moslem, Bassam *Hariri
 Canadian Univ.*; Diab, Mohamad *Rafik Hariri Univ.*
- 16:00-17:30 ThFPoT2.12
**Toward Lightweight Biometric Signal Processing for
 Wearable Devices**
 Francescon, Roberto *Univ. of Padova*; Hooshmand, Mohsen
Univ. of Padova; Gadaleta, Matteo *Univ. of Padova*; Grisan,
 Enrico *Univ. of Padova*; Yoon, Seung Keun *Samsung
 Advanced Institute of Tech.*; Rossi, Michele* *Univ. of Padova*
- 16:00-17:30 ThFPoT2.13
**A Multi-Spot Exploration of the Topological Structures
 of the Reconstructed Phase-Space for the Detection of
 Cardiac Murmurs**
 Oliveira, Jorge* *Instituto de Telecomunicações, Faculdade de
 Ciências da Univ.*; Oliveira, Cristina *Faculdade de Engenharia
 da Univ. do Porto*; Cardoso, Bruna *Faculdade de Medicina da
 Univ. do Porto*; Sultan, Malik Saad *Univ. of Porto*; Coimbra,
 Miguel *Instituto de Telecomunicações / Univ. do Porto*
- 16:00-17:30 ThFPoT2.14
**Intracranial Pressure for the Characterization of Different
 Types of Hydrocephalus: A Permutation Entropy Study**
 Adjei, Tricia *Oxehealth, Oxford*; Abasolo, Daniel* *Univ. of
 Surrey*; Santamarta, David *Hospital Univ. de León, León*
- 16:00-17:30 ThFPoT2.15
**Non-Contact Dual Pulse Doppler System based Respiratory
 and Heart Rates Estimation for CHF Patients**
 Tran, Vinh Phuc *Univ. of Technology Sydney*; Al-Jumaily, Adel*
Univ. of Technology Sydney
- ThFPoT3: 16:00-17:30 Gold Room
2.36 Image Visualization and Rendering (Poster Session)
- 16:00-17:30 ThFPoT3.1
**A GPU Accelerated Moving Mesh Correspondence
 Algorithm with Applications to RV Segmentation**
 Punithakumar, Kumaradevan* *Univ. of Alberta*; Noga, Michelle
Univ. of Alberta; Boulanger, Pierre *Univ. of Alberta*
- 16:00-17:30 ThFPoT3.2
**A High-Accuracy Surgical Augmented Reality System using
 Enhanced Integral Videography Image Overlay**
 Zhang, Xinran *Tsinghua Univ.*; Chen, Guowen *Tsinghua Univ.*;
 Liao, Hongen* *Tsinghua Univ.*;
- 16:00-17:30 ThFPoT3.3
**Adaptive Stereo Medical Image Watermarking using
 Non-Corresponding Blocks**
 Mohaghegh, Hoda *Isfahan Univ. of Technology*; Karimi, Nader
Isfahan Univ. of Technology; Soroushmehr, S.M.Reza* *Univ. of
 Michigan, Ann Arbor*; Samavi, Shadrokh *McMaster Univ.*;
 Najarian, Kayvan *Univ. of Michigan - Ann Arbor*
- 16:00-17:30 ThFPoT3.4
**Techniques for Estimating Blood Pressure Variation
 using Video Images**
 Sugita, Norihiro* *Tohoku Univ.*; Obara, Kazuma *Tohoku Univ.*;
 Yoshizawa, Makoto *Tohoku Univ.*; Abe, Makoto *Tohoku Univ.*;
 Tanaka, Akira *Fukushima Univ.*; Homma, Noriyasu *Tohoku
 Univ. Graduate School of Medicine*
- 16:00-17:30 ThFPoT3.5
**High Quality Surface Reconstruction in Radiotherapy: Cross-
 Sectional Contours to 3D Mesh using Wavelets**
 Moriconi, Stefano* *National Research Council*; Scalco, Elisa
National Research Council; Broggi, Sara *Scientific Institute San
 Raffaele*; Avuzzi, Barbara *Fondazione IRCCS Istituto Nazionale
 dei Tumori*; Valdagni, Riccardo *Fondazione IRCCS Istituto
 Nazionale dei Tumori*; Rizzo, Giovanna *National Research
 Council (CNR)*
- 16:00-17:30 ThFPoT3.6
**An Innovative Calibration based Integral Photography Rendering
 Algorithm for Medical Application and Its Evaluation**
 Chen, Guowen *Tsinghua Univ.*; Zhang, Xinran *Tsinghua Univ.*;
 Fan, Zhencheng *Tsinghua Univ.*; Liao, Hongen* *Tsinghua
 Univ.*;
- 16:00-17:30 ThFPoT3.7
**Clustering-Based Limb Identification for
 Pressure Ulcer Risk Assessment**
 Baran Pouyan, Maziyar *Univ. of Texas at Dallas*; Nourani,
 Mehrdad* *Univ. of Texas at Dallas*; Pompeo, Matthew
Presbyterian Wound Care Clinic
- 16:00-17:30 ThFPoT3.8
**Visualization of Multiple Anatomical Structures with Explicit
 Isosurface Manipulation**
 Wan, Xiaonan *Institute of Automation, the Chinese Academy of
 Sciences*; Yang, Fei *Institute of Automation, Chinese Academy
 of Science*; Yang, Feng *Dept. of Biomedical Engineering,
 Beijing Jiaotong Univ.*; Li, Xiuli *Institute of Automation, Chinese
 Academy of Sciences*; Xu, Min *Chinese Academy of Sciences*;
 Tian, Jie* *Chinese Academy of Sciences*

- 16:00-17:30 ThFPoT3.9
Accelerating DRR Generation using Fourier Slice Theorem on the GPU
 Abdellah, Marwan* *Biomedical Engineering Dept., Cairo Univ.*;
 Eldeib, Ayman M. *Cairo Univ.*; Owis, Mohamed *Cairo Univ.*
- 16:00-17:30 ThFPoT3.10
GPU Acceleration for Digitally Reconstructed Radiographs using Bindless Texture Objects and CUDA/OpenGL Interoperability
 Abdellah, Marwan* *Biomedical Engineering Dept., Cairo Univ.*;
 Eldeib, Ayman M. *Cairo Univ.*; Owis, Mohamed *Cairo Univ.*
- ThFPoT4: 16:00-17:30 Gold Room
2.37 IR and Near IR Imaging and Spectroscopy (Poster Session)
- 16:00-17:30 ThFPoT4.1
Hyperspectral Imaging of Vascular Anastomosis Associated with Blood Flow and Hemoglobin Concentration
 Sakota, Daisuke* *National Institute of Advanced Industrial Science and Technology*; Nagaoka, Eiki *Tokyo Medical and Dental Univ.*; Maruyama, Osamu *National Institute of Advanced Industrial Science and Technology*
- 16:00-17:30 ThFPoT4.2
Robust Remote Monitoring of Breathing Function by using Infrared Thermography
 Barbosa Pereira, Carina* *RWTH Aachen Univ.*; Yu, Xinchun *RWTH Aachen Univ.*; Blazek, Vladimir *Philips Chair for Medical Information Technology, RWTH Aachen Univ.*; Leonhardt, Steffen *RWTH Aachen Univ.*
- 16:00-17:30 ThFPoT4.3
Thermogram Breast Cancer Detection Approach based on Neurosophic Sets and Fuzzy C-Means Algorithm
 Gaber, Tarek* *IT4Innovations, VSB-Technical Univ. of Ostrava, Ostrava, C*; Zahran, Gehad *Faculty of Computers and Information - Cairo Univ.*; Anter, Ahmed *Teaching assistant - Faculty of Computer Science and Informatics, Mona, Soliman Faculty of Computers and Information, Cairo Univ., Cairo*; Ali, Mona *Abdelbaset Sadek Minia Univ.*; Sema, Noura *Faculty of Computers and Information, Menoufia Univ., Egypt*; Aboul Alla, Hassanien *Faculty of Computer and Information, Cairo Univ., Cairo, Eg*; Vaclav, Snašel *IT4Innovation, VSB-Technical Univ. of Ostrava, Ostrava, Cz*
- 16:00-17:30 ThFPoT4.4
Functional Connectivity Analysis of Brain Hemodynamics during Rubber Hand Illusion
 Arizono, Naoki* *Tokyo Univ. of Agriculture and Technology*;
 Kondo, Toshiyuki *Tokyo Univ. of Agriculture and Technology*
- 16:00-17:30 ThFPoT4.5
Sensitivity Exploratory Analysis of the Scalar Wave P1/3 Model to Absorptive Inclusions in Biological Media
 Bouza Dominguez, Jorge *Bishop's Univ.*; Dolgushin, Sergey* *National Research Univ. of Electronic Technology*; Selishchev, Sergey *National Research Univ. of Electronic Technology (MIET)*
- 16:00-17:30 ThFPoT4.6
In Vivo NIRS Monitoring in Pig Spinal Cord Tissues
 Tsiakaka, Olivier* *UPMC - LIP6*; Terosiet, Mehdi *ENSEA*;
 Romain, Olivier *ETIS UMR 8051, ENSEA, Univ. of Cergy-Pontoise, CNRS*; Histace, Aymeric *ETIS UMR 8051 CNRS*;
 Benali, Habib *INSERM - Univ. Pierre et Marie Curie*; Pradat, Pierre-Francois *Sorbonne Univ., UPMC, Univ Paris 06, Laboratory of Biomed*; Vallette, Farouk *UPMC, LIP6*; Feher, Michael *UPMC, LIP6*; Feruglio, Sylvain *UPMC - Paris 6*
- ThFPoT5: 16:00-17:30 Gold Room
2.38 MR Neuroimaging II (Poster Session)
- 16:00-17:30 ThFPoT5.1
High-Resolution MRI of Spinal Cords by Compressive Sensing Parallel Imaging
 Li, Peng *Texas A&M Univ.*; Yu, Xiangdong *Texas A&M Univ.*;
 Griffin, Jay *Texas A&M Univ.*; Levine, Jonathan M *Texas A&M Univ.*; Ji, Jim Xiuquan* *Texas A&M Univ.*
- 16:00-17:30 ThFPoT5.2
The Predictive Power of Structural MRI in Autism Diagnosis
 Katuwal, Gajendra* *RIT*; Michael, Andrew *Rochester Institute of Technology*; Cahill, Nathan *Rochester Institute of Technology*;
 Baum, Stefi *Rochester Institute of Technology*
- 16:00-17:30 ThFPoT5.3
Medial Temporal Lobe High Resolution Magnetic Resonance Images for the Early Diagnosis of Alzheimer's Disease
 Brun, Francesco* *Univ. of Trieste*; Sensi, Francesco *INFN, Genoa*;
 Quartulli, Rossella *INFN, Trieste*; Rei, Luca *INFN, Genoa*; Grucka, Alban *Univ. of Trieste*; Mancarella, Valentina *Univ. of Trieste*;
 Chincarini, Andrea *INFN, Genoa*; Ukmar, Maja *Azienda Ospedaliero - Univ. "Ospedali Riuniti" Trieste*; Accardo, Agostino *Univ. of Trieste*; Longo, Renata *Univ. of Trieste & INFN, Dept. of Physics*
- 16:00-17:30 ThFPoT5.4
Multimodal MRI Classification in Vascular Mild Cognitive Impairment
 Diciotti, Stefano* *Alma Mater Studiorum, Univ. of Bologna*;
 Ciulli, Stefano *Univ. of Florence*; Ginestroni, Andrea *Careggi General Hospital Florence*; Salvadori, Emilia *Univ. of Florence*;
 Poggesi, Anna *Univ. of Florence*; Pantoni, Leonardo *Univ. of Florence*; Inzitari, Domenico *Univ. of Florence*; Mascalchi, Mario *Univ. of Florence*; Toschi, Nicola *Univ. of Rome "Tor Vergata", Faculty of Medicine*
- 16:00-17:30 ThFPoT5.5
Functional Diffusion Map: A Biomarker of Brain Metastases Response to Treatment based on Magnetic Resonance Image Analysis
 Ruiz-España, Silvia *Univ. Politècnica de València*; Jiménez-Moya, Ana *Univ. Politècnica de València*; Arana, Estanislao *Radiology Dept., Fundación Instituto Valenciano de Oncología*;
 Moratal, David* *Univ. Politècnica de València*
- 16:00-17:30 ThFPoT5.6
Sparse Dictionary Learning for fMRI Analysis using Autocorrelation Maximization
 Khalid, Muhammad Usman* *NICTA and The Australian National Univ.*; Shah, Adnan *Univ. of Melbourne*; Seghouane, Abd-krim *The Univ. of Melbourne*
- 16:00-17:30 ThFPoT5.7
Resting-State Brain Activity in the Motor Cortex Reflects Task-Induced Activity: A Multi-Voxel Pattern Analysis
 Kusano, Toshiaki* *Nagaoka Univ. of Technology*; Kurashige, Hiroki *Tokyo Univ.*; Nambu, Isao *Nagaoka Univ. of Technology*;
 Moriguchi, Yoshiya *National Center of Neurology and Psychiatry*; Hanakawa, Takashi *National Center of Neurology and Psychiatry*; Wada, Yasuhiro *Nagaoka Univ. of Technology*;
 Osu, Rieko *ATR Computational Neuroscience Laboratories*
- 16:00-17:30 ThFPoT5.8
Automatic Detection of Local Arterial Input Functions through Independent Component Analysis on Dynamic Contrast Enhanced Magnetic Resonance Imaging
 Narváez, Mario *Univ. Politècnica de València*; Ruiz-España, Silvia *Univ. Politècnica de València*; Arana, Estanislao *Radiology Dept., Fundación Instituto Valenciano de Oncología*;
 Moratal, David* *Univ. Politècnica de València*
- 16:00-17:30 ThFPoT5.9
An MRI-Compatible and Quantifiable Mechanical Stimulator for Allodynia in a Rat Model of Neuropathic Pain
 Suzuki, Toshiaki* *The Univ. of Tokyo*; Kim, Dongmin *The Univ. of Tokyo*;
 Nagase, Masae *The Univ. of Tokyo*; Saitoh, Youichi *Osaka Univ.*; Someya, Takao *the Univ. of Tokyo*; Sekino, Masaki *The Univ. of Tokyo*
- 16:00-17:30 ThFPoT5.10
Testing the Effects of Pre-Processing on Voxel based Morphometry Analysis
 Chirumamilla, Venkata Chaitanya* *Johannes Gutenberg Univ., Dept. of Neurology Mainz*; Koirala, Nabin *Johannes Gutenberg Univ., Dept. of Neurology Mainz*; Mideksa, Kidist *Gebremariam Univ. of Kiel*; Anwar, Abdul Rauf *Univ. of Engineering & Technology*; Schmidt, Gerhard *Univ. of Kiel, Digital Signal Processing and System Theory*; Gunther, Deuschl *Dept. of Neurology*; Sergiu, Groppa *Dept. of Neurology*; Muthuraman, Muthuraman *Christian Albrechts Univ.*

- 16:00-17:30 ThFPoT5.11
A Collaborative Environment for Shared Classification of Neuroimaging: The Experience of the Colibri Project
 Alloni, Anna* *Univ. of Pavia*; Lanzola, Giordano *Univ. of Pavia*; Triulzi, Fabio Maria *Fondazione IRCCS Ca' Granda, Ospedale Maggiore Policlinico*; Bellazzi, Riccardo *Univ. of Pavia*; Reni, Gianluigi *IRCCS*
- 16:00-17:30 ThFPoT5.12
A Statistical Approach in Human Brain Connectome of Parkinson Disease in Elderly People using Network based Statistics
 Aarabi, Mohammad Hadi* *Students' Scientific Research Center, Tehran Univ. of Medica*; Kamalian, Aida *Student's Scientific Research Center, Tehran Univ. of Medica*; Mohajer, Bahram *Student's Scientific Research Center, Tehran Univ. of Medica*; Shirin Shandiz, Mahdi *Student's Scientific Research Center, Tehran Univ. of Medica*; Eqlimi, Ehsan *Tehran Univ. of Medical Sciences*; Shojaei, Ahmad *Basir Eye Health Research Center, Tehran, Iran*; Safabakhsh, Hamidreza *Basir Eye Health Research Center, Tehran, Iran*
- 16:00-17:30 ThFPoT5.13
Testing Different ICA Algorithms and Connectivity Analyses on MS Patients
 Muthuraman, Muthuraman* *Christian Albrechts Univ.*; Anjum, Tauqeer *Univ. of Kiel, Digital Signal Processing and System Theory*; Drogby, Amgad *Johannes Gutenberg Univ., Dept. of Neurology Mainz*; Vinzenz, Fleischer *Dept. of Neurology, Johannes Gutenberg Univ., Mainz*; Reitz, Sarah Christina *Dept. of Neurology, Goethe Univ. Frankfurt am Main, Fr*; Mideksa, Kidist Gebremariam *Univ. of Kiel*; Schmidt, Gerhard *Univ. of Kiel, Digital Signal Processing and System Theory*; Zipp, Frauke *Johannes Gutenberg Univ., Dept. of Neurology Mainz*; Sergiu, Groppa *Dept. of Neurology*
- ThFPoT6: 16:00-17:30 Gold Room
2.39 Retinal and Ophthalmic Imaging III (Poster Session)
- 16:00-17:30 ThFPoT6.1
Glaucoma Classification using Regional Wavelet Features of the ONH and Its Surroundings
 Haleem, Muhammad Salman* *Manchester Metropolitan Univ.*; Han, Liangxiu *Manchester Metropolitan Univ.*; van Hemert, Jano *Optos plc*; Fleming, Alan *Optos plc*
- 16:00-17:30 ThFPoT6.2
New Hierarchical Approach for Microaneurysms Detection with Matched Filter and Machine Learning
 Wu, Jiayi* *Xi'an Jiaotong Univ.*; Xin, Jingmin *Xi'an Jiaotong Univ.*; Hong, Lai *School of Software Engineering, Shenzhen Institute of Inform*; You, Jane *The Hong Kong Polytechnic Univ.*; Zheng, Nanning *Xi'an Jiaotong Univ.*
- 16:00-17:30 ThFPoT6.3
An Augmented Reality Assistance Platform for Eye Laser Surgery
 Ong, Ee Ping* *Inst. for Infocomm Research*; Lee, Jimmy Addison *Inst. for Infocomm Research, ASTAR*; Cheng, Jun *Inst. for Infocomm Research, AStar*; Lee, Beng Hai *Inst. for Infocomm Research*; Xu, Guozhen *Inst. for Infocomm Research*; Laude, Augustinus *Tan Tock Seng Hospital*; Teoh, Stephen *National Healthcare Group (NHG) Eye Inst.*; Lim, Tock Han *Tan Tock Seng Hospital*; Wong, Damon *Inst. for Infocomm Research*; Liu, Jiang *Inst. for Infocomm Research, A STAR*
- 16:00-17:30 ThFPoT6.4
Computer-Assisted Grading of Diabetic Macular Edema on Retinal Color Fundus Images
 Sundareshan, Vaanathi* *Indian Institute of Technology Madras*; Ram, Keerthi *International Institute of Information Technology-Hyderabad*; Joshi, Niranjan *Healthcare Technology Innovation Centre*; Sivaprakasam, Mohanasankar *Indian Institute of Technology Madras*; Gandhi, Rashmin *Beyond Eyecare*
- 16:00-17:30 ThFPoT6.5
3-D Localization of Diabetic Macular Edema using OCT Thickness Maps
 Roychowdhury, Sohini* *Univ. of Washington, Bothell*; Koozekanani, Dara *Univ. of Minnesota*; Reinsbach, Michael *Univ. of Minnesota, Dept. of Ophthalmology*; Parhi, Keshab *Univ. of Minnesota*
- 16:00-17:30 ThFPoT6.6
Computer-Aided Diagnosis of Plus Disease in Retinal Fundus Images of Preterm Infants via Measurement of Vessel Tortuosity
 Oloumi, Faraz* *Univ. of Calgary*; Rangayyan, Raj *Univ. of Calgary*; Ells, Anna L. *Division of Ophthalmology, Dept. of Surgery, Alberta Childr*
- 16:00-17:30 ThFPoT6.7
A New Tool to Connect Blood Vessels in Fundus Retinal Images
 Calivà, Francesco* *Univ. of Lincoln*; Aletti, Matteo *INRIA*; Al-Diri, Bashir *The Univ. of Lincoln*; Hunter, Andrew *Univ. of Lincoln*
- 16:00-17:30 ThFPoT6.8
Interactive Retinal Vessel Centreline Extraction and Boundary Delineation using Anisotropic Fast Marching and Intensities Consistency
 Chen, Da* *Univ. Paris Dauphine*; Cohen, Laurent *Paris Dauphine Univ.*
- 16:00-17:30 ThFPoT6.9
Reducing the Artifacts in the Identification of Outer Retinal Boundary in the SD-OCT Image with Inherit Retinal Dystrophies
 Zhang, Min* *Kyoto Univ.*; Sekiguchi, Hiroyuki *Kyoto Univ.*; Uji, Akihito *Kyoto Univ.*; Yakami, Masahiro *Kyoto Univ.*; Togashi, Kaori *Kyoto Univ. Graduate School of Medicine, Kyoto, Japan*
- ThFPoT7: 16:00-17:30 Gold Room
3.23 New Sensing Techniques II (Poster Session)
- 16:00-17:30 ThFPoT7.1
A Mucoadhesive Endoluminal Wearable Sensory System
 Chan, Cecilia K.W. *The Chinese Univ. of Hong Kong, Hong Kong*; Zheng, Yali *The Chinese Univ. of Hong Kong*; Elaine, Elaine H.L. *The Chinese Univ. of Hong Kong*; Yu, Ruoxi *The Chinese Univ. of Hong Kong*; Leung, Hin Kwong *The Chinese Univ. of Hong Kong*; Zhang, Rui kai *The Chinese Univ. of Hong Kong*; Poon, Carmen CY* *The Chinese Univ. of Hong Kong*
- 16:00-17:30 ThFPoT7.2
Photoelectric Properties in Metal Ion Modified DNA Nanostructure
 Kulkarni, Atul *Sungkyunkwan Univ.*; Dugasani, Sreekantha Reddy *Sungkyunkwan Univ.*; Kim, Jang Ah *Sungkyunkwan Univ. (SKKU)*; Kim, Hyeong-U *Sungkyunkwan Univ. (SKKU)*; Park, Sung Ha *Sungkyunkwan Univ.*; Taesung, Kim* *Sungkyunkwan Univ., Mechanical Engineering*
- 16:00-17:30 ThFPoT7.3
Development of an Integrated Optical Contact Force Monitoring Sensor for Cardiac Ablation Catheters
 Kim, Jang Ah *Sungkyunkwan Univ. (SKKU)*; Kim, Changmin *Sungkyunkwan Univ.*; Park, Kihong *Sungkyunkwan Univ.*; Kulkarni, Atul *Sungkyunkwan Univ.*; Taesung, Kim* *Sungkyunkwan Univ., Mechanical Engineering*
- 16:00-17:30 ThFPoT7.4
Resistopalatography as an Assistive Technology for Users with Spinal Cord Injuries
 Horne, Robert* *Univ. of Kent*; Kelly, Stephen *Univ. of Kent, Ekhuft, Kess*; Sharp, Paul *Univ. of Kent*
- 16:00-17:30 ThFPoT7.5
A Low Power, Area Efficient FPGA based Beamforming Technique for 1-D CMUT Arrays
 Joseph, Bastin* *IIT Hyderabad*; Joseph, Jose *Indian Institute of Technology, Hyderabad*; Vanjari, Siva Rama Krishna *IIT Hyderabad*
- 16:00-17:30 ThFPoT7.6
Unobtrusive Tactile Sensing based on Electromechanical Boundary Estimation
 Yoshimoto, Shunsuke* *Osaka Univ.*; Imura, Masataka *Kwansei Gakuin Univ.*; Oshiro, Osamu *Osaka Univ.*

16:00-17:30	ThFPoT7.7	ThFPoT9: 16:00-17:30	Gold Room
A μ-Biomimetic Flow Sensor for Medical and Pharmaceutical Applications		4.15 Clinical Applications of Modeling (Poster Session)	
Stepniak, Simon <i>Center of Advanced European Studies and Research</i> ; Bleckmann, Horst <i>Univ. of Bonn, Institute of Zoology</i> ; Herzog, Hendrik <i>Univ. of Bonn</i> ; Klein, Adrian <i>Univ. of Bonn</i> ; Schulze, Elisabeth <i>Forschungszentrum caesar</i> ; Tätzner, Simon <i>Fraunhofer IBMT</i> ; Steltenkamp, Siegfried* <i>Univ. of Bonn</i>		16:00-17:30	ThFPoT9.1
16:00-17:30	ThFPoT7.8	Melanosome Distribution Patterns Affecting Skin Reflectance: Implications for the in Vivo Estimation of Epidermal Melanin Content	
Effects of Sensor Type and Location on Signal Quality in Bed Mounted Ballistocardiographic Heart Rate and Respiration Monitoring		Chen, Tenn Francis* <i>Univ. of Waterloo</i> ; Baranoski, Gladimir <i>Univ. of Waterloo</i>	
Vehkaoja, Antti* <i>Tampere Univ. of Technology</i> ; Kontunen, Anton Santeri <i>Tampere Univ. of Technology</i> ; Lekkala, Jukka <i>Tampere Univ. of Technology</i>		16:00-17:30	ThFPoT9.2
16:00-17:30	ThFPoT7.9	Homology Modeling of Target Proteins and Identification of Novel Anti-Fungal Compounds against <i>Candida Tropicalis</i> through Structure based Virtual Screening	
Comparative Study on Dielectric Constants and Conductivities of Invasive Ductal Carcinoma Tissues		Ravinarayanan, Haribalaganesh <i>Kalasalingam Univ.</i> ; Paul, Bibhash Kumar <i>Kalasalingam Univ.</i> ; Chakraborty, Angshu <i>Kalasalingam Univ.</i> ; Sundar, Krishnan* <i>Kalasalingam Univ.</i>	
Kikkawa, Takamaro* <i>Hiroshima Univ.</i> ; Sugitani, Takumi <i>Hiroshima Univ.</i> ; Arihiro, Koji <i>Hiroshima Univ.</i>		16:00-17:30	ThFPoT9.3
ThFPoT8: 16:00-17:30	Gold Room	Anthropometric Measurements for Assessing Insulin Sensitivity on Patients with Metabolic Syndrome, Sedentaries and Marathoners	
3.24 Sensors and Systems (Poster Session)		Severeyn Varela, Erika <i>Univ. Simón Bolívar</i> ; Wong C, Sara <i>Univ. Simón Bolívar</i> ; Herrera, Hector <i>Univ. Simón Bolívar</i> ; Altuve, Miguel* <i>Pontifical Bolivarian Univ.</i>	
16:00-17:30	ThFPoT8.1	16:00-17:30	ThFPoT9.4
Nanomaterial-Based Biosensors for a Real-Time Detection of Biological Damage by UV Light		Feature Selection and Oversampling in Analysis of Clinical Data for Extubation Readiness in Extreme Preterm Infants	
Santonicola, M. Gabriella* <i>Sapienza Univ. of Rome</i> ; Coscia, Marta Gina <i>Sapienza Univ. of Rome</i> ; Sirilli, Matteo <i>Sapienza Univ. of Rome</i> ; Laurenzi, Susanna <i>Sapienza Univ. of Rome</i>		Gourdeau, Pascale* <i>McGill Univ.</i> ; Kanbar, Lara <i>McGill Univ.</i> ; Shalish, Wissam <i>McGill Univ.</i> ; Sant'Anna, Guilherme Mendes <i>McGill Univ.</i> ; Kearney, Robert Edward <i>McGill Univ.</i> ; Precup, Doina <i>McGill Univ.</i>	
16:00-17:30	ThFPoT8.2	16:00-17:30	ThFPoT9.5
Evaluation of a Noninvasive Deep Body Thermometer in Measurement of Specific Positions		Correlation of Clinical Parameters with Cardiorespiratory Behavior in Successfully Extubated Extremely Preterm Infants	
Huang, Ming* <i>Nara Institute of Science and Technology</i> ; Tamura, Toshiyo <i>Osaka Electro-Communication Univ.</i> ; Chen, Wenxi <i>Univ. of Aizu</i> ; Ono, Naoaki <i>Nara Institute of Science and Technology</i> ; Sato, Tetsuo <i>Nara Inst of Science & Tech</i> ; Kanaya, Shigehiko <i>Nara Institute of Science and Technology</i>		Kanbar, Lara* <i>McGill Univ.</i> ; Shalish, Wissam <i>McGill Univ.</i> ; Robles-Rubio, Carlos Alejandro <i>McGill Univ.</i> ; Precup, Doina <i>McGill Univ.</i> ; Brown, Karen <i>McGill Univ.</i> ; Sant'Anna, Guilherme Mendes <i>McGill Univ.</i> ; Kearney, Robert Edward <i>McGill Univ.</i>	
16:00-17:30	ThFPoT8.3	16:00-17:30	ThFPoT9.6
Intuitive Wireless Control of a Robotic Arm for People Living with an Upper Body Disability		Accuracy and Optimization of a Subcutaneous Insulin Model for Less Acute Critical Care Patients	
Cheikh Latyr, Fall <i>Univ. Laval</i> ; Turgeon, Philippe <i>Univ. Laval</i> ; Maheu, Véronique <i>Kiniva</i> ; Lecours, Alexandre <i>Univ. Laval</i> ; Boukadoum, Mounir <i>Univ. of Quebec at Montréal</i> ; Roy, Sébastien <i>Univ. de Sherbrooke</i> ; Massicotte, Daniel <i>Univ. du Québec à Trois-Rivières</i> ; Gosselin, Clément <i>Univ. Laval</i> ; Gosselin, Benoit* <i>Laval Univ.</i>		Thomas, Felicity* <i>Univ. of Canterbury</i> ; Dickson, Jennifer <i>Univ. of Canterbury</i> ; Pretty, Christopher G. <i>Univ. of Canterbury</i> ; Stewart, Kent <i>Univ. of Canterbury</i> ; Fisk, Liam <i>Univ. of Canterbury</i> ; Shaw, Geoffrey M <i>Christchurch Hospital</i> ; Chase, J. Geoffrey <i>Univ. of Canterbury</i>	
16:00-17:30	ThFPoT8.4	16:00-17:30	ThFPoT9.7
Passive RFID Tag based Heart Rate Monitoring from an ECG Signal		Procoagulant Control Strategies for the Human Blood Clotting Process	
Vora, Shrenik* <i>Drexel Univ.</i> ; Dandekar, Kapil <i>Drexel Univ.</i> ; Kurzweg, Timothy <i>Drexel Univ.</i>		Laurino, Marco* <i>Scuola Superiore Sant'Anna</i> ; Menara, Tommaso <i>Univ. degli studi di Pisa</i> ; Stella, Alessandro <i>Univ. di Pisa</i> ; Betta, Monica <i>Univ. of Pisa</i> ; Landi, Alberto <i>Univ. of Pisa</i>	
16:00-17:30	ThFPoT8.5	16:00-17:30	ThFPoT9.8
An Eight-Legged Tactile Sensor to Estimate Coefficient of Static Friction		A Machine Learning Pipeline for Multiple Sclerosis Course Detection from Clinical Scales and Patient Reported Outcomes	
Chen, Wei <i>Univ. of New South Wales</i> ; Rodpongpun, Sura <i>Chulalongkorn Univ.</i> ; Luo, William <i>Univ. of New South Wales</i> ; Isaacson, Nathan <i>UNSW Australia</i> ; Kark, Lauren <i>Graduate School of Biomedical Engineering</i> ; Khamis, Heba <i>Univ. of Western Sydney</i> ; Redmond, Stephen James* <i>Univ. of New South Wales</i>		Fiorini, Samuele <i>Univ. of Genoa</i> ; Verri, Alessandro <i>Univ. of Genoa</i> ; Tacchino, Andrea <i>Italian MS Foundation</i> ; Ponzio, Michela <i>Italian MS Foundation</i> ; Bricchetto, Giampaolo <i>Italian MS Foundation</i> ; Barla, Annalisa* <i>Univ. of Genoa</i>	
16:00-17:30	ThFPoT8.6	16:00-17:30	ThFPoT9.9
Surface Deformation Tracking and Modeling of Soft Materials		Next Generation Patient Monitor Powered by In-Silico Physiology	
Parker, Matthew David <i>The Univ. of Auckland</i> ; Babarenda Gamage, Thiranjana <i>Auckland Bioengineering Institute, Univ. of Auckland</i> ; HajiRassouliha, Amir <i>The Univ. of Auckland</i> ; Taberner, Andrew <i>The Univ. of Auckland</i> ; Nash, Martyn <i>Univ. of Auckland</i> ; Nielsen, Poul* <i>The Univ. of Auckland</i>		Baronov, Dimitar* <i>Etiometry Inc.</i> ; McManus, Michael <i>Etiometry Inc.</i> ; Butler, Evan <i>Etiometry Inc.</i> ; Chung, Douglas <i>Etiometry Inc.</i> ; Almodovar, Melvin <i>Boston Children's Hospital</i>	
		16:00-17:30	ThFPoT9.10
		Mathematical Models of Tumor Growth using Voronoi Tessellations in Pathology Slides of Kidney Cancer	
		Saribudak, Aydin* <i>CCNY</i> ; Dong, Yiyu <i>MSKCC</i> ; Gundry, Stephen <i>City College of New York</i> ; Hsieh, James J. <i>MSKCC</i> ; Uyar, M. Umit <i>City College of New York</i>	

- 16:00-17:30 ThFPoT9.11
Extracting Reliable Gene Expression Signatures through Stable Bootstrap Validation
 Chlis, Nikolaos-Kosmas *Tech. Univ. of Crete*; Bei, Ekaterini *Tech. Univ. of Crete*; Moirogiorgou, Konstantina *Tech. Univ. of Crete*; Zervakis, Michalis* *Tech. Univ. of Crete, Greece*
- 16:00-17:30 ThFPoT9.12
Rank-Based MIRNA Signatures for Blood-Based Diagnosis of Tuberculosis
 Lauria, Mario* *COSBI*
- 16:00-17:30 ThFPoT9.13
Epileptic EEG Visualization and Sonification based on Linear Discriminate Analysis
 Chen, Wei *National Taiwan Univ.*; Shen, Chia-Ping *National Taiwan Univ.*; Chiu, Ming-Jang *Dept. of Neurology, National Taiwan Univ. Hospital, No.*; Zhao, Qibin *RIKEN Brain Science Institute*; Cichocki, Andrzej *BSI RIKEN*; Lin, Jeng-Wei* *Tunghai Univ.*; Lai, Feipei *National Taiwan Univ.*
- 16:00-17:30 ThFPoT9.14
Early Detection of Epilepsy Seizures based on a Weightless Neural Network
 Aguiar, Kleber de *Federal Univ. of Rio de Janeiro*; França, Felipe Maia Galvão *Federal Univ. of Rio de Janeiro*; Barbosa, Valmir Carneiro *Federal Univ. of Rio de Janeiro*; Teixeira, César* *Univ. of Coimbra*
- ThFPoT10: 16:00-17:30 Gold Room
5.14 Cardiac Electrophysiology II (Poster Session)
- 16:00-17:30 ThFPoT10.1
Magnetocardiograms Early Detection of Pulmonary Arterial Hypertension using Inverse Problem Analysis in Rat Model
 Yasuda, Shotaro* *Waseda Univ.*; Higanos, Sho *Waseda Univ.*; Ono, Yumie *Meiji Univ.*; Ishiyama, Atsushi *Waseda Univ.*; Minamisawa, Susumu *Jikei Univ. School of Medicine*; Kajimura, Ichige *Jikei Univ. School of Medicine*
- 16:00-17:30 ThFPoT10.2
Imaging of Cardiac Electrical Excitation Conduction
 Zhou, Dafang *Tongji Univ.*; Jiang, Shiqin* *Tongji Univ.*; Zhu, Jiachen *Tongji Univ.*; Zhao, Chen *Tongji Univ.*; Yan, Yurui *Tongji Univ.*; Grönemeyer, D *Dept. of Biomagnetism, Grönemeyer Institute for Microtherapy, Fa*; Van Leeuwen, Peter *Chair Radiology / Microtherapy, Univ. of Witten/Herdecke*
- 16:00-17:30 ThFPoT10.3
Computationally Efficient Method for Localizing the Spiral Rotor Source using Synthetic Intracardiac Electrograms during Atrial Fibrillation
 Shariat, Mohammad Hassan* *Queen's Univ., Kingston, Ontario, Canada*; Gazor, Saeed *Queen's Univ., Kingston, Ontario, Canada*; Redfearn, Damian P *Queen's Univ.*
- 16:00-17:30 ThFPoT10.4
Calcium Leak Induced Arrhythmias in Mouse Sino-Atrial Node and Ventricle Cells: A Simulation Study
 Wang, Qingjie *Dept. of Cardiology, Zhongda Hospital of Southeast Univ.*; Kharche, Sanjay *Univ. of Exeter*; Jones, Gareth *Univ. of Manchester*; Luo, Cunjin *School of Computer Science and Technology, Harbin Institute of T*; Tang, Chengchun *Dept. of Cardiology, Zhongda Hospital of Southeast Univ.*; Zhang, Henggui* *Univ. of Manchester*
- 16:00-17:30 ThFPoT10.5
Formation of Second-Degree Atrioventricular Blocks in the Cardiac Heterogeneous Oscillator Model
 Ryzhii, Elena *Univ. of Aizu*; Ryzhii, Maxim* *Univ. of Aizu*
- 16:00-17:30 ThFPoT10.6
Performance of Dower's Inverse Transform and Frank Lead System for Identification of Myocardial Infarction
 Aranda, Alfonso* *Medtronic*; Bonizzi, Pietro *Maastricht Univ.*; Karel, Joël *Maastricht Univ.*; Peeters, Ralf *Maastricht Univ.*
- 16:00-17:30 ThFPoT10.7
Computer Modeling of the Atria and Clinical Electrograms
 Doessel, Olaf* *Karlsruhe Institute of Technology (KIT)*; Luik, Armin *Staedtisches Klinikum Karlsruhe*; Oesterlein, Tobias *Institute of Biomedical Engineering, Karlsruhe Institute of Tech*; Rottmann, Markus *Institute of Biomedical Engineering, Karlsruhe Institute of Tech*; Verma, Bhawna *Institute of Biomedical Engineering, Karlsruhe Institute of Tech*; Schmitt, Claus *Staedtisches Klinikum Karlsruhe*
- 16:00-17:30 ThFPoT10.8
Feasibility of Visualizing Higher Regions of Shannon Entropy in Atrial Fibrillation Patients
 Poigai Arunachalam, Shivaram *Mayo Clinic*; Mulpuru, Siva *Mayo Clinic*; Friedman, Paul *Mayo Clinic*; Tolkacheva, Elena* *Univ. of Minnesota*
- 16:00-17:30 ThFPoT10.9
Spiral Wave Classification using Normalized Compression Distance: Towards Atrial Tissue Spatiotemporal Electrophysiological Behavior Characterization
 Alagoz, Celal* *Drexel Univ.*; Guez, Allon *Drexel Univ.*; Cohen, Andrew *Drexel Univ.*; Bullinga, John R *Penn Presbyterian Medical Center*
- 16:00-17:30 ThFPoT10.10
A Multi-Criteria Evaluation Method for Assessing the Defibrillation Outcome of Different Electrode Placements in Swine
 Lai, Dakun* *Univ. of Electronic Science and Technology of China*; Li, Pengye *Univ. of Electronic Science and Technology of China*; Xu, Qi *Univ. of Electronic Science and Technology of China*
- ThFPoT11: 16:00-17:30 Gold Room
5.15 Respiratory Engineering and Sleep Apnea (Poster Session)
- 16:00-17:30 ThFPoT11.1
Rib-Cage-Movement Measurements as a Potential New Trigger Signal in Non-Invasive Mechanical Ventilation
 Ivanovic, Marija* *Vinca Institute of Nuclear Sciences*; Petrovic, Jovana *Vinca Institute of Nuclear Sciences*; Miletic, Marjan *Vinca Institute of Nuclear Sciences, Univ. of Belgrade, Mik*; Danicic, Aleksandar *Vinca Institute of Nuclear Sciences*; Bojovic, Bosko *NewCardio, Inc*; Vukcevic, Miodrag *Bezanijska Kosa Hospital*; Lazovic, Biljana *Univ. Clinical Hospital Center Zemun-Dept of pulmonology*; Gluovic, Zoran *Univ. Clinical Hospital Center Zemun-Intensive care Unit*; Ljupco, Hadzievski *NewCardio, Inc*; Allsop, Thomas *Aston Institute of Photonic Technologies*; Webb, David *Aston Institute of Photonic Technologies*
- 16:00-17:30 ThFPoT11.2
Lung Assist Devices Influence Cardio-Energetic Parameters: Numerical Simulation Study
 De Lazzari, Claudio* *National Research Council (CNR)*; Quatember, Bernhard *Innsbruck Medical Univ.*; Recheis, Wolfgang *Medical Univ., Dept. Radiology*; Mayr, Martin *Univ. of Applied Sciences Wiener Neustadt*; Demertzis, Stefanos *Cardiocentro Ticino & Univ. of Bern*; Allasia, Giampietro *Univ. di Torino*; de Rossi, Alessandra *Univ. of Torino*; Cavoretto, Roberto *Univ. of Torino*; Venturino, Ezio *Univ. di Torino*; Genuini, Igino *Sapienza Univ.*
- 16:00-17:30 ThFPoT11.3
Retrospective Data-Driven Respiratory Gating for PET using TOF Information
 Wang, Mengdie *Tsinghua Univ./ Harvard Medical School*; Guo, Ning *Massachusetts General Hospital/Harvard Medical School*; Zhang, Hui *Tsinghua Univ.*; El Fakhri, Georges *Harvard Medical School, Massachusetts General Hospital*; Hu, Guangshu *Tsinghua Univ.*; Li, Quanzheng* *Harvard Medical School, Massachusetts General Hospital*
- 16:00-17:30 ThFPoT11.4
A Novel Method for Non-Invasive Respiration Monitoring
 Cook, Andrew J.* *Univ. of New South Wales, Sydney*; Gargiulo, Gaetano *The MARCS Institute (Univ. of Western Sydney)*; Cook, Rebekah *Univ. of Notre Dame Australia*; Ng, Ben *Prince of Wales Hospital*; Hindmarsh, Diane *Bureau of Health Information*; Lehmann, Torsten *Univ. of New South Wales*; Hamilton, Tara Julia *Univ. of New South Wales*

- 16:00-17:30 ThFPoT11.5
Comparing Consumption Oxygen during and after Squat Exercise in Smith Machine and Whole-Body Vibration
 Justo, Ana Catarina Garcia *Research Center in Sports, Health Sciences and Human Development*; Saavedra, Francisco José Félix *Research Center in Sports, Health Sciences and Human Development*; Vilaça-Alves, José *Research Center in Sports, Health Sciences and Human Development*; Rosa, Claudio *Research Center in Sports, Health Sciences and Human Development*; Neves, Eduardo Borba* *Federal Technological Univ. of Paraná (UTFPR)*; Reis, Victor Machado *Research Center in Sports, Health Sciences and Human Development*
- 16:00-17:30 ThFPoT11.6
A Polynomial Model of Patient-Specific Breathing Effort during Controlled Mechanical Ventilation
 Redmond, Daniel* *Univ. of Canterbury*; Docherty, Paul David *Univ. of Canterbury*; Chiew, Yeong Shiong *Univ. of Canterbury*; Chase, J. Geoffrey *Univ. of Canterbury*
- 16:00-17:30 ThFPoT11.7
Identifying Sleep Apnea Syndrome using Heart Rate and Breathing Effort Variation Analysis based on Ballistocardiography
 Zhao, Weichao* *Northwestern Polytechnical Univ.*; Ni, Hongbo *Northwestern Polytechnical Univ.*; Zhou, Xingshe *Northwestern Polytechnical Univ.*; Song, Yalong *Northwestern Polytechnical Univ.*; Wang, Tianben *Northwestern Polytechnical Univ.*
- 16:00-17:30 ThFPoT11.8
Analysis and Classification of Oximetry Recordings to Predict Obstructive Sleep Apnea Severity in Children
 Gutierrez, Gonzalo Cesar *Univ. of Valladolid*; Kheirandish-Gozal, Leila *Section of Sleep Medicine, Dept. of Pediatrics, Pritzker Sc*; Álvarez, Daniel *Univ. of Valladolid, CIF*; Crespo, Andrea *Hospital Univ. Rio Hortega, Valladolid*; Philby, Mona F. *Section of Sleep Medicine, Dept. of Pediatrics, Pritzker Sc*; Mohammadi, Meelad *Section of Sleep Medicine, Dept. of Pediatrics, Pritzker Sc*; del Campo, Félix *Hospital del Rio Hortega*; Gozal, David *Section of Sleep Medicine, Dept. of Pediatrics, Pritzker Sc*; Hornero, Roberto* *Univ. of Valladolid*
- 16:00-17:30 ThFPoT11.9
Computer-Assisted Diagnosis of the Sleep Apnea-Hypopnea Syndrome: An Overview of Different Approaches
 Alvarez-Estevéz, Diego* *Medisch Centrum Haaglanden*; Moret-Bonillo, Vicente A *Coruña Univ.*
- ThFPoT12: 16:00-17:30 Gold Room
6.35 Rehabilitation IV (Poster Session)
- 16:00-17:30 ThFPoT12.1
Development of the Bedridden Person Support System using Hand Gesture
 Ichimura, Kohei* *Tokai Univ.*; Magatani, Kazushige *Tokai Univ.*
- 16:00-17:30 ThFPoT12.2
Preliminary Evaluation of the Tactile Feedback System based on Artificial Skin and Electrotactile Stimulation
 Franceschi, Marta *Univ. of Genoa*; Seminara, Lucia* *Univ. of Genoa*; Pinna, Luigi *Univ. of Genoa*; Dosen, Strahinja *Univ. Medical Center, UMG, Goettingen*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medic*; Valle, Maurizio *Univ. of Genova*
- 16:00-17:30 ThFPoT12.3
Kinematic Analysis of Unilateral and Bilateral Drinking Task after Brain and Periphery Injuries
 Dimwamwa, Elaida *Univ. of Pennsylvania*; Johnson, Michelle* *Univ. of Pennsylvania*
- 16:00-17:30 ThFPoT12.4
Motor Control Investigation of Dystonic Cerebral Palsy: A Pilot Study of Passive Knee Trajectory
 Androwis, Ghaith* *Kessler Foundation, and New Jersey Institute of Tech.*; Michael, Peter *New Jersey Institute of Tech.*; Nolan, Karen *Human Performance and Engineering Laboratory (Kessler Foundation)*; Jewaid, Darine *New Jersey Institute of Tech.*; Strongwater, Allan *St. Joseph's Regional Medical Center*; Foulds, Richard *New Jersey Institute of Tech.*
- 16:00-17:30 ThFPoT12.5
Combined Robotic-Aided Gait Training and 3D Gait Analysis Provide Objective Treatment and Assessment of Gait in Children and Adolescents with Acquired Hemiplegia
 Molteni, Erika* *Scientific Institute, IRCCS E. Medea*; Beretta, Elena *IRCCS "E. Medea", Associazione La Nostra Famiglia, Bosisio Parini*; Altomonte, Daniele *Scientific Institute, IRCCS E. Medea*; Formica, Francesca *Scientific Institute, IRCCS E. Medea*; Strazzer, Sandra *IRCCS*
- 16:00-17:30 ThFPoT12.6
Improving Posture and Sitting Behavior through Tactile and Visual Feedback in a Sedentary Environment
 van Almerker, Marc *Eindhoven, Univ. of Technology*; Bierling, Bart *Eindhoven, Univ. of Technology*; Leermakers, Nono *Eindhoven Univ. of Technology*; Vinken, Jeroen *Eindhoven Univ. of Technology*; Timmermans, Annick A.A.* *Hasselt Univ.*
- 16:00-17:30 ThFPoT12.7
Smartphone App Design for the Wireless Control of a Neuromuscular Electrical Stimulator Device with Integrated Randomization Allocation Process for RCT Applications
 Sweeney, Dean *National Univ. of Ireland*; Quinlan, Leo* *National Univ. of Ireland*; ÓLaighin, Gearoid *National Univ. of Ireland Galway*
- 16:00-17:30 ThFPoT12.8
Design of Small-Size Pouch Motors for Rat Gait Rehabilitation Device
 Chang, Shih-Yin* *The Univ. of Tokyo*; Takashima, Kenta *Tokyo Univ.*; Nishikawa, Satoshi *The Univ. of Tokyo*; Niiyama, Ryuma *Univ. of Tokyo*; Someya, Takao *the Univ. of Tokyo*; Onodera, Hiroshi *Univ. of Tokyo Graduate School of Engineering*; Kuniyoshi, Yasuo *Univ. of Tokyo*
- 16:00-17:30 ThFPoT12.9
An EEG-Driven Lower Limb Rehabilitation Training System for Active and Passive Co-Stimulation
 Zhang, Xin *Xi'an Jiaotong Univ.*; Xu, Guanghua* *Xi'an Jiaotong Univ.*; Xie, Jun *Xi'an Jiaotong Univ.*; Li, Min *School of Mechanical Engineering, Xi'an Jiaotong Univ.*; Pei, Wei *Xi'an Jiaotong Univ.*; Zhang, Jinhua *Xi'an Jiaotong Univ.*
- 16:00-17:30 ThFPoT12.10
Neural Network Decoupling Technique and Its Application to a Powered Wheelchair System
 Nguyen, Tuan Nghia* *Univ. of Technology, Sydney*; Nguyen, Hung T. *Univ. of Technology, Sydney*
- 16:00-17:30 ThFPoT12.11
Cough Detection through Mechanomyographic Signal in Synchronized Respiratory Electrical Stimulation Systems
 Costa, Taisa Daiana da* *Federal Univ. of Technology - Parana State*; Nogueira-Neto, Guilherme *State Univ. of Campinas*; Nohama, Percy *Univ. Tecnológica Federal do Parana*
- 16:00-17:30 ThFPoT12.12
Oscillating Field Stimulation Promotes Recovery after Spinal Cord Injury in Rats: Assessment using Behavioral, Electrophysiological and Histological Evaluations
 Zhang, Cheng *Chinese Academy of Sciences, Beijing*; Zhang, Guanghao *Institute of Electrical Engineering, Chinese Academy of Sciences*; Wang, Aihua *Chinese Academy of Sciences*; Wu, Changzhe *Chinese Academy of Sciences*; Huo, Xiaolin* *Chinese Academy of Sciences*
- 16:00-17:30 ThFPoT12.13
Determination of Appropriate Imagery Task to Discriminate ERD of "Pinch" and "Hold" Movements in Healthy Participants and Stroke Patients
 Matsubara, Miku* *Meiji Univ.*; Kayanuma, Hidenori *Meiji Univ.*; Ono, Yumie *Meiji Univ.*; Omatsu, Satoko *Murata Hospital*; Tominaga, Takanori *Murata Hospital*
- 16:00-17:30 ThFPoT12.14
A New Methodology for Functional Principal Components Analysis from Scarce Data. Application to Stroke Rehabilitation
 Belda-Lois, Juan-Manuel* *Asociación Instituto de Biomecánica de Valencia*; Sánchez-Sánchez, Mariluz *Univ. de València*

- 16:00-17:30 ThFPoT12.15
Impaired Regulation Post-Stroke of Motor Unit Firing Behavior during Volitional Relaxation of Knee Extensor Torque Assessed using High Density Surface EMG Decomposition
 Murphy, Spencer *Marquette Univ.*; Berrios, Reivian *Marquette Univ.*; Nelson, Andrew *Medical College of Wisconsin*; Negro, Francesco *Bernstein Center for Computational Neuroscience, Univ. Medic*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medic*; Schmit, Brian *Marquette Univ.*; Hynstrom, Allison* *Marquette Univ.*
- 16:00-17:30 ThFPoT12.16
A Study on Cortico-Muscular Coupling in Finger Motions for Exoskeleton Assisted Neuro-Rehabilitation
 Chowdhury, Anirban* *IIT Kanpur*; Raza, Haider *Univ. of Ulster*; Dutta, Ashish *Indian Institute of Technology Kanpur*; Nishad, Shyam Sunder *IIT Kanpur*; Saxena, Anupam *IIT Kanpur*; Prasad, Girijesh *Univ. of Ulster*
- 16:00-17:30 ThFPoT12.17
A Shape-Based Helmet Fitting System for Concussion Protection
 Cai, Xingcheng* *Queen's Univ.*; Blostein, Dorothea *Queen's Univ.*; Saunders, Fraser W. *Kingston General Hospital*
- 16:00-17:30 ThFPoT12.18
Effect of Viewing Mode on Pathfinding in Immersive Virtual Reality
 White, Paul* *Univ. of Manitoba*; Byagowi, Ahmad *Univ. of Manitoba*; Moussavi, Zahra *Univ. of Manitoba*
- 16:00-17:30 ThFPoT12.19
Validating ArmAssist Assessment as Outcome Measure in Upper-Limb Post-Stroke Telerehabilitation
 Rodriguez-de-Pablo, Cristina* *TECNALIA*; Balasubramanian, Sivakumar *Imperial College London*; Savic, Andrej *School of Electrical Engineering, Belgrade Univ.*; Tomic, Tijana *Dimkic Clinic for Rehabilitation Dr Miroslav Zotović, Belgrade, Se*; Konstantinovic, Ljubica *Clinic for Rehabilitation Dr. Miroslav Zotović and the Univ*; Keller, Thierry *Tecnalia Research & Innovation*
- 16:00-17:30 ThFPoT12.20
Design and Fabrication of a Three Dimensional Printable Non-Assembly Articulated Hand Exoskeleton for Rehabilitation
 Cui, Lei* *Curtin Univ.*; Phan, Anthony *Curtin Univ.*; Allison, Garry *Curtin Univ.*
- 16:00-17:30 ThFPoT12.21
Data Glove Embedded with 9-Axis IMU and Force Sensing Sensors for Evaluation of Hand Function
 Hsiao, Pei-Chi *Dept. of Physical Medicine and Rehabilitation, Chi-Mei Medi*; Yang, Shu-Yu *Dept. of Physical Medicine and Rehabilitation, Chi-Mei Medi*; Lin, Bor-Shing *National Taipei Univ.*; Lee, I-Jung* *National Taipei Univ.*; Chou, Willy *Dept. of Physical Medicine and Rehabilitation, Chi-Mei Medi*
- 16:00-17:30 ThFPoT12.22
Powered Exoskeleton with Palm Degrees of Freedom for Hand Rehabilitation
 Richards, Daniel S *Dept. of Engineering, Univ. of Glasgow*; Georgilas, Ioannis* *Univ. of the West of England, EDM*; Dagnino, Giulio *Univ. of the West of England*; Dogramadzi, Sanja *Univ. of the West of England*
- 16:00-17:30 ThFPoT12.23
Heart Rate Regulation during Cycle-Ergometer Exercise via Bio-Feedback
 Argha, Ahmadreza* *Univ. of Tech., Sydney*; Su, Steven Weidong *Univ. of Tech., Sydney*; Nguyen, Hung T. *Univ. of Tech., Sydney*; Celler, Branko George *Univ. of New South Wales*
- 16:00-17:30 ThFPoT12.24
Bimanual Elbow Exoskeleton: Force based Protocol and Rehabilitation Quantification
 Alavi, Nezam* *Simon Fraser Univ.*; Herrnstadt, Gil *Simon Fraser Univ.*; Randhawa, Bubblepreet *Simon Fraser Univ.*; Boyd, Lara *Univ. of British Columbia*; Menon, Carlo *Simon Fraser Univ.*
- 16:00-17:30 ThFPoT12.25
Evaluation of an Objective Listening Effort Measure in a Selective, Multi-Speaker Listening Task using Different Hearing Aid Settings
 Schäfer, Patrick Johannes* *Systems Neuroscience and NeuroTechnology Unit, NeuroCenter, Facu*; Serman, Maja *Sivantos GmbH, Erlangen, Germany*; Arnold, Mirko *Sivantos GmbH, Erlangen, Germany*; Corona-Strauss, Farah I. *Saarland Univ. Hospital*; Strauss, Daniel J. *Saarland Univ., Medical Faculty*; Seidler-Fallböhrer, Birgit *TTHZ GmbH*; Seidler, Harald *MediClin Bosenberg Kliniken*
- 16:00-17:30 ThFPoT12.26
Determining Inertial Measurement Unit Placement for Estimating Human Trunk Sway While Standing, Walking and Running
 Yu, Bo *Shanghai JiaoTong Univ.*; Bao, Tian *Univ. of Michigan*; Zhang, Dingguo *Shanghai Jiao Tong Univ.*; Carender, Wendy *Univ. of Michigan Health System*; Sienko, Kathleen H. *Univ. of Michigan*; Shull, Peter B.* *Shanghai Jiao Tong Univ.*
- 16:00-17:30 ThFPoT12.27
MovAid a Novel Device for Advanced Rehabilitation Monitoring
 Gupta, Prashant* *Manav Rachna College of Engineering, Faridabad*; Verma, Piyush *Manav Rachna College of Engineering, Faridabad*; Gupta, Rakesh *Post Graduate Institute of Medical Science*; Verma, Bhawna *Post Graduate Institute of Medical Science, Rohtak, Haryana*
- 16:00-17:30 ThFPoT12.28
Injury Potentials of Spinal Cord in Ex Vivo Compression Injury Model
 Wang, Aihua *Chinese Academy of Sciences*; Zhang, Guanghao *Institute of Electrical Engineering, Chinese Academy of Sciences*; Zhang, Cheng *Chinese Academy of Sciences, Beijing*; Huo, Xiaolin* *Chinese Academy of Sciences*; Song, Tao *Chinese Academy of Sciences*
- 16:00-17:30 ThFPoT12.29
A Body-Machine Interface for Training Selective Pelvis Movements in Stroke Survivors: A Pilot Study
 Summa, Susanna* *Univ. of Genoa*; Pierella, Camilla *Univ. of Genoa, Genoa, Italy*; Giannoni, Psiche *ART Education and Rehabilitation Dept. sri*; Sciacchitano, Alessio *Univ. of Genoa*; Iacovelli, Selene *Univ. of Genoa*; Farshchiansadegh, Ali *Northwestern Univ.*; Mussa-Ivaldi, Ferdinando *Northwestern Univ.*; Casadio, Maura *Univ. of Genoa*
- 16:00-17:30 ThFPoT12.30
A Wearable Device for Monitoring and Prevention of Repetitive Ankle Sprain
 Attia, Mohammed* *Cairo Univ.*; Taher, Mona *Cairo Univ.*
- 16:00-17:30 ThFPoT12.31
Preliminary Assessment of Variable Geometry Stair Ascent and Descent with a Powered Lower Limb Orthosis for Individuals with Paraplegia
 Ekelem, Andrew* *Vanderbilt Univ.*; Murray, Spencer *Vanderbilt Univ.*; Goldfarb, Michael *Vanderbilt Univ.*
- 16:00-17:30 ThFPoT12.32
Comparison between the Therapeutic Effects of Robotic-Assisted Locomotor Training AND an Anti-Spastic Medication on Spasticity
 Mirbagheri, Mehdi* *Northwestern Univ./RIC*
- ThFPoT13: 16:00-17:30 Gold Room
6.36 Brain Physiology and Modeling III (Poster Session)
- 16:00-17:30 ThFPoT13.1
Neural Correlates of Ankle Movements during Different Motor Tasks: A Feasibility Study
 Marre, Ilaria *Univ. of Genoa*; Iandolo, Riccardo *Univ. of Genoa*; Bellini, Alessandro *Univ. of Genoa*; Bommarito, Giulia *Univ. of Genoa*; Niels, Oesingmann *Mount Sinai School of Medicine, New York*; Fleysher, Lazar *Mount Sinai School of Medicine, New York*; Levrero, Fabrizio *Univ. of Genoa*; Mancardi, Gianluigi *Univ. of Genoa*; Casadio, Maura *Univ. of Genoa*; Inglese, Matilde* *Icahn School of Medicine at Mount Sinai, New York*

16:00-17:30	ThFPoT13.2	Combining Sudomotor Nerve Impulse Estimation with FMRI to Investigate the Central Sympathetic Response to Nausea Sclocco, Roberta* <i>Politecnico di Milano</i> ; Citi, Luca <i>Univ. of Essex</i> ; Garcia, Ronald <i>Massachusetts General Hospital</i> ; Cerutti, Sergio <i>Politecnico di Milano</i> ; Bianchi, Anna Maria <i>Politecnico di Milano</i> ; Kuo, Braden <i>Massachusetts General Hospital, Harvard Medical School</i> ; Napadow, Vitaly <i>Massachusetts General Hospital</i> ; Barbieri, Riccardo <i>MGH-Harvard Medical School-MIT</i>	Gold Room
16:00-17:30	ThFPoT13.3	The Brain Responses to Different Frequencies of Binaural Beat Sounds on QEEG at Cortical Level Jirakittayakorn, Nantawachara <i>Mahidol Univ.</i> ; Wongsawat, Yodchanan* <i>Mahidol Univ.</i>	6.37 Neural Signal Processing III (Poster Session)
16:00-17:30	ThFPoT13.4	Tendency to Overestimate the Explicit Time Interval in Relation to Aging and Cognitive Decline Ranjbar Pouya, Omid* <i>Univ. of Manitoba</i> ; Kelly, Debbie <i>Univ. of Manitoba</i> ; Moussavi, Zahra <i>Univ. of Manitoba</i>	16:00-17:30 ThFPoT14.1
16:00-17:30	ThFPoT13.5	Cooperation Driven Coherence: Brains Working Hard Together Bezerianos, Anastasios* <i>National Univ. of Singapore</i> ; Sun, Yu <i>National Univ. of Singapore</i> ; Chen, Yu <i>National Univ. of Singapore</i> ; Wong, Kian Foong <i>National Univ. of Singapore</i> ; Taya, Fumihiko <i>National Univ. of Singapore</i> ; Arico, Pietro <i>Fondazione Santa Lucia</i> ; Borghini, Gianluca <i>Univ. of Rome Sapienza</i> ; Babiloni, Fabio <i>Univ. of Rome</i> ; Thakor, Nitish <i>Johns Hopkins Univ.</i>	Quantifying in Vivo and in Vitro Neuronal Bursts by an Automated Adaptive Burst Detection Algorithm and Entropy Measures Kapucu, Fikret Emre* <i>Tampere Univ. of Tech.</i> ; Mikkonen, Jarno <i>Eelis Univ. of Jyväskylä</i> ; Tanskanen, Jarno M. A. <i>Tampere Univ. of Tech.</i> ; Hyttinen, Jari <i>Tampere Univ. of Tech.</i>
16:00-17:30	ThFPoT13.6	3D Axonal Network Coupled to Microelectrode Arrays: A Simulation Model to Study Neuronal Dynamics Appali, Revathi* <i>Univ. of Rostock</i> ; Sriperebudur, Kiran K <i>Univ. of Rostock</i> ; van Rienen, Ursula <i>Univ. of Rostock</i>	16:00-17:30 ThFPoT14.2
16:00-17:30	ThFPoT13.7	Electrical Neurostimulation for Chronic Pain: On Selective Relay of Sensory Neural Activities in Myelinated Nerve Fibers Sacré, Pierre* <i>Johns Hopkins Univ.</i> ; Sarma, Sridevi V. <i>Johns Hopkins Univ.</i> ; Guan, Yun <i>Johns Hopkins Univ. School of Medicine</i> ; Anderson, William S. <i>Johns Hopkins School of Medicine, Dept. of Neurosurgery</i>	Electroencephalographic Spectral Correlates of Caress-Like Affective Haptic Stimuli Valenza, Gaetano* <i>Univ. of Pisa-MGH-Harvard Medical School</i> ; Greco, Alberto <i>Univ. of Pisa</i> ; Nardelli, Mimma <i>Univ. of Pisa</i> ; Bianchi, Matteo <i>Univ. of Pisa</i> ; Lanata, Antonio <i>Univ. of Pisa</i> ; Rossi, Simone <i>Azienda Ospedaliera Univ. of Siena</i> ; Scilingo, Enzo Pasquale <i>Univ. of Pisa</i>
16:00-17:30	ThFPoT13.8	Balance of Synaptic and Electrotonic Connections Controls the Excitability of Networks in Biophysical Model of Epilepsy Grigorovsky, Vasily* <i>Univ. of Toronto</i> ; Bardakjian, Berj Luther <i>Univ. of Toronto</i>	16:00-17:30 ThFPoT14.3
16:00-17:30	ThFPoT13.9	A Million-Plus Neuron Model of the Hippocampal Dentate Gyrus: Dependency of Spatio-Temporal Network Dynamics on Topography Hendrickson, Phillip* <i>Univ. of Southern California</i> ; Yu, Gene <i>Univ. of Southern California</i> ; Song, Dong <i>Univ. of Southern California</i> ; Berger, Theodore <i>Univ. of Southern California</i>	Emergence of Critical Dynamics in Large-Scale in Vitro Cortical Networks Massobrio, Paolo* <i>Univ. of Genova</i> ; Pasquale, Valentina <i>Istituto Italiano di Tecnologia</i> ; Martinoia, Sergio <i>Univ. of Genova</i>
16:00-17:30	ThFPoT13.10	Classification of Finger Vibrotactile Input using Scalp EEG He, Yongtian* <i>Univ. of Houston</i> ; Contreras-Vidal, José <i>Univ. of Houston</i>	16:00-17:30 ThFPoT14.4
16:00-17:30	ThFPoT13.11	Anesthesia Effect on Single Local Field Potentials Variability in Rat Barrel Cortex: Preliminary Results Cecchetto, Claudia <i>Univ. of Padova</i> ; Mahmud, Mufti <i>Univ. of Padova</i> ; Vassanelli, Stefano* <i>NeuroChip Laboratory, Univ. of Padova</i>	Beta/Theta Ratio Neurofeedback Training Effects on the Spectral Topography of EEG Yang, Limin <i>Univ. of Macau</i> ; Nan, Wenya <i>Univ. of Macau, Dept. of Electrical & Electronics</i> ; Qu, Xiaoting <i>Univ. of Macau</i> ; Wan, Feng* <i>Univ. of Macau</i> ; Mak, Pui-In <i>Univ. of Macau</i> ; Mak, Peng <i>Univ. of Macau</i> ; Vai, Mang I. <i>Univ. of Macau</i> ; Hu, Yong <i>The Univ. of Hong Kong</i> ; Rosa, Agostinho <i>Claudio da Technical Univ. of Lisbon</i>
16:00-17:30	ThFPoT13.12	Investigating the Correlation between the Neural Activity and Task Performance in a Psychomotor Vigilance Test Hu, Zhongze <i>Tsinghua Univ.</i> ; Thakor, Nitish <i>Johns Hopkins Univ.</i> ; Bezerianos, Anastasios <i>National Univ. of Singapore</i> ; Sun, Yu* <i>National Univ. of Singapore</i>	16:00-17:30 ThFPoT14.5
			Neural Network based Forward Prediction of Bladder Pressure using Pudendal Nerve Electrical Activity Geramipour, Arezou <i>Iran Univ. of Science and Technology</i> ; Makki, Saeid <i>Iran Univ. of Science and Technology</i> ; Erfanian, Abbas* <i>Iran Univ. of Science and Technology</i>
			16:00-17:30 ThFPoT14.6
			Filter Bank Common Spatial Patterns in Mental Workload Estimation Arvanah, Mahnaz* <i>Trinity College Dublin</i> ; Umilta, Alberto <i>School of Psychology, Univ. of Padova, Padova, Ital</i> ; Robertson, Ian <i>Trinity College Dublin</i>
			16:00-17:30 ThFPoT14.7
			Spectra of Infant EEG within the First Year of Life: A Pilot Study Xiao, Ran <i>Univ. of Oklahoma</i> ; Qi, Xiao <i>Univ. of Oklahoma</i> ; Fagg, Andrew <i>Univ. of Oklahoma</i> ; Kolobe, Thubi <i>Univ. of Oklahoma Health Sciences Center</i> ; Miller, David <i>Univ. of Oklahoma</i> ; Ding, Lei* <i>Univ. of Oklahoma</i>
			16:00-17:30 ThFPoT14.8
			EEG-Based Time and Spatial Interpretation of Activation Areas for Relaxation and Words Writing between Poor and Capable Dyslexic Children Mohamad, Noor Bariah <i>Univ. Teknologi MARA</i> ; Lee, Khuan Y.* <i>Univ. Teknologi MARA</i> ; Mansor, Wahidah <i>Univ. Teknologi MARA</i> ; Mahmoodin, Zulkifli <i>Univ. Kuala Lumpur British Malaysian Institute</i>
			16:00-17:30 ThFPoT14.9
			Impact of Stimuli Distribution on Neural Network Responses Scarsi, Francesca <i>Univ. di Genova</i> ; Tessadori, Jacopo <i>IIT - Italian Institute of Tech.</i> ; Pasquale, Valentina <i>Istituto Italiano di Tecnologia</i> ; Chiappalone, Michela* <i>Italian Institute of Tech.</i>
			16:00-17:30 ThFPoT14.10
			A Computationally Efficient Order Statistics based Outlier Detection Technique for EEG Signals Giri, Bapun K <i>IISER Kolkata</i> ; Sarkar, Soumajyoti <i>IISER, Shibpur</i> ; Mazumder, Satyaki <i>IISER Kolkata</i> ; Das, Koel* <i>Indian Institute of Science Education and Research, Kolkata</i>

- 16:00-17:30 ThFPoT14.11
Classification of Awake, REM, and NREM from EEG via Singular Spectrum Analysis
 Mahvash Mohammadi, Sara* *London South Bank Univ.*; Enshaeifar, Shirin *Dept. of Computing, Univ. of Surrey*; Ghavami, Mohammad *London South Bank Univ.*; Sanei, Saeid *Univ. of Surrey*
- 16:00-17:30 ThFPoT14.12
Feasibility of Blind Source Separation Methods for the Denoising of Dense-Array EEG
 Taheri, Nasrin* *Electrical Engineering Shahid Chamran Univ.*; Kachenoura, Amar *Univ. de Rennes1 and INSERM*; Ansari-Asl, Karim *Shahid Chamran Univ. of Ahvaz*; Karfoul, Ahmad *Al-Baath Univ.*; Senhadji, Lotfi *Univ. de Rennes 1 and INSERM*; Albera, Laurent *Univ. de Rennes 1 and INSERM*; Merlet, Isabelle *INSERM - Univ. de Rennes 1*
- ThFPoT15: 16:00-17:30 Gold Room
8.19 Prosthetics and Orthotics (Poster Session)
- 16:00-17:30 ThFPoT15.1
Combining Human Volitional Control with Intrinsic Controller on Robotic Prosthesis: A Case Study on Adaptive Slope Walking
 Chen, Baojun *Peking Univ.*; Wang, Qining* *Peking Univ.*
- 16:00-17:30 ThFPoT15.2
Structure Design for a Two-DoF Myoelectric Prosthetic Hand to Realize Basic Hand Functions in ADLs
 Hoshikawa, Suguru* *The Univ. of Electro-Communications*; Jiang, Yinlai *The Univ. of Electro-Communications*; Kato, Ryu *The Univ. of Tokyo*; Morishita, Soichiro *Univ. of Electro-Communications*; Nakamura, Tatsuhiko *The Univ. of Tokyo*; Yabuki, Yoshiko *The Univ. of Electro-Communications*; Yokoi, Hiroshi *Univ. of Tokyo*
- 16:00-17:30 ThFPoT15.3
Real-Time Gait Event Detection for Transfemoral Amputees during Ramp Ascending and Descending
 Maqbool, H.F.* *Univ. of Leeds*; Husman, M.A. *Univ. of Leeds*; Awad, M.I. *Univ. of Leeds*; Abouhossein, A. *Univ. of Leeds*; Dehghani-Sanij, A.A. *Univ. of Leeds*
- 16:00-17:30 ThFPoT15.4
Application of Metal Hydride Paper to Simple Pressure Generator for use in Soft Actuator Systems
 Ino, Shuichi* *National Institute of Advanced Industrial Science and Tech.*; Sakaki, Kouji *National Institute of Advanced Industrial Science and Tech.*; Hosono, Minako *Industrial Research Institute of Shizuoka Prefecture*; Doi, Kouki *National Institute of Special Needs Education*; Shimada, Shigenobu *Tokyo Metropolitan Industrial Tech. Research Institute*; Chikai, Manabu *National Institute Advanced Industrial Science and Tech.*
- 16:00-17:30 ThFPoT15.5
Performance Evaluation of the Extra Corporeal Enteral Prosthesis (ECEP) vs a By-Pass
 Sozanski, Jean Pierre* *INSERM*; De Jonckheere, Julien *CHRU de Lille*; Jeanne, Mathieu *CHRU de Lille*; Logier, Regis *CHRU de Lille*; Nzamushu, Jean-Robert *CHRU Lille*
- 16:00-17:30 ThFPoT15.6
Lightweight Custom Composite Prosthetic Components using an Additive Manufacturing-Based Molding Technique
 Leddy, Michael* *Yale Univ.*; Belter, Joseph *Yale Univ.*; Gemmell, Jr., Kevin *Yale Univ.*; Dollar, Aaron *Yale Univ.*
- 16:00-17:30 ThFPoT15.7
Modification of Hemiplegic Compensatory Gait Pattern by Symmetry-Based Motion Controller of HAL
 Kawamoto, H.* *Univ. of Tsukuba*; Kadone, H. *Univ. of Tsukuba*; Sakurai, T. *Univ. of Tsukuba*; Sankai, Y. *Univ. of Tsukuba*
- 16:00-17:30 ThFPoT15.8
Development of Stewart Platform Type Ankle-Foot Device for Trip Prevention Support
 Nomura, Kenta* *Tokyo Univ. of Science*; Yonezawa, Teru *Tokyo Univ. of Science*; Ogitsu, Takeki *Tokyo Univ. of Science*; Mizoguchi, Hiroshi *Tokyo Univ. of Science*; Takemura, Hiroshi *Tokyo Univ. of Science*
- 16:00-17:30 ThFPoT15.9
Selective Linear-Regression Model for Hand Posture Discrimination and Grip Force Estimation using Surface Electromyogram Signals
 Yamanoi, Yusuke* *the Univ. of Electro-Communications*; Morishita, Soichiro *Univ. of Electro-Communications*; Kato, Ryu *The Univ. of Tokyo*; Yokoi, Hiroshi *Univ. of Tokyo*
- 16:00-17:30 ThFPoT15.10
Stress Analysis of Two Craniofacial Implants in Implant Retained Auricular Protheses
 Chanthasopeephan, Teeranoot* *King Mongkut's Univ of Tech Thonburi*
- 16:00-17:30 ThFPoT15.11
Application of Neural based Estimation Algorithm for Gait Phases of Above Knee Prosthesis
 Tileylioglu, Emre* *Hacettepe Univ.*; Yilmaz, Atila *Hacettepe Univ.*
- 16:00-17:30 ThFPoT15.12
A Bio-Inspired Force Control for Cyclic Manipulation of Prosthetic Hands
 Ciancio, Anna Lisa* *Univ. Campus Bio-Medico di Roma*; Barone, Roberto *Univ. Campus Bio-Medico di Roma*; Zollo, Loredana *Univ. Campus Bio-Medico*; Carpino, Giorgio *Campus Bio-Medico Univ.*; Davalli, Angelo *INAIL Prosthesis Center*; Sacchetti, Rinaldo *Centro Protesi INAIL, Budrio*; Guglielmelli, Eugenio *Campus Bio-Medico Univ.*
- 16:00-17:30 ThFPoT15.13
Stable Force-Myographic Control of a Prosthetic Hand using Incremental Learning
 Rasouli, Mahdi* *National Univ. of Singapore*; Ghosh, Rohan *National Univ. of Singapore*; lee, Wang Wei *National Univ. of Singapore*; Thakor, Nitish *Johns Hopkins Univ.*; Kukreja, Sunil *National Univ. of Singapore*
- 16:00-17:30 ThFPoT15.14
Development of an Eye Tracking Medical Headlamp
 Lee, Sangjoon* *Sun Moon Univ.*
- ThFPoT16: 16:00-17:30 Gold Room
8.20 Modeling in Biorobotics (Poster Session)
- 16:00-17:30 ThFPoT16.1
Method for Estimating the Temperature Distribution Associated with the Vessel Cooling Effect in Radio Frequency Ablation
 Lu, Xiaowei* *Waseda Univ.*; Kikuchi, Hayato *Waseda Univ.*; Hirooka, Kazumasa *Waseda Univ.*; Isobe, Yosuke *Waseda Univ.*; Watanabe, Hiroki *Waseda Univ.*; Kobayashi, Yo *Waseda Univ.*; Miyashita, Tomoyuki *Waseda Univ.*; Fujie, Masakatsu G. *Waseda Univ.*
- 16:00-17:30 ThFPoT16.2
Modelling Needle Forces during Insertion into Soft Tissue
 Cheng, Zhuoqi* *Istituto Italiano di Tecnologia*; Chauhan, Manish *Istituto Italiano di Tecnologia*; Davies, Brian *Imperial College London*; Caldwell, Darwin G. *Italian Institute of Technology*; Mattos, Leonardo *IIT - Istituto Italiano di Tecnologia*
- 16:00-17:30 ThFPoT16.3
Prediction of Mechanical Behaviour from Histology in Thin Collagenous Tissues
 Brooks, Robert Joseph* *Hostpital for Sick Children, Univ. of Toronto*; Looi, Thomas *CIGITI, Hospital for Sick Children*; Drake, James *Univ. of Toronto, CIGITI, Hospital for Sick Children*
- ThFPoT17: 16:00-17:30 Gold Room
8.21 Surgical Robotics II (Poster Session)
- 16:00-17:30 ThFPoT17.1
Master Device for Teleoperated Needle Insertion-Type Interventional Robotic System
 Woo, Hyun Soo* *KIMM*; Cho, Jang Ho *KAIST*; Kim, Chul Seung *KIMM*; Lee, Hyuk Jin *KIMM*

- 16:00-17:30 ThFPoT17.2
Design Optimization of Neuroendoscopic Continuum Instruments for Third Ventriculostomy and Tumor Biopsy
 Eastwood, Kyle* *Univ. of Toronto*; Lool, Thomas *CIGITI, Hospital for Sick Children*; naguib, Hani *Univ. of Toronto*; Drake, James *Univ. of Toronto, CIGITI, Hospital for Sick Children*
- 16:00-17:30 ThFPoT17.3
Redundancy Optimization Strategy for Hands-On Robotic Surgery
 Barra, Beatrice *Politecnico di Milano*; Beretta, Elisa *Politecnico di Milano*; Nessi, Federico *Politecnico di Milano*; Ferrigno, Giancarlo *Politecnico di Milano*; De Momi, Elena* *Politecnico di Milano*
- 16:00-17:30 ThFPoT17.4
Comfort and Learnability Assessment of a New Soft Robotic Manipulator for Minimally Invasive Surgery
 Shafti, Ali* *King's College London*; Andorno, Federica *Univ. of Turin*; Marchese, Nicola *Univ. of Turin*; Arolfo, Simone *Univ. of Turin*; Aydin, Abdullatif *King's College London*; Elhage, Oussama *King's College London*; Noh, Yohan *King's College London*; Wurdemann, Helge Arne *King's College London*; Arezzo, Alberto *Univ. of Turin*; Dasgupta, Prokar *Guys Hospital*; Althoefer, Kaspar *King's College London*
- 16:00-17:30 ThFPoT17.5
Design and Real-Time Control of a Robotic System for Fracture Manipulation
 Dagnino, Giulio* *Univ. of the West of England*; Georgilas, Ioannis *Univ. of the West of England, EDM*; Tarassoli, Payam *Univ. Hospitals Bristol*; Atkins, Roger *Univ. Hospitals Bristol*; Dogramadzi, Sanja *Univ. of the West of England*
- 16:00-17:30 ThFPoT17.6
Closed-Loop Asymmetric-Tip Needle Steering Under Continuous Intraoperative MRI Guidance
 Patel, Niravkumar* *Worcester Polytechnic Institute*; van Katwijk, Tim *Univ. of Twente*; Li, Gang *Worcester Polytechnic Institute*; Moreira, Pedro *LIRMM-UMR CNRS, Univ. of Montpellier II*; Shang, Weijian *Brigham and Women's Hospital and Harvard Medical School*; Misra, Sarthak *Univ. of Twente*; Fischer, Gregory *Worcester Polytechnic Institute*
- 16:00-17:30 ThFPoT17.7
Motion Prediction using Dual Kalman Filter for Robust Beating Heart Tracking
 Yang, Bo* *Univ. of Electronic Science and Technology of China*; Liu, Chao *LIRMM - CNRS*; Poignet, Philippe *LIRMM, UMR CNRS 5506, Univ. of Montpellier II*; Zheng, Wenfeng *Univ. of Electronic Science and Technology of China*; Liu, Shan *Univ. of Electronic Science and Technology of China*
- 16:00-17:30 ThFPoT17.8
Robot Assisted Stapedotomy Ex Vivo with an Active Handheld Instrument
 Vendrametto, Tobia *Politecnico di Milano*; McAfee, Jacob S. *Univ. of Pittsburgh Medical Center, Pittsburgh*; Hirsch, Barry E. *Univ. of Pittsburgh Medical Center*; Riviere, Cameron N. *Carnegie Mellon Univ.*; Ferrigno, Giancarlo *Politecnico di Milano*; De Momi, Elena* *Politecnico di Milano*
- 16:00-17:30 ThFPoT17.9
Design and Development of Magnetorheological Fluid-Based Passive Actuator
 Shokrollahi, Elnaz* *Univ. of Toronto*; Price, Karl *Univ. of Toronto*; Drake, James *Univ. of Toronto, CIGITI, Hospital for Sick Children*; Goldenberg, Andrew A. *Univ. of Toronto*
- 16:00-17:30 ThFPoT17.10
Design and Evaluation of a Trilateral Shared-Control Architecture for Teleoperated Training Robots
 Shamaei, Kamran* *Stanford Univ.*; Kim, Lawrence H. *Stanford Univ.*; Okamura, Allison *Stanford Univ.*
- 16:00-17:30 ThFPoT17.11
Enhanced Position-Force Tracking of Time-Delayed Teleoperation for Robotic-Assisted Surgery
 Guo, Jing* *LIRMM, CNRS & Univ. of Montpellier 2*; Liu, Chao *LIRMM - CNRS*; Poignet, Philippe *LIRMM, UMR CNRS 5506, Univ. of Montpellier II*
- 16:00-17:30 ThFPoT17.12
Preliminary Study for Motion Scaling based Control in Minimally Invasive Vascular Interventional Robot
 Feng, Zhen-Qiu *Institute of Automation, Chinese Academy of Sciences*; Bian, Gui-Bin *Institute of Automation, Chinese Academy of Sciences*; Xie, Xiao-Liang *Chinese Academy of Sciences*; Hao, Jian-Long *Institute of Automation Chinese Academy of Sciences*; Gao, Zhan-Jie *Institute of Automation Chinese Academy of Science*; Hou, Zeng-Guang* *Institute of Automation, Chinese Academy of Sciences*
- 16:00-17:30 ThFPoT17.13
Preliminary Analysis of Force-Torque Measurements for Robot-Assisted Fracture Surgery
 Georgilas, Ioannis* *Univ. of the West of England, EDM*; Dagnino, Giulio *Univ. of the West of England*; Tarassoli, Payam *Univ. Hospitals Bristol*; Atkins, Roger *Univ. Hospitals Bristol*; Dogramadzi, Sanja *Univ. of the West of England*
- 16:00-17:30 ThFPoT17.14
Haptic Interface for Robot-Assisted Ophthalmic Surgery
 Barthel, Alexander *Technische Univ. Muenchen*; Trematerra, Diego *Technische Univ. Muenchen*; Nasser, M. Ali* *Technische Univ. Muenchen*; Zapp, Daniel *Augen Klinik rechts der Isar, Technische Univ. Muenchen*; Lohmann, Chris *Klinikum Rechst der isaar, Muenchen*; Knoll, Alois *Technical Univ. Munich*; Maier, Mathias *Klinikum Rechst der isaar, Muenchen*
- 16:00-17:30 ThFPoT17.15
Computer-Assisted Single-Stage Cranioplasty
 Murphy, Ryan J.* *Johns Hopkins Univ. Applied Physics Laboratory*; Wolfe, Kevin C. *Johns Hopkins Univ. Applied Physics Laboratory*; Liacouras, Peter C. *Walter Reed National Military Medical Center*; Grant, Gerald T. *Walter Reed National Military Medical Center*; Gordon, Chad R. *Johns Hopkins Univ. School of Medicine*; Armand, Mehran *Johns Hopkins Univ. Applied Physics Laboratory*
- 16:00-17:30 ThFPoT17.16
Volumetric Compensation of Accuracy Errors in a Multi-Robot Surgical Platform
 Vicentini, Federico* *CNR - National Research Council of Italy*; Magnoni, Paolo *National Research Council of Italy (CNR)*; Giussani, Matteo *National Research Council of Italy (CNR)*; Molinari Tosatti, Lorenzo *CNR - National Research Council*
- 16:00-17:30 ThFPoT17.17
BCI-Based User Training in Surgical Robotics
 Olivieri, Emidio* *Istituto Italiano di Tecnologia*; Barresi, Giacinto *Istituto Italiano di Tecnologia*; Mattos, Leonardo *IIT - Istituto Italiano di Tecnologia*
- 16:00-17:30 ThFPoT17.18
3D-Printed Soft Microbot for Swimming in Biological Fluids
 Qiu, Tian *Max Planck Institute for Intelligent Systems*; Palagi, Stefano *Max Planck Institute for Intelligent Systems*; Fischer, Peer* *Max Planck Institute for Intelligent Systems*
- 16:00-17:30 ThFPoT17.19
Requirements Analysis and Preliminary Design of a Robotic Assistant for Reconstructive Microsurgery
 Vanthournhout, Léna* *Univ. Catholique de Louvain*; Herman, Benoît *Univ. Catholique de Louvain*; Duisit, Jérôme *Univ. Catholique de Louvain*; Château, François *Univ. Catholique de Louvain*; Szcwzyk, Jerome *Univ. Pierre et Marie Curie - Paris 6*; Lengelé, Benoît *Univ. Catholique de Louvain*; Raucant, Benoît *Univ. Catholique de Louvain*

ThFPoT18: 16:00-17:30 Gold Room
10.12 Wireless/Ubiquitous Technologies and Systems
 (Poster Session)

- 16:00-17:30 ThFPoT18.1
Preliminary Assessment of the SensiumVitals®: A Low-Cost Wireless Solution for Patient Surveillance in the General Wards
 Hernandez Silveira, Miguel* *Sensium Healthcare Ltd*; Wiczorkowski-Rettinger, Ksawery *Franciszek Sensium Healthcare Ltd.*; Ang, Su-Shin *Toumaz Technology*; Burdett, Alison *Toumaz Technology Ltd.*

- 16:00-17:30 ThFPoT18.2
ROI Analysis for Remote Photoplethysmography on Facial Video
 Kwon, Sungjun* *Seoul National Univ.*; Kim, Jeehoon *Seoul National Univ.*; Lee, Dongseok *Seoul National Univ.*; Park, Kwang S. *Seoul National Univ.*
- 16:00-17:30 ThFPoT18.3
Estimation of Sleep Posture using a Patch-Type Accelerometer based Device
 Yoon, Heenam *Seoul National Univ.*; Hwang, Suhwan *Seoul National Univ.*; Jung, Dawoon *Seoul National Univ.*; Choi, Sangho *Seoul National Univ.*; Joo, Kwangmin *Seoul National Univ.*; Choi, Jaewon *Seoul National Univ. Hospital*; Lee, Yujin *Seoul National Univ. Hospital*; Jeong, Do-Un *Seoul National Univ. Hospital*; Park, Kwang S.* *Seoul National Univ.*
- 16:00-17:30 ThFPoT18.4
A Tracking System for Laboratory Mice to Support Medical Researchers in Behavioral Analysis
 Macri, Simone *Istituto Superiore di Sanità*; Mainetti, Luca *Univ. of Salento*; Patrono, Luigi* *Univ. of Salento*; Pieretti, Stefano *Istituto Superiore di Sanità*; Secco, Andrea *Univ. of Salento*; Sergi, Ilaria *Univ. of Salento*
- 16:00-17:30 ThFPoT18.5
Application of Smart Glasses for Fast and Automatic Color Correction in Health Care
 Ruminski, Jacek *Gdansk Univ. of Technology*; Czuszyński, Krzysztof* *Gdansk Univ. of Technology*
- 16:00-17:30 ThFPoT18.6
A Dynamic Control Algorithm based on Physiological Parameters and Wearable Interfaces for Adaptive Ventricular Assist Devices
 Tortora, Giuseppe* *Scuola Superiore Sant'Anna*; Fontana, Rossella *The BioRobotics Institute of Scuola Superiore Sant'Anna*; Argiolas, Samuele *Scuola Superiore Sant'Anna*; Vatteroni, Monica *Scuola Superiore Sant'Anna*; Dario, Paolo *Scuola Superiore Sant'Anna*; Trivella, Maria G. *Istituto di Fisiologia Clinica-CNR, Pisa*
- 16:00-17:30 ThFPoT18.7
Relative Accuracy of Time and Frequency Domain Features to Quantify Upper Extremity Coordination
 Garrison, Benton *Univ. of Tennessee Knoxville*; Wade, Eric* *Univ. of Tennessee*
- ThFPoT19: 16:00-17:30 Gold Room
10.13 Technology and Services for Assisted-Living (Poster Session)
- 16:00-17:30 ThFPoT19.1
Wearable and Low-Stress Ambulatory Blood Pressure Monitoring Technology for Hypertension Diagnosis
 Altintas, Ersin* *Central Research Laboratories*; Takoh Kimiyasu, Kimiyasu *NEC Corporation*; Ohno Yuji, Yuji *NEC Corporation*; Abe Katsumi, Katsumi *NEC Corporation*; Akagawa Takeshi, Takeshi *NEC Corporation*; Ariyama Tetsuri, Tetsuri *NEC Corporation*; Kubo Masahiro, Masahiro *NEC Corporation*; Tsuchida Kenichiro, Kenichiro *NEC Corporation*; Tochikubo Osamu, Osamu *Yokohama City Univ., School of Medicine*
- 16:00-17:30 ThFPoT19.2
Monitoring Activities of Daily Living using Wireless Acoustic Sensor Networks in Clean and Noisy Conditions
 Vuegen, Lode* *KU Leuven, Dept. of Electrical Engineering, ESAT-ETC-AdvISe*; Van Den Broeck, Bert *KU Leuven, Dept. of Electrical Engineering, ESAT-ETC-AdvISe*; Karsmakers, Peter *KU Leuven, Dept. of Electrical Engineering, ESAT-ETC-AdvISe*; Van hamme, Hugo *KU Leuven, Dept. of Electrical Engineering, ESAT-PSI, Kaste*; Vanrumste, Bart *Katholieke Univ. Leuven*
- 16:00-17:30 ThFPoT19.3
A Mobile Indoor Positioning System based on iBeacon Technology
 Lin, Xin-Yu* *National Taiwan Univ.*; Ho, Te-Wei *National Taiwan Univ.*; Fang, Cheng-Chung *National Taiwan Univ. Hospital*; Yen, Zui-Shen *National Taiwan Univ. Hospital*; Yang, Bey-Jing *National Taiwan Univ. Hospital*; Lai, Feipei *National Taiwan Univ.*
- 16:00-17:30 ThFPoT19.4
Fall Detection Algorithm in Energy Efficient Multistate Sensor System
 Korats, Gundars *CRAN UMR 7039, Univ. de Lorraine*; Hofmanis, Janis* *Ventspils Univ.*; Skorodumovs, Aleksejs *Ventspils International Radio Astronomy Centre (VIRAC)*; Avots, Egils *Ventspils Univ. College*
- 16:00-17:30 ThFPoT19.5
A Novel Ultra-Wideband 80 GHz FMCW Radar System for Contactless Monitoring of Vital Signs
 Wang, Siying* *Fraunhofer Inst. for High Frequency Physics and Radar Tech.*; Pohl, Antje *RWTH Aachen Univ., Philips Chair for Medical Info. Te*; Jaeschke, Timo *Inst. for Integrated Systems, Ruhr-Univ. Bochum*; Czaplik, Michael *Univ. Hospital RWTH Aachen, Dept. of Anaesthesiology*; Koeny, Marcus *Philips Chair of Medical Info. Tech., RWTH Aachen Uni*; Leonhardt, Steffen *RWTH Aachen Univ.*; Pohl, Nils *Fraunhofer Inst. for High Frequency Physics and Radar Tech.*
- 16:00-17:30 ThFPoT19.6
Telemedicine Multimedia Systems to Support Neurodegenerative Diseases Participatory Management
 Borges, Diogo Menezes *Univ. of Porto and INESC TEC*; Cunha, João Paulo Silva* *Univ. of Porto and INESC TEC*
- 16:00-17:30 ThFPoT19.7
SenseMyHeart: A Cloud Service and API for Wearable Heart Monitors
 Pinto Silva, Pedro Manuel *INESC TEC (Instituto de Engenharia de Sistemas e Computadores do*; Cunha, João Paulo Silva* *Univ. of Porto and INESC TEC*
- ThFPoT20: 16:00-17:30 Gold Room
10.14 Smart Home Technology (Poster Session)
- 16:00-17:30 ThFPoT20.1
A Fall Prediction Methodology for Elderly based on a Depth Camera
 Alazrai, Rami* *German Jordanian Univ.*; Mowafi, Yaser *German Jordanian Univ.*; Hamad, Eyad *German Jordanian Univ.*
- 16:00-17:30 ThFPoT20.2
Easy-to-Use, General, and Accurate Multi-Kinect Calibration and Its Application to Gait Monitoring for Fall Prediction
 Staranowicz, Aaron* *Univ. of Texas at Arlington*; Ray, Christopher *Univ. of Texas at Arlington*; Mariottini, Gian-Luca *The Univ. of Texas at Arlington*
- 16:00-17:30 ThFPoT20.3
Person Identification from Gait Analysis with a Depth Camera at Home
 Dubois, Amandine* *Univ. de Fribourg*; Bresciani, Jean-Pierre *Univ. de Fribourg*
- 16:00-17:30 ThFPoT20.4
Characterization of a Multi-User Indoor Positioning System based on Low Cost Depth Vision (Kinect) for Monitoring Human Activity in a Smart Home
 Sevrin, Loïc* *Univ. de Lyon*; Noury, Norbert *Univ. Lyon 1*; Abouchi, Nacer *CPE Lyon*; Jumel, Fabrice *CPE Lyon*; Massot, Bertrand *INSA Lyon*; Saraydaryan, Jacques *CPE Lyon*
- ThFPoT21: 16:00-17:30 Gold Room
12.7 Assistive Technology for the Ageing Population II (Poster Session)
- 16:00-17:30 ThFPoT21.1
Design and Evaluation of a Smartphone Application for Non-Speech Sound Awareness for People with Hearing Loss
 Mielke, Matthias* *Univ. of Siegen*; Brück, Rainer *Univ. of Siegen*

- 16:00-17:30 ThFPoT21.2
Low Vision System for Rapid Near and Far-Field Magnification Switching
 Ambrogi, Nicholas *Massachusetts Inst. of Tech.*; Dias Carlson, Rachel *Massachusetts Inst. of Tech.*; Gantner, Karl *Massachusetts Inst. of Tech.*; Anisha, Gururaj *Massachusetts Inst. of Tech.*; Hanumara, Nevan *Massachusetts Inst. of Tech.*; Narain, Jaya* *Massachusetts Inst. of Tech.*; Winter, Amos *MIT*; Zielske, Iris *Massachusetts Inst. of Tech.*; Satgunam, PremNandhini *LV Prasad Eye Inst.*; Kumar, Deepak *LV Prasad Eye Inst.*; Gothwal, Vijaya *LV Prasad Eye Inst.*
- 16:00-17:30 ThFPoT21.3
Towards Personalized Smart Wheelchairs: Lessons Learned from Discovery Interviews
 Padir, Taskin* *Worcester Polytechnic Institute*
- 16:00-17:30 ThFPoT21.4
User-Centric Design of a Personal Assistance Robot (FRASIER) for Active Aging
 Padir, Taskin* *Worcester Polytechnic Institute*; Skorinko, Jeanine *Worcester Polytechnic Institute*; Dimitrov, Velin *Worcester Polytechnic Institute*
- 16:00-17:30 ThFPoT21.5
Development and Pilot Testing of a Kneeling Ultralight Wheelchair Design
 Mattie, Johanne* *British Columbia Institute of Technology*; Leland, Danny *British Columbia Institute of Technology*; Borisoff, Jaimie F. *British Columbia Institute of Technology*
- 16:00-17:30 ThFPoT21.6
Early Detection of Sit-to-Stand Transitions in a Lower Limb Orthosis
 Bell, Jason *The Univ. of Alabama*; Shen, Xiangrong *Univ. of Alabama*; Sazonov, Edward* *Univ. of Alabama*
- 16:00-17:30 ThFPoT21.7
Promoting Autonomy in a Smart Home Environment with a Smarter Interface
 Brennan, Chris* *Univ. of Ulster*; McCullagh, Paul *Univ. of Ulster*; Galway, Leo *Univ. of Ulster*; Lightbody, Gaye *Univ. of Ulster*
- 16:00-17:30 ThFPoT21.8
Action Tagging in a Multi-User Indoor Environment for Behavioural Analysis Purposes
 Guerra, Claudio* *Dip. di Ingegneria dell'Informazione, Univ. di Parma*; Bianchi, Valentina *Dip. di Ingegneria dell'Informazione, Univ. di Parma*; De Munari, Ilaria *Univ. of Parma*; Ciampolini, Paolo *Univ. of Parma*
- ThFPoT22: 16:00-17:30 Gold Room
12.8 Technologies for Active Aging (Poster Session)
- 16:00-17:30 ThFPoT22.1
Automated Walking Aid Detector based on Indoor Video Recordings
 Puttemans, Steven* *KU Leuven, EAVISE Research Group*; Baldewijns, Greet *KU Leuven campus Geel, AdvISe Technology Lab, Belgium*; Croonenborghs, Tom *KU Leuven campus Geel, AdvISe Technology Lab, Belgium*; Vanrumste, Bart *Katholieke Univ. Leuven*; Goedemé, Toon *KU Leuven, Campus De Nayer, EAVISE Research Group*
- 16:00-17:30 ThFPoT22.2
Automatic Detection of Health Changes using Statistical Process Control Techniques on Measured Transfer Times of Elderly
 Baldewijns, Greet* *KU Leuven campus Geel, AdvISe Tech. Lab, Belgium*; Luca, Stijn *KU Leuven Tech. Campus Geel, AdvISe*; Nagels, William *KU Leuven, Faculty of Engineering Tech.*; Vanrumste, Bart *Katholieke Univ. Leuven*; Croonenborghs, Tom *KU Leuven campus Geel, AdvISe Tech. Lab, Belgium*
- 16:00-17:30 ThFPoT22.3
Physical Activity Classification Meets Daily Life: Review on Existing Methodologies and Open Challenges
 Awais, Muhammad* *Univ. of Bologna*; Mellone, Sabato *Univ. of Bologna*; Chiari, Lorenzo *Univ. of Bologna*
- 16:00-17:30 ThFPoT22.4
Influence of Age and Gender on Sensor-Based Functional Measures: A Factor Analysis Approach.
 Coni, Alice* *Univ. of Bologna, Italy*; Mellone, Sabato *Univ. of Bologna*; Colpo, Marco *Laboratory of Clinical Epidemiology, Azienda Sanitaria Firenze*; Bandinelli, Stefania *Laboratory of Clinical Epidemiology, Azienda Sanitaria Firenze*; Chiari, Lorenzo *Univ. of Bologna*
- 16:00-17:30 ThFPoT22.5
ECG Synthesis from Separate Wearable Bipolar Electrodes
 Farotto, Dario *Technical Univ. of Eindhoven*; Atallah, Louis* *Philips Research*; van der Heijden, Patrick *Holst-IMEC*; Grieten, Lars *Holst-IMEC*
- 16:00-17:30 ThFPoT22.6
Mining Human Behavior for Health Promotion
 Banos, Oresti* *Kyung Hee Univ.*; Bang, Jaehun *Kyung Hee Univ.*; Hur, Taeho *Kyung Hee Univ.*; Siddiqi, Muhammad Hameed *Kyung Hee Univ.*; Thien, Huynh-The *Kyung Hee Univ.*; Vui, Le-Ba *Kyung Hee Univ.*; Khan, Wajahat Ali *Kyung Hee Univ.*; Ali, Taqdir *Kyung Hee Univ.*; South Korea; Villalonga, Claudia *Research Center for Information and Communications Technologies*; Lee, Sungyoung *Kyung Hee Univ.*
- 16:00-17:30 ThFPoT22.7
Modeling of Human Movement Monitoring using Bluetooth Low Energy Technology
 Mokhtari, Ghassem* *CSIRO*; Zhang, Qing *CSIRO ICT Centre*; Karunanithi, Mohanraj *CSIRO Digital Productivity Flagship*
- 16:00-17:30 ThFPoT22.8
Human Motion Energy Harvesting using a Piezoelectric MFC Patch
 Bassani, Giulia* *Scuola Superiore Sant'Anna*; Filippeschi, Alessandro *Scuola Superiore S. Anna, Pisa, Italy*; Ruffaldi, Emanuele *Scuola Superiore S. Anna, Pisa, Italy*
- 16:00-17:30 ThFPoT22.9
A Random Forest-Based Ensemble Method for Activity Recognition
 Feng, Zengtao *Southeast Univ.*; Mo, Lingfei* *Univ. of Southeast, China*; Li, Meng *Southeast Univ.*
- 16:00-17:30 ThFPoT22.10
Validation of an Optimized Algorithm to use Kinect in a Non-Structured Environment for Sit-to-Stand Analysis
 Cippitelli, Enea* *Univ. Politecnica delle Marche*; Gasparini, Samuele *Univ. Politecnica delle Marche*; Spinsante, Susanna *Univ. Politecnica delle Marche*; Gambi, Ennio *Univ. Politecnica delle Marche*; Verdini, Federica *Univ. Politecnica delle Marche*; Burattini, Laura *Univ. Politecnica delle Marche*; Di Nardo, Francesco *Polytechnic Univ. of Marche*; Fioretti, Sandro *Univ. Politecnica delle Marche*
- ThFPoT23: 16:00-17:30 Gold Room
9.16 Brain Monitoring Technologies (Poster Session)
- 16:00-17:30 ThFPoT23.1
Affordable Low Complexity Heart/Brain Monitoring Methodology for Remote Health Care
 Vemishetty, Naresh *IIT Hyderabad*; Jadhav, Pranit *IIT Hyderabad*; Adapa, Bhagyaraja *Indian Institute of Technology Hyderabad*; Acharyya, Amit* *Indian Institute of Technology Hyderabad*; P, Rajalakshmi *Indian Institute of Technology Hyderabad*; Naik, Ganesh R *Univ. of Technology Sydney*
- 16:00-17:30 ThFPoT23.2
Epileptic Seizure Detection using Wrist-Worn Biosensors
 Cogan, Diana *The Univ. of Texas at Dallas*; Nourani, Mehrdad* *Univ. of Texas at Dallas*; Harvey, Jay *Texas Epilepsy Group*; Nagaraddi, Venkatesh *Texas Epilepsy Group*
- 16:00-17:30 ThFPoT23.3
Visualizing the Brain on a Mixed Reality Smartphone Application
 Soeiro, José *BioISI – Biosystems & Integrative Sciences Institute, Univ.*; Cláudio, Ana Paula* *BioISI – Biosystems & Integrative Sciences Institute, Univ.*; Carmo, Maria Beatriz *BioISI – Biosystems & Integrative Sciences Institute, Univ.*; Ferreira, Hugo *Institute of Biophysics and Biomedical Engineering*

16:00-17:30 ThFPoT23.4
Transmission of Wireless Neural Signals through a 0.18um CMOS Low-Power Amplifier
 Gazziro, M.* *Univ. Federal of ABC; Braga, C.F. UFABC; Moreira, D. Univ. of Sao Paulo; de Carvalho, A. Univ. of Sao Paulo; Rodrigues Jr, J.F. Univ. of Sao Paulo; Navarro, J. Univ. of São Paulo, School of Engineering of São Carlos, Et; Mateus, J. Chipus Microelectronics; Pasti Mioni, D. Chipus Microelectronics; Pilon Pessatti, M. Chipus Microelectronics; Dal Fabbro, P. Augusto Chipus Microelectronics; Frewin, C. Univ. of South Florida; Sadow, S. Univ. of South Florida*

18:15-18:30 ThGT1.4
Estimation of Loop Gain and Arousal Threshold from Spontaneous Breathing Patterns in Obstructive Sleep Apnea
 Terrill, Philip Ian* *Univ. of Queensland; Edwards, Bradley Allan Brigham and Women's Hospital and Harvard Medical School; Wellman, David Andrew Harvard Medical School; Nemati, Shamim Harvard School of Engineering and Applied Sciences; Owens, Robert Harvard Medical School; Butler, James P Brigham and Women's Hospital and Harvard Medical School; Malhotra, Atul Brigham and Women's Hospital and Harvard Medical School; Sands, Scott Aaron Brigham and Women's Hospital and Harvard Medical School*

ThFPoT24: 16:00-17:30 Gold Room
9.17 Simulation and Training (Poster Session)

ThGT2: 17:30-19:00 Brown 2
9.7 Physiological Monitoring Devices (Oral Session)
Co-Chair: Lago, Paolo *Fondazione IRCCS Policlinico S. Matteo*

16:00-17:30 ThFPoT24.1
New Training Methods based on Mixed Reality for Interventional Ultrasound: Design and Validation
 Francesconi, Martina* *Univ. of Pisa; Freschi, Cinzia Univ. of Pisa; Sinceri, Sara EndoCAS - Univ. of Pisa; Carbone, Marina EndoCAS - Univ. of Pisa; Cappelli, Carla Azienda Ospedaliero-Univ. Pisana; Morelli, Luca Azienda Ospedaliero-Univ. Pisana; Ferrari, Vincenzo Univ. di Pisa; Ferrari, Mauro Univ. of Pisa*

17:30-17:45 ThGT2.1
A Chair for Cuffless Real-Time Estimation of Systolic Blood Pressure based on Pulse Transit Time
 Tang, Zunyi* *Osaka Electro-Communication Univ.; Sekine, Masaki Osaka Electro-Communication Univ.; Tamura, Toshiyo Osaka Electro-Communication Univ.; Yoshida, Masaki Osaka Electro-Communication Univ.; Chen, Wenxi Univ. of Aizu*

16:00-17:30 ThFPoT24.2
Basic Endovascular Skills Trainer: A Surgical Simulator for the Training of Novice Practitioners of Endovascular Procedures
 Sinceri, Sara* *EndoCAS - Univ. of Pisa; Carbone, Marina EndoCAS - Univ. of Pisa; Marconi, Michele Univ. of Pisa; Moglia, Andrea EndoCAS - Univ. of Pisa; Ferrari, Mauro Univ. of Pisa; Ferrari, Vincenzo Univ. di Pisa*

17:45-18:00 ThGT2.2
Simulation Study on the Effect of Tissue Geometries to Fluence Composition for Non-Invasive Fetal Pulse Oximetry
 Böttrich, Marcel* *Technische Univ. Ilmenau; Ley, Sebastian Technische Univ. Ilmenau; Husar, Peter Ilmenau Univ. of Tech.*

16:00-17:30 ThFPoT24.3
Development of Trabecular Bone Surrogates for Kyphoplasty-Balloon Dilatation Training
 Hollensteiner, Marianne* *Upper Austria Univ. of Applied Sciences; Samrykit, Markus Univ. of Applied Sciences Upper Austria; Hess, Michael Upper Austria Univ. of Applied Sciences; Fuerst, David Upper Austria Univ. of Applied Sciences; Schrempf, Andreas Upper Austria Univ. of Applied Sciences*

18:00-18:15 ThGT2.3
Intraoperative Monitoring of Intestinal Viability: Evaluation of a New Combined Sensor
 McGuinness Abdollahi, Zahra* *City Univ. London; Taha, Mohamed The Royal London Hospital, Bart's Health NHS Trust; Ramsanahie, Anthony The Royal London Hospital, Bart's Health NHS Trust; Ahmed, Shafi The Royal London Hospital, Bart's Health NHS Trust; Kyriacou, Panayiotis City Univ. London; Phillips, Justin City Univ. London*

16:00-17:30 ThFPoT24.4
Assessment Parameters for a Novel Simulator in Minimally Invasive Spine Surgery
 Fuerst, David* *Upper Austria Univ. of Applied Sciences; Hollensteiner, Marianne Upper Austria Univ. of Applied Sciences; Schrempf, Andreas Upper Austria Univ. of Applied Sciences*

18:15-18:30 ThGT2.4
Impedance Sensing Device for Monitoring Ulcer Healing in Human Patients
 Liao, Amy* *UC Berkeley; Lin, Monica UC Berkeley / UC San Francisco; Ritz, Lauren UCSF; Swisher, Sarah UC Berkeley; Ni, David UC Berkeley; Mann, Kaylee Univ. of California Berkeley; Roy, Shuvo Univ. of California at San Francisco; Harrison, Michael Univ. of California at San Francisco; Arias, Ana UC Berkeley; Subramanian, Vivek UC Berkeley; Young, David UCSF; Maharbiz, Michel Univ. of California, Berkeley; Khan, Yasser UC Berkeley*

16:00-17:30 ThFPoT24.5
Comparison of Oral Surgery Task Performance in a Virtual Reality Surgical Simulator and an Animal Model using Objective Measures
 Ioannou, Ioanna* *Univ. of Melbourne; Kazmierczak, Ed The Univ. of Melbourne; Stern, Linda Univ. of Melbourne*

18:30-18:45 ThGT2.5
Detection of Levodopa Induced Dyskinesia in Parkinson's Disease Patients based on Activity Classification
 Jalloul, Nahed* *LTSI Univ. de rennes 1; Porée, Fabienne Univ. de Rennes 1; viardot, geoffrey FORENAP; L'Hostis, Philippe Biotrial Core Lab; Carrault, Guy Univ. de Rennes 1*

ThGT1: 17:30-19:00 Brown 1
5.M7 Systems Physiology and Signal Analysis in Natural Sleep and Sleep Disorders III (Minisymposium)
Chair: Khoo, Michael *University of Southern California*
Co-Chair: Penzel, Thomas *Charite University Hospital*

18:45-19:00 ThGT2.6
Impedance Spectroscopy to Monitor Fracture Healing
 Lin, Monica* *UC Berkeley / UC San Francisco; Herfat, Safa Univ. of California, San Francisco; Bahney, Chelsea Univ. of California, San Francisco; Marmor, Meir Univ. of California, San Francisco; Maharbiz, Michel Univ. of California, Berkeley*

17:30-17:45 ThGT1.1
Heart Rate Analysis in Fetal and Infant Sleep
 Signorini, Maria G.* *Politecnico di Milano; Lucchini, Maristella Politecnico di Milano; Magenes, Giovanni Univ. of Pavia*

ThGT3: 17:30-19:00 Brown 3
6.16 Neural Signal Processing II (Oral Session)
Chair: Bertrand, Alexander *KU Leuven, University of Leuven*
Co-Chair: Ravazzani, Paolo *CNR*

17:45-18:00 ThGT1.2
Cardiorespiratory Coupling in Sleep
 Penzel, Thomas* *Charite Univ. Hospital; Glos, Martin Charite-Univ. Medizin Berlin; Schoebel, Christoph Charite Univ. Medizin Berlin; Garcia, Carmen Charité Univ. Hospital Berlin, Sleep Medicine Center; Fietze, Ingo Charite-Univ. Medizin Berlin*

18:00-18:15 ThGT1.3
Modeling and Estimation of Ventilatory Control Instability in Pediatric Sleep-Related Breathing Disorders
 Nava-Guerra, Leonardo* *Univ. of Southern California; Khoo, Michael Univ. of Southern California*

17:30-17:45 ThGT3.1
EC-PC Spike Detection for High Performance Brain-Computer Interface
 Tam, Wing Kin* *National Univ. of Singapore; So, Rosa Institute for Infocomm Research; Guan, Cuntai Institute for Infocomm Research; Yang, Zhi National Univ. of Singapore*

August 27 Thursday

- 17:45-18:00 ThGT3.2
Improving Neural Decoding in the Central Auditory System using Bio-Inspired Spectro-Temporal Representations and a Generalized Bilinear Model
 Siahpoush, Shadi* *Univ. de sherbrooke*; Erfani, Yousof *Univ. de sherbrooke*; Rode, Thilo *Hörzentrum Hannover GmbH*; Lim, Hubert *Univ. of Minnesota*; Rouat, Jean *Univ. de sherbrooke*; Plourde, Eric *Univ. de Sherbrooke*
- 18:00-18:15 ThGT3.3
FPGA Implementation of Principal Component Regression (PCR) for Real-Time Differentiation of Dopamine from Interferents
 Bozorgzadeh, Bardia *Case Western Reserve Univ.*; Covey, Daniel *Illinois State Univ.*; Garris, Paul *Illinois State Univ.*; Mohseni, Pedram* *Case Western Reserve Univ.*
- 18:15-18:30 ThGT3.4
Comparison of Speech Envelope Extraction Methods for EEG-Based Auditory Attention Detection in a Cocktail Party Scenario
 Biesmans, Wouter* *KU Leuven*; Vanthornhout, Jonas *KU Leuven, Univ. of Leuven*; Wouters, Jan *KU Leuven, Univ. of Leuven*; Moonen, Marc *KU Leuven, Univ. of Leuven*; Francart, Tom *KU Leuven, Univ. of Leuven*; Bertrand, Alexander *KU Leuven, Univ. of Leuven*
- 18:30-18:45 ThGT3.5
Probing Meaningfulness of Oscillatory EEG Components with Bootstrapping, Label Noise and Reduced Training Sets
 Castaño-Candamil, Juan Sebastián *Univ. of Freiburg*; Meinel, Andreas *Univ. of Freiburg*; Dähne, Sven *Technical Univ. of Berlin*; Tangermann, Michael* *Univ. of Freiburg*
- 18:45-19:00 ThGT3.6
Research on Multi-Dimensional N-Back Task Induced EEG Variations
 Chen, Runge *Tianjin Univ.*; Wang, Xiaolu *Tianjin Univ.*; zhang, lu *Tianjin Univ.*; Yi, Weibo *Tianjin Univ.*; Ke, Yufeng *Tianjin Univ.*; Qi, Hongzhi *Tianjin Univ.*; He, Feng *Tianjin Univ.*; Zhao, Xin *Tianjin Univ.*; Wang, Xuemin *Tianjin Univ.*; Ming, Dong *Tianjin Univ.*; Zhou, Peng* *Tianjin Univ.*
- ThGT4: 17:30-19:00 Amber 1
1.21 Signal Processing in Physiological Systems VIII: Movement (Oral Session)
Chair: Della Croce, Ugo *University of Sassari*
- 17:30-17:45 ThGT4.1
Automatic Task Analysis based on Head Movement
 Makepeace, Robert William *Univ. of New South Wales*; Epps, Julien* *The Univ. of New South Wales*
- 17:45-18:00 ThGT4.2
Timed Up-and-Go Phase Segmentation in Parkinson's Disease Patients using Unobtrusive Inertial Sensors
 Reinfelder, Samuel* *Friedrich-Alexander-Univ. Erlangen-Nürnberg*; Hauer, Roland *Friedrich-Alexander-Univ. Erlangen-Nürnberg*; Barth, Jens *ASTRUM IT GmbH*; Klucken, Jochen *Univ. Hospital Erlangen*; Eskofier, Bjoern M *Friedrich-Alexander-Univ. Erlangen-Nürnberg*
- 18:00-18:15 ThGT4.3
Estimating In-Home Walking Speed Distributions for Unobtrusive Detection of Mild Cognitive Impairment in Older Adults
 Akl, Ahmad* *Univ. of Toronto*; Mihailidis, Alex *Univ. of Toronto*
- 18:15-18:30 ThGT4.4
Hidden Markov Model-Based Strategy for Gait Segmentation using Inertial Sensors: Application to Elderly, Hemiparetic Patients and Huntington's Disease Patients
 Mannini, Andrea* *Scuola Superiore Sant'Anna*; Trojaniello, Diana *Univ. of Sassari*; Della Croce, Ugo *Univ. of Sassari*; Sabatini, Angelo Maria *Scuola Superiore Sant'Anna*
- 18:30-18:45 ThGT4.5
Temporal and Kinematic Variables for Real-World Falls Harvested from Lumbar Sensors in the Elderly Population
 Bourke, Alan* *Univ. of Limerick*; Klenk, Jochen *Dept. of Clinical Gerontology, Robert Bosch Hospital, Stutt*; Schwickert, Lars *Dept. of Clinical Gerontology, Robert Bosch Hospital, Stutt*; Aminian, Kamiar *Ecole Polytechnique Federale*; Ihlen, Espen A F *Dept. of Neuroscience, Faculty of Medicine, Norwegian Univ.*; Helbostad, Jorunn L *Dept. of Neuroscience, Faculty of Medicine, Norwegian Univ.*; Chiari, Lorenzo *Univ. of Bologna*; Becker, Clemens *Dept. of Clinical Gerontology, Robert Bosch Hospital, Stutt*
- 18:45-19:00 ThGT4.6
Frequency-Based Features for Early Cerebral Palsy Prediction
 Rahmati, Hodjat* *NTNU, Trondheim, Norway*; Martens, Harald *Dept. of Engineering Cybernetics, NTNU*; Aamo, Ole Morten *Dept. of Engineering Cybernetics, NTNU, Trondheim, Norway*; Stavadahl, Øyvind *Norwegian Univ. of Science and Technology*; Støen, Ragnhild *Dept. of Pediatrics, St. Olavs Univ. Hospital*; Adde, Lars *Clinic for Clinical Services, St. Olavs Univ. Hospital, Tro*
- ThGT5: 17:30-19:00 Amber 2
1.22 Signal Processing in Physiological Systems V: Arrhythmias Detection (Oral Session)
Co-Chair: Owis, Mohamed *Cairo University*
- 17:30-17:45 ThGT5.1
Arrhythmia Detection using Amplitude Difference Features based on Random Forest
 Park, Juyoung* *Hanyang Univ.*; Seunghan, Lee *Hanyang Univ.*; Kang, Kyungtae *Hanyang Univ.*
- 17:45-18:00 ThGT5.2
Arrhythmia Classification based on Novel Distance Series Transform of Phase Space Trajectories
 Sayed, Khaled* *Cairo Univ.*; Khalaf, Aya *Cairo Univ.*; Kadam, Yasser M. *Cairo Univ.*
- 18:00-18:15 ThGT5.3
Image Features of Spectral Correlation Function for Arrhythmia Classification
 Khalaf, Aya* *Cairo Univ.*; Owis, Mohamed *Cairo Univ.*; Yassine, Inas *Cairo Univ.*
- 18:15-18:30 ThGT5.4
Automatic Cardiac Arrhythmia Detection and Classification using Vectorcardiograms and Complex Networks
 Queiroz, V.A.P. *Univ. Federal de Ouro Preto*; Luz, Eduardo* *Univ. Federal de Ouro Preto*; Moreira, Gladston Juliano Prates *Univ. Federal de Ouro Preto*; Guarda, Álvaro *Univ. Federal de Ouro Preto*; Menotti, David *Univ. Federal de Ouro Preto*
- 18:30-18:45 ThGT5.5
Distribution Entropy (DistEn): A Complexity Measure to Detect Arrhythmia from Short Length RR Interval Time Series
 Karmakar, Chandan* *Deakin Univ.*; Udhayakumar, Radhagayathri *Univ. of Melbourne*; Palaniswami, Marimuthu *The Univ. of Melbourne*
- 18:45-19:00 ThGT5.6
Discriminative Sparse Coding of ECG during Ventricular Arrhythmias using a LC-KSVD Approach
 Kalaji, Iman *Ryerson Univ.*; Balasundaram, Krishnanand* *Ryerson Univ.*; Umopathy, Karthikeyan *Ryerson Univ.*
- ThGT6: 17:30-19:00 Amber 3
2.16 Imaging in Radiation Therapy (Invited Session)
Chair: Rizzo, Giovanna *National Research Council (CNR)*
Co-Chair: Acosta, Oscar *Univ. of Rennes 1*
- 17:30-17:45 ThGT6.1
Roles of Deformable Image Registration in Adaptive RT: From Contour Propagation to Dose Monitoring
 Simon, Antoine* *Univ. of Rennes*; Nassef, Mohamed *Univ. of Rennes 1*; Rigaud, Bastien *Univ. of Rennes 1*; Cazoulat, Guillaume *Univ. of Rennes 1*; Castelli, Joël *Univ. of Rennes 1*; Lafond, Caroline *Univ. of Rennes 1*; Acosta, Oscar *Univ. of Rennes 1*; Haignon, Pascal *Univ. of Rennes 1*; De Crevoisier, Renaud *INSERM, U1099, Rennes, F-35000, France - Univ. de Rennes 1*,

- 17:45-18:00 ThGT6.2
Texture Analysis to Assess Structural Modifications Induced by Radiotherapy
 Scalco, Elisa* *National Research Council*; Moriconi, Stefano *National Research Council*; Rizzo, Giovanna *National Research Council (CNR)*
- 18:00-18:15 ThGT6.3
An Innovative Multimodal/Multispectral Image Registration Method for Medical Images based on the Expectation-Maximization Algorithm
 Arce-Santana, Edgar Roman* *Facultad de Ciencias*; Campos-Delgado, Daniel U. *Univ. Autonoma de San Luis Potosi*; Mejia-Rodriguez, Aldo Rodrigo *Univ. Autonoma de San Luis Potosi*; Reducindo, Isnardo *Univ. Autonoma de San Luis Potosi*
- 18:15-18:30 ThGT6.4
Challenges and Opportunities in Image Guided Particle Therapy
 Riboldi, Marco* *Politecnico di Milano*; Baroni, Guido *Politecnico di Milano*
- 18:30-18:45 ThGT6.5
Recent Advancements in Toxicity Prediction Following Prostate Cancer Radiotherapy
 Ospina, Juan David* *LTSI - Univ. of Rennes 1*; Fargeas, Auréline *LTSI - Univ. of Rennes 1*; Drean, Gael *LTSI - Univ. of Rennes 1*; Simon, Antoine *Univ. of Rennes*; Acosta, Oscar *Univ. of Rennes 1*; De Crevoisier, Renaud *INSERM, U1099, Rennes, F-35000, France - Univ. de Rennes 1*,
- 18:45-19:00 ThGT6.6
Analysis of Serial CT Images for Studying the RT Effects in Head-Neck Cancer Patients
 Belli, Maria Luisa* *Scientific Institute San Raffaele*; Broggi, Sara *Scientific Institute San Raffaele*; Scalco, Elisa *National Research Council*; Cattaneo, Giovanni Mauro *Scientific Institute San Raffaele*; Dell'Oca, Italo *Scientific Institute San Raffaele*; Logghe, Gerlinde *Ghent Univ., Ghent, Belgium and Free Univ. of Brussels*; Moriconi, Stefano *National Research Council*; Sanguineti, Giuseppe *Dept. of Radiation Oncology, Regina Elena National Cancer I; Valentini, Vincenzo Univ. Cattolica del Sacro Cuore*; Di Muzio, Nadia *Scientific Institute San Raffaele, Milano, Italy*; Fiorino, Claudio *Scientific Institute San Raffaele*; Calandrino, Riccardo *Scientific Institute San Raffaele*
- ThGT7: 17:30-19:00 Amber 4
2.17 Retinal and Ophthalmic Imaging I (Oral Session)
 Chair: Ruggieri, Alfredo *University of Padua*
 Co-Chair: Chen, Xiangyu *Institute for Infocomm Research, A*STAR*
- 17:30-17:45 ThGT7.1
Automated Retinal Vessel Recognition and Measurements on Large Datasets
 Welikala, Roshan A *Kingston Univ.*; Fraz, Muhammad M *National Univ. of Sciences and Technology, Islamabad*; Hayat, Shabina *Univ. of Cambridge*; Rudnicka, Alicja R *St. George's, Univ. of London*; Foster, Paul J *Univ. College London*; Whincup, Peter H *St. George's, Univ. of London*; Owen, Chris G *St. George's, Univ. of London*; Strachan, David P *St. George's, Univ. of London*; Barman, Sarah A* *Kingston Univ.*
- 17:45-18:00 ThGT7.2
Improving the Performance of an Ensemble-Based Exudate Detection System using Stochastic Parameter Optimization
 Toth, Janos* *Univ. of Debrecen, Faculty of Informatics*; Toman, Henrietta *Univ. of Debrecen*; Hajdu, Andras *Univ. of Debrecen*
- 18:00-18:15 ThGT7.3
Retinal Image Registration for Eye Movement Estimation
 Kolar, Radim* *Brno Univ. of Technology*; Tornow, Ralf-Peter *Univ. of Erlangen*; Odstrcilik, Jan *Brno Univ. of Technology*
- 18:15-18:30 ThGT7.4
Automatic Gunn and Salus Sign Quantification in Retinal Images
 Wigdahl, Jeffrey* *Univ. of Padova*; Guimarães, Pedro *Univ. of Padova*; Leontidis, Georgios *Univ. of Lincoln*; Triantafyllou, Areti *3rd Internal Medicine clinic of Papageorgiou Hospital, Thessalon*; Ruggieri, Alfredo *Univ. of Padua*
- 18:30-18:45 ThGT7.5
Evaluation of Geometric Features as Biomarkers of Diabetic Retinopathy for Characterizing the Retinal Vascular Changes during the Progression of Diabetes
 Leontidis, Georgios* *Univ. of Lincoln*; Al-Diri, Bashir *The Univ. of Lincoln*; Wigdahl, Jeffrey *Univ. of Padova*; Hunter, Andrew *Univ. of Lincoln*
- 18:45-19:00 ThGT7.6
Multiple Ocular Diseases Detection based on Joint Sparse Multi-Task Learning
 Chen, Xiangyu* *Institute for Infocomm Research, A*STAR*; Xu, Yanwu *Institute for Infocomm Research*; Yin, Fengshou *Institute for Infocomm Research*; Zhang, Zhuo *A*STAR*; Wong, Damon *Institute for Infocomm Research*; Wong, Tien Yin *National Univ. of Singapore*; Liu, Jiang *Institute for Infocomm Research, A STAR*
- ThGT8: 17:30-19:00 Amber 5
8.8 Surgical Robotics I (Oral Session)
 Chair: Ferrigno, Giancarlo *Politecnico di Milano*
- 17:30-17:45 ThGT8.1
A Surgical Parallel Continuum Manipulator with a Cable-Driven Grasper
 Orekhov, Andrew *Univ. of Tennessee*; Bryson, Caroline* *Univ. of Tennessee Knoxville*; Till, John *Univ. of Tennessee, Knoxville*; Chung, Scotty *Univ. of Tennessee*; Rucker, Daniel *Caleb Univ. of Tennessee*
- 17:45-18:00 ThGT8.2
Estimating the Configuration of a Continuum Dexterous Manipulator with Variable Curvature Bending using Partial Shape-Sensing
 Murphy, Ryan J.* *Johns Hopkins Univ. Applied Physics Laboratory*; Armand, Mehran *Johns Hopkins Univ. Applied Physics Laboratory*
- 18:00-18:15 ThGT8.3
Markerless Surgical Robotic System for Intracerebral Hemorrhage Surgery
 Shin, Sangkyun *Korea Institute of Science and Tech.*; Cho, Hunchul *Korea Institute of Science and Tech.*; Yoon, Siyeop *Univ. of Science and Tech.*; Park, Kyusic *Korea Institute of Science and Tech.*; Kim, Youngjun *KIST*; Park, Sehyung *Korea Institute of Science and Tech.*; Kim, Laehyun *Korea Institute of Science and Tech.*; Lee, Deukhee* *Korea Institute of Science and Tech.*
- 18:15-18:30 ThGT8.4
Recognition of User's Activity for Adaptive Cooperative Assistance in Robotic Surgery
 Nessi, Federico *Politecnico di Milano*; Beretta, Elisa *Politecnico di Milano*; Ferrigno, Giancarlo* *Politecnico di Milano*; De Momi, Elena *Politecnico di Milano*
- 18:30-18:45 ThGT8.5
Biometry-Based Concentric Tubes Robot for Vitreoretinal Surgery
 Lin, Fang-Yu *Univ. College London*; Bergeles, Christos* *Imperial College London*; Yang, Guang-Zhong *Imperial College London*
- 18:45-19:00 ThGT8.6
Development of the SAIT Single-Port Surgical Access Robot -Slave Arm based on RCM Mechanism -
 Roh, Se-gon* *Samsung Advanced Institute of Technology, Samsung Electronics Co*
- ThGT9: 17:30-19:00 Amber 6
8.9 Mechanics of Locomotion and Balance I (Oral Session)
 Chair: Micera, Silvestro *Scuola Superiore Sant'Anna*
 Co-Chair: Pedotti, Antonio *Politecnico di Milano*
- 17:30-17:45 ThGT9.1
Effects of Aging and Perturbation Intensities on Temporal Parameters during Slipping-Like Perturbations
 Tropea, Peppino* *Scuola Superiore Sant'Anna*; Martelli, Dario *The BioRobotics Institute, Scuola Superiore Sant'Anna, Pisa(I)*; Aprigliano, Federica *The BioRobotics Institute of Scuola Superiore Sant'Anna, Pisa*; Micera, Silvestro *Scuola Superiore Sant'Anna, Pisa*; Monaco, Vito *Scuola Superiore Sant'Anna, Pisa*

- 17:45-18:00 ThGT9.2
Effects of Slipping-Like Perturbation Intensity on the Dynamical Stability
 Aprigliano, Federica* *The BioRobotics Institute of Scuola Superiore Sant'Anna, Pisa*; Martelli, Dario *The BioRobotics Institute, Scuola Superiore Sant'Anna, Pisa(I)*; Tropea, Peppino *Scuola Superiore Sant'Anna*; Micera, Silvestro *Scuola Superiore Sant'Anna*; Monaco, Vito *Scuola Superiore Sant'Anna, Pisa*
- 18:00-18:15 ThGT9.3
Walking on Uneven Terrain with a Powered Ankle Prosthesis: A Preliminary Assessment
 Shultz, Amanda* *Vanderbilt Univ.*; Lawson, Brian *Vanderbilt Univ.*; Goldfarb, Michael *Vanderbilt Univ.*
- 18:15-18:30 ThGT9.4
Local Dynamic Stability of the Trunk Segments and Lower Extremity Joints during Backward Walking
 Wu, Yu *Shanghai Jiao Tong Univ.*; Xiao, Fei *Ninth People's Hospital, Shanghai Jiao Tong Univ. School of*; Gu, Dong-Yun* *Ninth People's Hospital, Shanghai Jiao Tong Univ. School of*
- 18:30-18:45 ThGT9.5
Metabolics of Stair Ascent with a Powered Transfemoral Prosthesis
 Ledoux, Elissa Danielle* *Vanderbilt Univ.*; Lawson, Brian *Vanderbilt Univ.*; Shultz, Amanda *Vanderbilt Univ.*; Bartlett, Harrison Logan *Vanderbilt Univ.*; Goldfarb, Michael *Vanderbilt Univ.*
- 18:45-19:00 ThGT9.6
Measuring Body Sway of Bipedally Standing Rat and Quantitative Evaluation of Its Postural Control
 Sato, Yota *The Univ. of Electro-Communications*; Funato, Tetsuro* *The Univ. of Electro-Communications*; Yanagihara, Dai *The Univ. of Tokyo*; Sato, Yamato *Teikyo Heisei Univ.*; Aoi, Shinya *Kyoto Univ.*; Fujiki, Soichiro *Kyoto Univ.*; Nakano, Kazushi *The Univ. of Electro-Communications*; Tsuchiya, Kazuo *Kyoto Univ.*
- ThGT10: 17:30-19:00 Amber 7
5.5 Advanced Engineering Methods for Respiratory Medicine (Invited Session)
 Chair: Chbat, Nicolas W. *Philips Research North America*
 Co-Chair: Das, Anup *University of Warwick*
- 17:30-17:45 ThGT10.1
Automated Logging of Inspiratory and Expiratory Non-Synchronized Breathing (ALIEN) for Mechanical Ventilation
 Chiew, Yeong Shiong *Univ. of Canterbury*; Pretty, Christopher G.* *Univ. of Canterbury*; Beatson, Alexander *Univ. of Canterbury*; Glassenbury, Daniel *Univ. of Canterbury*; Major, Vincent *Univ. of Canterbury*; Corbett, Simon *Univ. of Canterbury*; Redmond, Daniel *Univ. of Canterbury*; Szlavecz, Akos *Budapest Univ. of Technology and Economics*; Shaw, Geoffrey M *Christchurch Hospital*; Chase, J. Geoffrey *Univ. of Canterbury*
- 17:45-18:00 ThGT10.2
Development of an Integrated Model of Cardiovascular and Pulmonary Physiology for the Evaluation of Mechanical Ventilation Strategies
 Das, Anup *Univ. of Warwick*; Haque, Mainul *Univ. of Nottingham*; Chikhani, Marc *Univ. of Nottingham*; Wang, Wenfei *Univ. of Warwick*; Ali, Tayyba *Univ. of Nottingham*; Cole, Oana *Univ. of Nottingham*; Hardman, Jonathan G. *Univ. of Nottingham*; Bates, Declan Gerard* *Univ. of Warwick*
- 18:00-18:15 ThGT10.3
Steps Towards 3D Electrical Impedance Tomography
 Schullcke, Benjamin* *Furtwangen Univ.*; Gong, Bo *Furtwangen Univ.*; Moeller, Knut *Furtwangen Univ.*
- 18:15-18:30 ThGT10.4
Constrained Optimization for Noninvasive Estimation of Work of Breathing
 Vicario, Francesco* *Philips Research North America*; Albanese, Antonio *Philips Research North America*; Wang, Dong *Philips Research North America*; Karamolegkos, Nikolaos *Columbia Univ.*; Chbat, Nicolas W. *Philips Research North America*
- 18:30-18:45 ThGT10.5
Model-Based Advice for Mechanical Ventilation: From Research (INVENT) to Product (Beacon Caresystem)
 Rees, Stephen Edward* *Aalborg Univ.*; Karbing, Dan *Stieper Aalborg Univ.*
- 18:45-19:00 ThGT10.6
Creating Clinical Decision Support Systems for Respiratory Medicine
 Tams, Carl* *Convergent Engineering*; Euliano, Neil *Convergent Engineering*
- ThGT11: 17:30-19:00 Amber 8
6.17 Engineering Approaches to Understanding Orofacial Functions (Invited Session)
 Chair: Takahashi, Kazutaka *University of Chicago*
 Co-Chair: Slutzky, Marc *Northwestern University*
- 17:30-17:45 ThGT11.1
Decoding of Articulatory Gestures during Word Production using Speech Motor and Premotor Cortical Activity
 Mugler, Emily *Northwestern Univ.*; Goldrick, Matthew *Northwestern Univ.*; Rosenow, Joshua *Northwestern Univ.*; Tate, Matthew *Northwestern Univ.*; Slutzky, Marc* *Northwestern Univ.*
- 17:45-18:00 ThGT11.2
Recurrence Network Analysis of Multiple Local Field Potential Bands from the Orofacial Portion of Primary Motor Cortex
 Puthanmadam Subramaniam, Narayan *Tampere Univ. of Technology*; Hyttinen, Jari* *Tampere Univ. of Technology*; Hatsopoulos, Nicholas *Univ. of Chicago*; Ross, Callum *Univ. of Chicago*; Takahashi, Kazutaka *Univ. of Chicago*
- 18:00-18:15 ThGT11.3
Semiautomatic Marker Tracking of Tongue Positions Captured by Videofluoroscopy during Primate Feeding
 Best, Matthew *Univ. of Chicago*; Nakamura, Yuki *Univ. of Chicago*; Kijak, Nicoletta *Univ. of Chicago*; Allen, Mitchell *Univ. of Missouri School of Medicine*; Lever, Teresa *Univ. of Missouri*; Hatsopoulos, Nicholas *Univ. of Chicago*; Ross, Callum *Univ. of Chicago*; Takahashi, Kazutaka* *Univ. of Chicago*
- 18:15-18:30 ThGT11.4
Tracking of the Speech Envelope by Neural Activity during Speech Production is Not Limited to Broca's Area in the Dominant Frontal Lobe
 Magrassi, Lorenzo* *Fondazione IRCCS Policlinico S. Matteo*; Cabrini, Alessandro *Dept. of Electrical, Computer, and Biomedical Engineering, Univ.*; Aromataris, Giuseppe *Dept. of Electrical, Computer, and Biomedical Engineering, Univ.*; Moro, Andrea *Institute of Advanced Study IUSS, Pavia*; Annovazzi, Valerio *Univ. of Pavia*
- 18:30-18:45 ThGT11.5
Infant-Caregiver Interactions Affect the Early Development of Vocalization
 Asada, Minoru* *Osaka Univ.*; Endo, Nobutsuna *Osaka Univ.*
- ThGT16: 17:30-19:00 White 2
4.6 Cell Modeling (Oral Session)
 Chair: Manchanda, Rohit *IIT Bombay*
 Co-Chair: Amato, Francesco *Università degli Studi Magna Graecia di Catanzaro*
- 17:30-17:45 ThGT16.1
A Control-Theoretical Approach to the Identification of a Commitment Switch in B Lymphopoiesis Cell Fate Determination
 Salerno, Luca* *Univ. degli Studi Magna Graecia di Catanzaro*; Cosentino, Carlo *Univ. degli Studi Magna Graecia di Catanzaro*; Morrone, Giovanni *Univ. degli Studi Magna Graecia di Catanzaro*; Bilotta, Mariacconcetta *Univ. Magna Graecia di Catanzaro*; Amato, Francesco *Univ. degli Studi Magna Graecia di Catanzaro*
- 17:45-18:00 ThGT16.2
A Mathematical Model of the Calcium Transient in Urinary Bladder Smooth Muscle Cells
 Dave, Vijay* *Indian Institute of Technology Bombay, Mumbai*; Mahapatra, Chitaranjan *Indian Institute of Technology Bombay*; Manchanda, Rohit *IIT Bombay*

- 18:00-18:15 ThGT16.3
Impairment of Energy Metabolism in Cardiomyocytes Caused by 5-FU Catabolites can be Compensated by Administration of Amino Acids
 Lischke, Julia* *Univ. of Stuttgart*; Lang, Christine *Univ. of Stuttgart*; Sawodny, Oliver *Institute for System Dynamics, Univ. of Stuttgart*; Feuer, Ronny *Univ. of Stuttgart*
- 18:15-18:30 ThGT16.4
Dynamics of Cancer Progression and Suppression: A Novel Evolutionary Game Theory based Approach
 Banerjee, Jeet *Indian Institute of Technology Kharagpur*; Ranjan, Tanvi *Indian Institute of Technology Kharagpur*; Layek, Ritwik* *Indian Institute of Technology Kharagpur*
- 18:30-18:45 ThGT16.5
Epithelial Mesenchymal Transition in Lung Cancer Cells: A Quantitative Analysis
 Sarkar, Atasi *IIT Kharagpur*; Barui, Ananya *Centre for Healthcare Science and Technology, Indian Institute of Technology, WB*; Sengupta, Sanghamitra *Dept. of Biochemistry, Univ. of Calcutta, Kolkata, WB*; Chatterjee, Jyotirmoy *Indian Institute of Technology Kharagpur*; Ghorai, Santanu *Dept. of Applied Electronics & Instrumentation Engineering*; Mukherjee, Anirban* *Indian Institute of Technology Kharagpur*
- 18:45-19:00 ThGT16.6
Computational Studies on Bladder Small Dorsal Root Ganglion Neurons: Modelling BK Channels
 Mandge, Darshan* *Indian Institute of Technology Bombay, Mumbai, India*; Manchanda, Rohit *IIT Bombay*
- ThGT17: 17:30-19:00 Space 1
1.23 Brain Connectivity: Methodological Advancements and Future Challenges (Invited Session)
Chair: Astolfi, Laura *University of Rome Sapienza*
Co-Chair: Faes, Luca *University of Trento*
- 17:30-17:45 ThGT17.1
Identification of Whole-Brain Network Modules based on a Large Scale Granger Causality Approach
 Pester, Britta* *Jena Univ. Hospital; Friedrich Schiller Univ. Jena*; Schmidt, Christoph *Jena Univ. Hospital; Friedrich Schiller Univ. Jena*; Schmid-Hertel, Nicole *Jena Univ. Hospital, Friedrich Schiller Univ. Jena*; Witte, Herbert *Jena Univ. Hospital Friedrich Schiller Univ. Jena*; Wismueller, Axel *Dept. of Biomedical Engineering, Univ. of Rochester, N*; Leistritz, Lutz *Jena Univ. Hospital, Friedrich Schiller Univ. Jena*
- 17:45-18:00 ThGT17.2
Investigating the Neural Basis of Empathy by EEG Hyperscanning during a Third Party Punishment
 Astolfi, Laura* *Univ. of Rome Sapienza*; Toppi, Jlenia *Univ. of Rome "Sapienza"*; Mattia, Donatella *Fondazione Santa Lucia IRCCS*; Babiloni, Fabio *Univ. of Rome*; Ciaramidaro, Angela *Dept. of Child and Adolescent Psychiatry, Psychosomatics, a*; Siniatchkin, Michael *Univ. of Kiel*
- 18:00-18:15 ThGT17.3
Partial Directed Coherence Statistical Performance Characteristics in Frequency Domain
 Sameshima, Koichi* *Univ. de Sao Paulo, Faculdade de Medicina*; Takahashi, Daniel *Yasumasa Univ. of São Paulo*; Baccala, Luiz Antonio *Escola Politecnica*
- 18:15-18:30 ThGT17.4
Spectrally Weighted Granger-Causal Modeling: Motivation and Applications to Data from Animal Models and Epileptic Patients
 Plomp, Gijs* *Univ. of Fribourg*; Astolfi, Laura *Univ. of Rome Sapienza*; Coito, Ana *Institute for Systems and Robotics*; Michel, Christoph *Univ. of Geneva*
- 18:30-18:45 ThGT17.5
Investigating Dynamical Information Transfer in the Brain Following a TMS Pulse: Insights from Structural Architecture
 Amico, Enrico *Univ. of Liège and Univ. of Ghent*; van Mierlo, Pieter *Ghent Univ. - IBBT*; Marinazzo, Daniele* *Faculty of Psychology and Educational Sciences, Dept. of Da*; Laureys, Steven *Cyclotron Research Center, Univ. of Liege in Belgium*
- 18:45-19:00 ThGT17.6
On Neural Connectivity Estimation Problems
 Baccala, Luiz Antonio* *Escola Politecnica*; Sameshima, Koichi *Univ. de Sao Paulo, Faculdade de Medicina*
- ThGT18: 17:30-19:00 Space 2
1.24 Time-Frequency Analysis of Biosignals III (Oral Session)
Chair: Mainardi, Luca *Politecnico di Milano*
Co-Chair: Kahya, Yasemin P. *Bogazici University*
- 17:30-17:45 ThGT18.1
Reverse Bi-Orthogonal Wavelets and Fuzzy Classifiers for the Automatic Detection of Spike Waves in the EEG of the Hypoxic Ischemic Pre-Term Fetal Sheep
 Abbasi, Hamid* *Univ. of Auckland*; Gunn, Alistair Jan *Univ. of Auckland*; Bennet, Laura *The Univ. of Auckland*; Unsworth, Charles Peter *Univ. of Auckland*
- 17:45-18:00 ThGT18.2
Fast Under-Determined BSS Architecture Design Methodology for Real Time Applications
 Mopuri, Suresh *Indian Institute of Technology Hyderabad*; Pidala, Sreenivasa Reddy *Indian Institute of Technology Hyderabad*; Acharyya, Amit* *Indian Institute of Technology Hyderabad*; Naik, Ganesh R *Univ. of Technology Sydney*
- 18:00-18:15 ThGT18.3
Feature Extraction using Time-Frequency Analysis for Monophonic-Polyphonic Wheeze Discrimination
 Ulukaya, Sezer* *Bogazici Univ.*; Sen, Ipek *Electrosalus Inc.*; Kahya, Yasemin P. *Bogazici Univ.*
- 18:15-18:30 ThGT18.4
Estimation of Sleep Status in Sleep Apnea Patients using a Novel Head Actigraphy Technique
 Hummel, Richard *BresoTec Inc.*; Bradley, T. Douglas *Univ. of Toronto*; Fernie, Geoff *Univ. of Toronto*; Chang, Sung Jae *Isaac Univ. of Toronto*; Alshaer, Hisham* *Toronto Rehabilitation Inst, UHN*
- 18:30-18:45 ThGT18.5
Automatic Identification of Cyclic Alternating Pattern (CAP) Sequences based on the Teager Energy Operator
 Machado, Fátima *Univ. of Coimbra*; Bento, Conceição *Centro Hospitalar e Univ. de Coimbra*; Sales, Francisco *Hospitais da Univ. de Coimbra*; Dourado, António *FCTUC, Univ. of Coimbra*; Teixeira, César* *Univ. of Coimbra*
- 18:45-19:00 ThGT18.6
Inertial Sensor based and Shoe Size Independent Gait Analysis Including Heel and Toe Clearance Estimation
 Kanzler, Christoph *Matthias* Digital Sports Group, Pattern Recognition Lab, Friedrich-Alexand*; Barth, Jens *ASTRUM IT GmbH*; Ramm, Alexander *ASTRUM IT GmbH*; Schlarb, Heiko *Adidas AG*; Rott, Franz *Adidas AG*; Klucken, Jochen *Univ. Hospital Erlangen*; Eskofier, Bjoern M *Friedrich-Alexander-Univ. Erlangen-Nürnberg*
- ThGT19: 17:30-19:00 Space 3
2.18 MR Neuroimaging (Oral Session)
Chair: Tong, Shanbao *Shanghai Jiao Tong University*
- 17:30-17:45 ThGT19.1
High-Resolution Quantitative Imaging of the Substantia Nigra
 Trujillo, Paula* *Politecnico di Milano*; Smith, Alex K. *Vanderbilt Univ. Institute of Imaging Science, Vanderbilt U*; Summers, Paul E. *Dept. of Neuroradiology, Fondazione IRCCS Ca' Granda - Ospite*; Mainardi, Luca *Politecnico di Milano*; Cerutti, Sergio *Politecnico di Milano*; Smith, Seth A. *Vanderbilt Univ. Institute of Imaging Science, Vanderbilt U*; Costa, Antonella *Dept. of Neuroradiology, Fondazione IRCCS Ca' Granda - Ospite*
- 17:45-18:00 ThGT19.2
The Impact of Data Preprocessing in Traumatic Brain Injury Detection using Functional Magnetic Resonance Imaging
 Vergara, Victor Manuel* *The Mind Research Network*; Damaraju, Eswar *The Mind Research Network & LBERI, Albuquerque, New Mexico, USA*; Mayer, Andrew *Mind Research Network, Albuquerque, NM*; Miller, Robyn *The Mind Research Network*; Cetin, Mustafa S. *Univ. of New Mexico, The Mind Research Network, Albuquerque*; Calhoun, Vince *The Mind Research Network/Univ. of New Mexico*

- 18:00-18:15 ThGT19.3
Brain Tissues Atrophy is Not Always the Best Structural Biomarker of Physiological Aging: A Multimodal Cross-Sectional Study
 Cherubini, Andrea* *IBFM-CNR, Magna Graecia Univ.*; Caligiuri, Maria Eugenia *National Research Council*; Pérán, Patrice *INSERM 825 unit, Toulouse*; Sabatini, Umberto *IRCCS Fondazione Santa Lucia*; Cosentino, Carlo *Univ. degli Studi Magna Graecia di Catanzaro*; Amato, Francesco *Univ. degli Studi Magna Graecia di Catanzaro*
- 18:15-18:30 ThGT19.4
Improved Partial Volume Correction Method for Detecting Brain Activation in Disease using Arterial Spin Labeling (ASL) fMRI
 Bruening, Dylan *Rochester Institute of Tech.*; Dharssi, Shazia *Johns Hopkins Univ. Medical School*; Lazar, Roland M *Columbia Univ. Medical Center*; Marshall, Randolph S *Columbia Univ. Medical Center*; Asllani, Iris* *Rochester Institute of Tech.*
- 18:30-18:45 ThGT19.5
Spontaneous Neuronal Activity in Insula Predicts Symptom Severity of Unmedicated Obsessive Compulsive Disorder Adults
 Zhu, Yajing *School of Biomedical Engineering and Med-X Research Institute, S*; Fan, Qing *Shanghai Mental Health Center, Shanghai Jiao Tong Univ. Sch*; Zhang, Zongfeng *Shanghai Mental Health Center, Shanghai Jiao Tong Univ. Sch*; Zhang, Haiyin *Shanghai Mental Health Center, Shanghai Jiao Tong Univ. Sch*; Tong, Shanbao *Shanghai Jiao Tong Univ.*; Li, Yao* *Shanghai Jiao Tong Univ.*
- 18:45-19:00 ThGT19.6
Combining EPI and Motion Correction for fMRI Human Brain Images with Big Motion
 Lu, Zhongkang* *Institute for Infocomm Research*; Phua, Kok Soon *Institute for Infocomm Research*; Huang, Weimin *Institute for Infocomm Research, Agency for Science Technology and*; Hong, Xin *Singapore Bioimaging Consortium*; Nasrallah, Fatima Ali *Clinical Imaging Research Centre*; Chuang, Kai Hsiang *Singapore Bioimaging Consortium*; Guan, Cuntai *Institute for Infocomm Research*
- ThGT20: 17:30-19:00 Space 4
3.6 RF Technologies for Medical Implants II (Invited Session)
 Chair: Balasingham, Ilango *Oslo University Hospital and Norwegian University of Science and Technology*
 Co-Chair: Chavez-Santiago, Raul *Oslo University Hospital*
- 17:30-17:45 ThGT20.1
Wireless Power Transmission for Biomedical Implants: The Role of Near-Zero Threshold CMOS Rectifiers
 Mohammadi, Ali* *Monash Univ.*; Redouté, Jean-Michel *Monash Univ.*; Yuce, Mehmet *Monash Univ.*
- 17:45-18:00 ThGT20.2
Experimental UWB Frequency Analysis for Implant Communications
 Garcia-Pardo, Concepcion* *Univ. Politècnica de València*; Chavez-Santiago, Raul *Oslo Univ. Hospital*; Cardona, Narcis *Univ. Politècnica de València*; Balasingham, Ilango *Oslo Univ. Hospital and Norwegian Univ. of Science and*
- 18:00-18:15 ThGT20.3
Investigation of In-Body Path Loss in Different Human Subjects for Localization of Capsule Endoscope
 Ara, Perzila* *Macquarie Univ. ,Sydney*; Cheng, Shaokoon *Macquarie Univ. ,Sydney*; Heimlich, Michael *Macquarie Univ. ,Sydney*; Dutkiewicz, Eryk *Macquarie Univ. ,Sydney*
- 18:15-18:30 ThGT20.4
Reconfigurable Antenna Options for 2.45/5 GHz Wireless Body Area Networks in Healthcare Applications
 Abbas, Syed Muzahir* *Macquarie Univ.*; Ranga, Yogesh *Macquarie Univ.*; Esselle, Karu *Macquarie Univ.*
- 18:30-18:45 ThGT20.5
Performance Comparison between UWB-IR and MB-OFDM with Transmit Diversity in Implant Communications
 Shimizu, Yuto* *Naogya Institute of Technology*; Furukawa, Tomofumi *Nagoya Institute of Technology*; Anzai, Daisuke *Nagoya Institute of Technology*; Wang, Jianqing *Nagoya Institute of Technology*
- 18:45-19:00 ThGT20.6
Efficiency Optimization of Class-D Biomedical Inductive Wireless Power Transfer Systems by Means of Frequency Adjustment
 Schormans, Matthew James* *Univ. College London*; Valente, Virgilio *Univ. College London*; Demosthenous, Andreas *Univ. College London*
- ThGT21: 17:30-19:00 Suite 8
12.1 Innovations to Support Elderly in a Multi-Residential Setting (Invited Session)
 Chair: Zhang, Qing *CSIRO ICT Centre*
 Co-Chair: Karunanithi, Mohanraj *CSIRO Digital Productivity Flagship*
- 17:30-17:45 ThGT21.1
Context Aware Falls Risk Assessment: A Case Study Comparison
 Reginatto, Brenda* *Univ. College Dublin*; Taylor, Kenneth *Univ. College Dublin*; Patterson, Matt *Univ. College Dublin*; Power, Dermot *Mater Misericordiae Univ. Hospital*; Komaba, Yusuke *Fujitsu Ireland Ltd.*; Maeda, Kazuho *Fujitsu Laboratories Ltd.*; Inomata, Akihiro *Fujitsu Japan*; Caulfield, Brian *UCD*
- 17:45-18:00 ThGT21.2
Multi-Resident Identification using Device-Free IR and RF Fingerprinting
 Schafermeyer, Erich *Portland State Univ.*; Wan, Eric* *Portland State Univ.*; Samin, Shadman *Portland State Univ.*; Zentzis, Noah *Portland State Univ.*; Nicholas, Preiser *Oregon Health and Science Univ.*; Condon, John P *Advanced Medical Electronics*; Folsom, Jon *MotioSens*; Jacobs, Peter G. *Oregon Health & Science Univ.*
- 18:00-18:15 ThGT21.3
Remote Health Coaching for Interactive Exercise with Older Adults in a Home Environment
 Jimison, Holly* *Northeastern Univ.*; Hagler, Stuart *Oregon Health and Science Univ.*; Kurillo, Gregorij *Univ. of California, Berkeley*; Bajcsy, Ruzena *UC Berkeley, CITRIS*; Pavel, Misha *Northeastern Univ.*
- 18:15-18:30 ThGT21.4
Preliminary Study of a New Home Healthcare Monitoring to Prevent the Recurrence of Stroke
 Tamura, Toshiyo* *Osaka Electro-Communication Univ.*; Sekine, Masaki *Osaka Electro-Communication Univ.*; Tang, Zunyi *Osaka Electro-Communication Univ.*; Yoshida, Masaki *Osaka Electro-Communication Univ.*; Takeuchi, Yoshinori *Osaka Univ.*; Imai, Masaharu *Osaka Univ.*
- 18:30-18:45 ThGT21.5
Pervasive Health Monitor and Analysis based on Multi-Parameter Smart Armband
 Yu, Yang *Tsinghua Univ.*; Wang, Qian *Chinese Academy of Sciences*; Liu, Jing* *Tsinghua Univ.*
- 18:45-19:00 ThGT21.6
Unsupervised Daily Routine and Activity Discovery in Smart Homes
 Yin, Jie* *CSIRO*; Zhang, Qing *CSIRO ICT Centre*; Karunanithi, Mohanraj *CSIRO Digital Productivity Flagship*

FrAT1: 08:30-10:00 Brown 1
8.10 New Technologies and Methodologies in Human Movement Analysis I (Oral Session)
Chair: Della Croce, Ugo *University of Sassari*
Co-Chair: Durfee, William *University of Minnesota*

08:30-08:45 FrAT1.1
A Stereophotogrammetric-Based Method to Assess Spatio-Temporal Gait Parameters on Healthy and Parkinsonian Subjects
 Maranesi, Elvira* *Univ. Politecnica delle Marche*; Capitanelli, Leonardo *Univ. Politecnica delle Marche*; Capecci, Marianna *Univ. Politecnica delle Marche*; Ghetti, Giacomo Giuseppe *Posture and Movement Analysis Laboratory, INRCA Geriatric Hospit*; Mercante, Oriano *Posture and Movement Analysis Laboratory, INRCA Geriatric Hospit*; Di Nardo, Francesco *Polytechnic Univ. of Marche*; Burattini, Laura *Univ. Politecnica delle Marche*; Ceravolo, Maria Gabriella *Dept. of Experimental and Clinical Medicine, Univ. Pol.*; Fioretti, Sandro *Univ. Politecnica delle Marche*

08:45-09:00 FrAT1.2
Foot Clearance Estimation during Overground Walking and Vertical Obstacle Passing using Shank-Mounted MIMUs in Healthy and Pathological Subjects
 Trojaniello, Diana *Univ. of Sassari*; Cereatti, Andrea* *Univ. of Sassari*; Della Croce, Ugo *Univ. of Sassari*

09:00-09:15 FrAT1.3
The Effects of an Ankle Foot Orthosis on Cerebral Palsy Gait: A Multiple Regression Analysis
 Wahid, Md. Ferdous *The Univ. of Melbourne*; Begg, Rezaul* *Victoria Univ.*; Sangeux, Morgan *The Royal Children's Hospital*; Halgamuge, Saman *Univ. of Melbourne*; Ackland, David *Univ. of Melbourne*

09:15-09:30 FrAT1.4
Preliminary Design of a New Device to Measure Muscle Function
 Durfee, William* *Univ. of Minnesota*;
 Lind, Jeffrey *Univ. of Minnesota*

09:30-09:45 FrAT1.5
Measurement of Biomechanical Interactions at the Stump-Socket Interface in Lower Limb Prostheses
 Noll, Veronika* *TU Darmstadt*; Wojtus, Janis *Technische Univ. Darmstadt*; Schuy, Jochen *TU Darmstadt*; Grimmer, Martin *Technische Univ. Darmstadt*; Beckerle, Philipp *Technische Univ. Darmstadt*; Institute for Mechatronic Syst; Rinderknecht, Stephan *TU Darmstadt, Institute for Mechatronic Systems in Mechanical En*

09:45-10:00 FrAT1.6
Disposable Soft 3 Axis Force Sensor for Biomedical Applications
 Katudampe Vithanage, Damith Suresh Chathuranga* *Ristumeikan Univ.*; Wang, Zhongkui *Ristumeikan Univ.*; Noh, Yohan *King's College London*; Nanayakkara, Thrishantha *King's College London*; Hirai, Shinichi *Ristumeikan Univ.*

FrAT2: 08:30-10:00 Brown 2
9.8 Medical Systems Design and Development (Oral Session)
Co-Chair: Dong, Tao *Buskerud and Vestfold University College - HBV, TekMar, IMST*

08:30-08:45 FrAT2.1
A Blood Viscosity Estimation Method based on Pressure-Flow Characteristics of an Oxygenator during Cardiopulmonary Bypass and Its Clinical Application
 Okahara, Shigeyuki* *Graduate School of Engineering, Hiroshima Univ.*; Tsuji, Toshio *Hiroshima Univ.*; Soh, Zu *Dept. of System Cybernetics, Institute of Engineering, Hiro, Takahashi, Shinya Dept. of Cardiovascular Surgery, Hiroshima Univ. Hospi*; Sueda, Taijiro *Dept. of Cardiovascular Surgery, Hiroshima Univ. Hospi*

08:45-09:00 FrAT2.2
Seven Phases of Gait Detected in Real-Time using Shank Attached Gyroscopes
 Behboodi, Ahad* *Univ. of Delaware*; Wright, Henry *Univ. of Delaware*; Zahradka, Nicole *Univ. of Delaware*; Lee, Samuel *Shriners Hospital for Children*

09:00-09:15 FrAT2.3
Analysis of Gold Nanoparticles as Carriers for Different Molecular Dye Type Photosensitizers in Photodynamic Therapy Applied to Carcinomas
 Salas-García, Irene *Univ. of Cantabria*; Fanjul-Vélez, Félix* *Univ. of Cantabria*; Arce-Diego, José L. *Univ. of Cantabria*

09:15-09:30 FrAT2.4
Development of Diagnostic Sensors for Infant Dehydration Assessment using Optical Methods
 Kieser, Eduard *Stellenbosch Univ.*; Dellimore, Kiran* *Philips Research*; Scheffer, Cornie *Stellenbosch Univ.*; Jacobus, Visser *Stellenbosch Univ.*; Smith, Johan *Faculty of Medicine, Stellenbosch Univ.*

09:30-09:45 FrAT2.5
A Single Element 3D Ultrasound Tomography System
 Zhang, Xiang* *Massachusetts Institute of Tech.*; Fincke, Jonathan *Massachusetts Institute of Tech.*; Kuzmin, Andrey *Skolkovo Institute of Science and Tech.*; Lempitsky, Victor *Skolkovo Institute of Science and Tech.*; Anthony, Brian W. *Massachusetts Institute of Tech.*

09:45-10:00 FrAT2.6
Rapid Detection of E. Coli Cells from Urine Samples using a Self-Capacitance Touchscreen Device
 Bergstrøm, Jennifer *Panugan Vestfold Univ. College*; Dong, Tao* *Buskerud and Vestfold Univ. College - HBV, TekMar, IMST*

FrAT3: 08:30-10:00 Brown 3
6.18 Local Field Potentials in Movement Disorders (Invited Session)
Chair: Ince, Nuri *Firat University of Houston*
Co-Chair: Marceglia, Sara *Università degli Studi di Trieste*

08:30-08:45 FrAT3.1
Application of Higher-Order Spectral Analysis to Local Field Potentials Recorded in Patients Treated with Deep Brain Stimulation
 Marceglia, Sara* *Univ. degli Studi di Trieste*; Bianchi, Anna Maria *Politecnico di Milano*; Guglielmo, Foffani *Drexel Univ.*; Priori, Alberto *Univ. di Milano, Fondazione IRCCS Ospedale MaggiorePoliclin*; Cerutti, Sergio *Politecnico di Milano*

08:45-09:00 FrAT3.2
Motor Task Event Detection using Subthalamic Nucleus Local Field Potentials
 Niketeghad, S. *Univ. of Denver*; Hebb, Adam O. *Univ. of Washington*; Nedrud, Joshua *Colorado Neurological Institute*; Hanrahan, Sara *Univ. of Utah*; Mahoor, Mohammad H.* *Univ. of Denver*

09:00-09:15 FrAT3.3
Spatial Distribution of Nonlinear Interactions in Subthalamic Nucleus Local Field Potentials in Parkinson's Disease
 Meloni, Gianluca* *Univ. of Houston*; Sen, Anish *Baylor College of Medicine*; Abosch, Aviva *Univ of Minnesota*; Ince, Nuri *Firat Univ. of Houston*

09:15-09:30 FrAT3.4
Spatio-Spectral Characterization of Local Field Potentials in the Subthalamic Nucleus via Multitrack Microelectrode Recordings
 Telkes, Ilknur* *Univ. of Houston*; Ince, Nuri *Firat Univ. of Houston*; Onaran, Ibrahim *Univ. of Houston*; Abosch, Aviva *Univ. of Minnesota*

09:30-09:45 FrAT3.5
Time-Frequency Characterization of Local Field Potential in a Decision Making Task
 Loncar-Turukalo, Tatjana* *Univ. of Novi Sad*; Mijatovic, Gorana *Faculty of technical Sciences, Univ. of Novi Sad*; Bozanic, Nebojsa *Institute of Complex Systems, National Research Council (CNR), F*; Stoll, Frederic *INSERM U846, Stem Cell and Brain Research Institute*; Bajic, Dragana *Univ. of Novi Sad*; Procyk, Emmanuel *INSERM U846, Stem Cell and Brain Research Institute*

09:45-10:00	FrAT3.6	Local Field Potentials for Adaptive Deep Brain Stimulation Systems Priori, Alberto* <i>Univ. di Milano, Fondazione IRCCS Ospedale Maggiore Policlin; Rosa, Manuela Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico; Arlotti, Mattia Univ. of Bologna; Rossi, Lorenzo Politecnico di Milano; Guglielmo, Foffani Drexel Univ.; Marceglia, Sara Univ. degli Studi di Trieste</i>	08:45-09:00	FrAT5.2	Online Detection of Tonic-Clonic Seizures in Pediatric Patients using ECG and Low-Complexity Incremental Novelty Detection De Cooman, Thomas* <i>KU Leuven, Dept. of Electrical Engineering-ESAT, STADIUS; Van de Vel, Anouk Univ. Hospital of Antwerp; Ceulemans, Berten Univ. Hospital of Antwerp; Lagae, Lieven Univ. Hospital of Leuven; Vanrumste, Bart Katholieke Univ. Leuven; Van Huffel, Sabine Katholieke Univ. Leuven</i>
FrAT4: 08:30-10:00	Amber 1	1.25 Signal Processing in Physiological Systems I: Speech (Oral Session) Chair: de Carvalho, Paulo <i>University of Coimbra - NIF</i> Co-Chair: Tognola, Gabriella <i>IEIIT CNR</i>	09:00-09:15	FrAT5.3	Analysis of Epileptic Seizure Count Time Series by Ensemble State Space Modelling Galka, Andreas* <i>Christian-Albrechts-Univ. of Kiel; Boor, Rainer Dept. of Neuropediatrics, Univ. of Kiel; Doege, Corinna Dept. of Neuropediatrics, Univ. of Kiel; von Spiczak, Sarah Dept. of Neuropediatrics, Univ. of Kiel; Stephani, Ulrich Christian-Albrechts-Univ. of Kiel; Siniatchkin, Michael Univ. of Kiel</i>
08:30-08:45	FrAT4.1	Detection of Mild Alzheimer's Disease and Mild Cognitive Impairment from Elderly Speech: Binary Discrimination using Logistic Regression Kato, Shohei* <i>Nagoya Institute of Technology; Homma, Akira Tokyo Dementia Care Research and Training Center; Sakuma, Takuto Nagoya Institute of Technology; Nakamura, Munehiro Nagoya Institute of Technology</i>	09:15-09:30	FrAT5.4	Support Vector Machines using EEG Features of Cross-Frequency Coupling Can Predict Treatment Outcome in Mecp2-Deficient Mice Colic, Sinisa* <i>Univ. of Toronto; Wither, Rob Univ. of Toronto; Lang, Min Univ. of Toronto; Zhang, Liang Univ. of Toronto; Eubanks, James Univ. of Toronto; Bardakjian, Berj Luther Univ. of Toronto</i>
08:45-09:00	FrAT4.2	Pronunciation Analysis for Children with Speech Sound Disorders Dudy, Shiran* <i>CSLU/OHSU; Asgari, Meysam CSLU/OHSU; Kain, Alexander CSLU/OHSU</i>	09:30-09:45	FrAT5.5	Identification of Epileptogenic Networks from Dense EEG: A Model-Based Study Hassan, Mahmoud <i>Univ. de Rennes 1; Mheich, Ahmad Univ. of Rennes1; Biraben, Arnaud CHU Rennes; Merlet, Isabelle* INSERM - Univ. de Rennes 1; Wendling, Fabrice INSERM - Univ. de Rennes 1</i>
09:00-09:15	FrAT4.3	Objective Measures of Perceptual Quality for Predicting Speech Intelligibility in Sensorineural Hearing Loss Chiaromello, Emma* <i>IEIIT Institute of Electronics, Computers and Telecommunication; Moriconi, Stefano National Research Council; Tognola, Gabriella IEIIT CNR</i>	09:45-10:00	FrAT5.6	A Neural Network based Infant Monitoring System to Facilitate Diagnosis of Epileptic Seizures Ogura, Yuya* <i>Hiroshima Univ.; Hayashi, Hideaki Hiroshima Univ.; Nakashima, Shota Hiroshima Univ.; Soh, Zu Dept. of System Cybernetics, Institute of Engineering, Hiro; Shibanoki, Taro Ibaraki Univ.; Shimatani, Koji Prefectural Univ. of Hiroshima; Takeuchi, Akihito National Hospital Organization Okayama Medical Center; Nakamura, Makoto National Hospital Organization Okayama Medical Center; Okumura, Akihisa Aichi Medical Univ.; Kurita, Yuichi Hiroshima Univ.; Tsuji, Toshio Hiroshima Univ.</i>
09:15-09:30	FrAT4.4	Detection of Wheezes using Their Signature in the Spectrogram Space and Musical Features Mendes, Luis* <i>Univ. of Coimbra; Vogiatzis, Ioannis General Hospital of Imathia - Health Unit of Naoussa; Perantoni, Eleni G.H. G.Papanikolaou, Thessaloniki Greece; Kaimakamis, Evangelos Aristotle Univ. of Thessaloniki; Chouvarda, Ioanna Aristotle Univ.; Maglaveras, Nikolaos Aristotle Univ. of Thessaloniki; Tsara, Venetia G.H. G.Papanikolaou, Thessaloniki Greece; Teixeira, César Univ. of Coimbra; de Carvalho, Paulo Univ. of Coimbra - NIF; Henriques, Jorge Univ. of Coimbra - NIF; Paiva, Rui Pedro Univ. of Coimbra</i>	FrAT6: 08:30-10:00	Amber 3	2.19 X-Ray Imaging I (Oral Session) Chair: Fotiadis, Dimitrios I. <i>University of Ioannina</i>
09:30-09:45	FrAT4.5	Parameter-Based Binaural Hearing Aid Algorithms to Improve Speech Intelligibility and Localization in Complex Environments Lee, Young Woo* <i>Samsung Electronics; Moore, Brian Cecil Joseph Univ. of Cambridge</i>	08:30-08:45	FrAT6.1	X-Ray CT Image Reconstruction from Few-Views via Total Generalized P-Variation Minimization Zhang, Hanming* <i>National Digital Switching System Engineering & Technological R&; Xi, Xiaoqi National Digital Switching System Engineering & Technological R&; Yan, Bin China National Digital Switching System Engineering and Technolo; Han, Yu National Digital Switching System Engineering & Technological R&; Li, Lei National Digital Switching System Engineering & Technological R&; Chen, Jianlin National Digital Switching System Engineering & Technological R&; Cai, Ailong National Digital Switching System Engineering & Technological R&</i>
09:45-10:00	FrAT4.6	Computerised Objective Measurement of Strain in Voiced Speech Jalalinajafabadi, Farideh* <i>The Univ. of Manchester; Gadepalli, Chaitanya NHS; Ghasempour, Mohsen The Univ. of Manchester; Lujan, Mikel The Univ. of Manchester; Cheetham, Barry The Univ. of Manchester; Homer, Jarrod NHS</i>	08:45-09:00	FrAT6.2	Computed Tomography Image Source Identification by Discriminating CT-Scanner Image Reconstruction Process Duan, Y. <i>Telecom Bretagne; Coatrieux, G.* Institute Telecom - Telecom Bretagne - Inserm; Shu, H. Southeast Univ.</i>
FrAT5: 08:30-10:00	Amber 2	1.26 Biomedical Signal Classification VII: Epilepsy Studies (Oral Session)	09:00-09:15	FrAT6.3	X-Ray Microtomography of Collagen and Poly lactide Scaffolds in Liquids Hannula, Markus* <i>Tampere Univ. of Technology; Haaparanta, Anne-Marie Tampere Univ. of Technology; Tamminen, Ilmari Tampere Univ. of Technology; Aula, Antti Tampere Univ. of Technology; Kellomäki, Minna Tampere Univ. of Technology; Hyttinen, Jari Tampere Univ. of Technology</i>
08:30-08:45	FrAT5.1	Using Wearable Sensors for Semiology-Independent Seizure Detection – Towards Ambulatory Monitoring of Epilepsy Heldberg, Beeke E* <i>Friedrich-Alexander Univ. Erlangen-Nürnberg (FAU); Kautz, Thomas Friedrich-Alexander-Univ. Erlangen-Nürnberg; Leutheuser, Heike Digital Sports Group, Pattern Recognition Lab, Dept. of Com; Hopfengärtner, Rüdiger Epilepsy Center, Dept. of Neurology, Univ. Hospital Er; Kasper, Burkhard Epilepsy Center, Dept of Neurology, Univ. Hospital E; Eskofier, Bjoern M Friedrich-Alexander-Univ. Erlangen-Nürnberg</i>			

09:15-09:30	FrAT6.4	Simulated Imaging of Atherosclerotic and Radiofrequency Ablation Lesions using Phase Subtraction Jameson, John <i>Mayo Clinic</i> ; David, Holmes <i>Mayo Clinic</i> ; Buhrow, Benjamin <i>Mayo Clinic</i> ; Daniel, Erik <i>Mayo Clinic College of Medicine</i> ; Gilbert, Barry <i>Mayo Clinic College of Medicine</i> ; Haider, Clifton* <i>Mayo Clinic</i>	FrAT8: 08:30-10:00 5.6 Cardiac Electrophysiology I (Oral Session) Chair: Dokos, Socrates <i>University of New South Wales</i> Co-Chair: Panescu, Dorin <i>Advanced Cardiac Therapeutics</i>	Amber 5
09:30-09:45	FrAT6.5	Optimization-Based Scatter Estimation using Semi-Transparent Beam Absorber Array Chen, Yi <i>Shanghai Jiao Tong Univ.</i> ; Song, Ying <i>Sichuan Univ., Chengdu, China.</i> ; Ma, Jingchen <i>Shanghai Jiao Tong Univ.</i> ; Zhao, Jun* <i>Shanghai Jiao Tong Univ.</i>	08:30-08:45 ICD Lead Failure Detection in Chronic Soaked Leads Kollmann, Daniel <i>Koronis Biomedical Technologies</i> ; Swerdlow, Charles <i>Univ. of California Los Angeles</i> ; Kroll, Mark <i>Univ. of Minnesota</i> ; Seifert, Gregory John <i>Advanced Medical Electronics</i> ; Lichter, Patrick <i>Koronis Biomedical Technologies</i> ; Hedin, Daniel <i>Advanced Medical Electronics</i> ; Panescu, Dorin* <i>Advanced Cardiac Therapeutics</i>	FrAT8.1
09:45-10:00	FrAT6.6	Three-Dimensional Reconstruction of Coronary Arteries and Plaque Morphology using CT Angiography – Comparison and Registration using IVUS Athanasίου, Lambros <i>Univ. of Ioannina</i> ; Rigas, Georgios <i>Univ. of Ioannina</i> ; Sakellarios, Antonis <i>Univ. of Ioannina</i> ; Exarchos, Themis P. <i>Unit of Medical Tech & Intelligent Info</i> ; Siogkas, Panagiotis <i>FORTH-IMBB</i> ; Michalis, Lampros <i>Univ. of Ioannina</i> ; Parodi, Oberdan <i>CNR Clinical Physiology Institute - Milan</i> ; Vozzi, F. <i>IFC-CNR</i> ; Fotiadis, Dimitrios I.* <i>Univ. of Ioannina</i>	08:45-09:00 Analytical Description of the Slope of the APD-Restitution Curve to Assess the Interacting Contribution of Conduction and Repolarization Dynamics Orini, Michele* <i>Univ. College London</i> ; Taggart, Peter <i>Univ. College London</i> ; Hayward, Martin <i>Univ. College London Hospital</i> ; Lambiase, Pier <i>Univ. College London Hospital</i>	FrAT8.2
FrAT7: 08:30-10:00	Amber 4	2.20 Retinal and Ophthalmic Imaging II (Oral Session) Co-Chair: Ruggeri, Alfredo <i>University of Padua</i>	09:00-09:15 On How 2: 1 Conduction Block Can Induce T-Wave Alternans in the Unipolar Intracavitary Electrogram: Modelling In-Vivo Human Recordings from an Ischemic Heart Orini, Michele* <i>Univ. College London</i> ; Taggart, Peter <i>Univ. College London</i> ; Hayward, Martin <i>Univ. College London Hospital</i> ; Lambiase, Pier <i>Univ. College London Hospital</i>	FrAT8.3
08:30-08:45	FrAT7.1	Computer-Assisted Identification of Proliferative Diabetic Retinopathy in Color Retinal Images Gupta, Garima* <i>Indian Institute of Technology Madras, India</i> ; Selvaraj, Kulasekaran <i>Madras Christian College</i> ; Ram, Keerthi <i>International Institute of Information Technology-Hyderabad</i> ; Joshi, Niranjan <i>Healthcare Technology Innovation Centre</i> ; Sivaprakasam, Mohanasankar <i>Indian Institute of Technology Madras</i> ; Gandhi, Rashmin <i>Beyond Eyecare</i>	09:15-09:30 Far-Field Effect in Unipolar Electrograms Revisited: High-Density Mapping of Atrial Fibrillation in Humans Podziemski, Piotr* <i>Warsaw Univ. of Technology</i> ; Kuklik, Pawel <i>Centre for Heart Rhythm Disorders, South Australian Health and M</i> ; van Hunnik, Arne <i>Maastricht Univ.</i> ; Zeemering, Stef <i>Maastricht Univ.</i> ; Maesen, Bart <i>Maastricht Univ. Hospital</i> ; Schotten, Ulrich <i>Maastricht Univ.</i>	FrAT8.4
08:45-09:00	FrAT7.2	Method for Segmentation of the Layers in the Outer Retina Novosel, Jelena* <i>Rotterdam Eye Hospital</i> ; Vermeer, Koenraad A. <i>Rotterdam Ophthalmic Institute, Rotterdam Eye Hospital</i> ; Pierrache, L.H.M. <i>Rotterdam Ophthalmic Institute, Rotterdam</i> ; Dept. of Ophtha; Klaver, C.C.W. <i>Dept. of Ophthalmology and the Dept. of Epidemiology</i> ; van den Born, L. I. <i>Rotterdam Eye Hospital and the Rotterdam Ophthalmic Institute, R</i> ; van Vliet, Lucas <i>TU Delft</i>	09:30-09:45 Electromechanics Modeling of the Effects of Myocardial Infarction on Left Ventricular Function Leong, Chin Neng* <i>Univ. of Malaya</i> ; Al Abed, Amr <i>Univ. of New South Wales</i> ; Lim, Einly <i>Univ. of Malaya</i> ; Lovell, Nigel H. <i>Univ. of New South Wales</i> ; Marasco, Silvana <i>The Alfred</i> ; Hashim, Shahrul Amry <i>Univ. of Malaya</i> ; Dokos, Socrates <i>Univ. of New South Wales</i>	FrAT8.5
09:00-09:15	FrAT7.3	Retinal Image Registration based on Keypoint Correspondences, Spherical Eye Modeling and Camera Pose Estimation Hernandez-Matas, Carlos* <i>FORTH</i> ; Zabulis, Xenophon <i>Foundation for Resrch & Tech.</i> ; Argyros, Antonis <i>Univ. of Crete</i>	09:45-10:00 Low-Energy Defibrillation with Multi-Electrodes Stimulation: A Simulation Study Jin, Lian <i>Fudan Univ.</i> ; Wang, Jianfei <i>Fudan Univ.</i> ; Song, Biao <i>Fudan Univ.</i> ; Wu, Xiaomei* <i>Fudan Univ.</i> ; Fang, Zuxiang <i>Fudan Univ.</i>	FrAT8.6
09:15-09:30	FrAT7.4	Combining Efficient Hand-Crafted Features with Learned Filters for Fast and Accurate Corneal Nerve Fibre Centreline Detection Annunziata, Roberto* <i>Univ. of Dundee</i> ; Kheirkhah, Ahmad <i>Harvard Medical School</i> ; Hamrah, Pedram <i>Massachusetts Eye and Ear Infirmary, Harvard Medical School</i> ; Trucco, Emanuele <i>Univ. of Dundee</i>	FrAT9: 08:30-10:00 5.7 Ubiquitous Blood Pressure and Heart Rate Monitoring (Oral Session) Chair: Mukkamala, Ramakrishna <i>Michigan State University</i> Co-Chair: Avolio, Alberto P <i>Macquarie University</i>	Amber 6
09:30-09:45	FrAT7.5	Age-Related Changes of the Corneal Speckle by Optical Coherence Tomography Jesus, Danilo Andrade* <i>Wroclaw Univ. of Technology</i> ; Iskander, D Robert <i>Wroclaw Univ. of Technology</i>	08:30-08:45 Carotid Arterial Blood Pressure Waveform Monitoring using a Portable Ultrasound System Seo, Joohyun* <i>Massachusetts Institute of Technology</i> ; Pietrangelo, Sabino <i>Massachusetts Institute of Technology</i> ; Lee, Hae-Seung <i>Massachusetts Institute of Technology</i> ; Sodini, Charles G. <i>Massachusetts Institute of Technology</i>	FrAT9.1
09:45-10:00	FrAT7.6	Red Lesion Detection in Retinal Fundus Images using Frangi-Based Filters Srivastava, Ruchir* <i>Institute for Infocomm Research</i> ; Wong, Damon <i>Institute for Infocomm Research</i> ; Duan, Lixin <i>Institute for Infocomm Research</i> ; Liu, Jiang <i>Institute for Infocomm Research, A STAR</i> ; Wong, Tien Yin <i>National Univ. of Singapore</i>	08:45-09:00 Pulse Rate Variability Analysis by Video using Face Detection and Tracking Algorithms Melchor, Angel* <i>Univ. Politècnica de Catalunya</i> ; Ramos-Castro, Juan <i>Univ. Politècnica de Catalunya</i>	FrAT9.2

09:00-09:15	FrAT9.3	Accuracy of Heart Rate Variability Estimation by Photoplethysmography using a Smartphone: Processing Optimization and Fiducial Point Selection Ferrer-Mileo, Víctor* <i>Univ. Politècnica de Catalunya</i> ; Guede-Fernandez, Federico <i>Univ. Politècnica de Catalunya</i> ; Fernandez-Chimeno, Mireya <i>Technical Univ. of Catalonia</i> ; Ramos-Castro, Juan <i>Univ. Politècnica de Catalunya</i> ; Garcia-Gonzalez, Miguel A. <i>Univ. Politècnica de Catalunya</i>	FrAT11: 08:30-10:00 6.20 Brain Functional Imaging II (Oral Session) Chair: Shah, Adnan <i>University of Melbourne</i> Co-Chair: Parhi, Keshab <i>University of Minnesota</i>	Amber 8
09:15-09:30	FrAT9.4	Cuffless Blood Pressure Estimation using the Carotid Arterial Pulse Buxi, Dilpreet* <i>Monash Univ.</i> ; Redouté, Jean-Michel <i>Monash Univ.</i> ; Yuce, Mehmet <i>Monash Univ.</i>	08:30-08:45 FrAT11.1 Improved Decoding of Attentional Selection in a Cocktail Party Environment with EEG via Automatic Selection of Relevant Independent Components O'Sullivan, James* <i>Trinity College Dublin</i> ; Reilly, Richard <i>Trinity College Dublin</i> ; Lalor, Edmund <i>Trinity College Dublin</i>	FrAT11.1
09:30-09:45	FrAT9.5	A Simplified Method for Quantifying the Subject-Specific Relationship between Blood Pressure and Carotid-Femoral Pulse Wave Velocity Butlin, Mark <i>Macquarie Univ.</i> ; Hathway, Peta J <i>Macquarie Univ.</i> ; Kouchaki, Zahra <i>Macquarie Univ.</i> ; Peebles, Karen <i>Macquarie Univ.</i> ; Avolio, Alberto P* <i>Macquarie Univ.</i>	08:45-09:00 FrAT11.2 A Highly Detailed FEM Volume Conductor Model based on the ICBM152 Average Head Template for EEG Source Imaging and TCS Targeting Haufe, Stefan* <i>Berlin Institute of Technology</i> ; Huang, Yu <i>City College of New York</i> ; Parra, Lucas C. <i>City College of New York</i>	FrAT11.2
09:45-10:00	FrAT9.6	Arterial Compliance Probe for Local Blood Pulse Wave Velocity Measurement PM, Nabeel* <i>IITMADRAS</i> ; Joseph, Jayaraj <i>HTIC, Indian Institute of Technology Madras</i> ; Sivaprakasam, Mohanasankar <i>Indian Institute of Technology Madras</i>	09:00-09:15 FrAT11.3 Seizure Prediction using Polynomial SVM Classification Zhang, Z. <i>Univ. of Minnesota</i> ; Parhi, K.* <i>Univ. of Minnesota</i>	FrAT11.3
FrAT10: 08:30-10:00	Amber 7	6.19 Rehabilitation III (Oral Session) Co-Chair: Sanguineti, Vittorio <i>University of Genoa</i>	09:15-09:30 FrAT11.4 MR-Compatible Hand Exoskeleton for Monitoring Brain Activity during Active Assistance Kim, Sangjoon <i>Jonathan KAIST</i> ; Kim, Jung* <i>Korea Advanced Institute of Science and Technology</i>	FrAT11.4
08:30-08:45	FrAT10.1	A Novel Method for Quantifying Arm Motion Similarity Li, Zhi* <i>Duke Univ.</i> ; Hauser, Kris <i>Duke Univ.</i> ; Roldan, Jay Ryan <i>Univ. of California, Santa Cruz</i> ; Milutinovic, Dejan <i>UC Santa Cruz</i> ; Rosen, Jacob <i>Univ. of California - Santa Cruz</i>	09:30-09:45 FrAT11.5 Recovering HRFs from Overlapping ROIs in FMRI Data using Thresholding Correlations for Sparse Dictionary Learning Shah, Adnan* <i>Univ. of Melbourne</i> ; Khalid, Muhammad Usman <i>NICTA and The Australian National Univ.</i> ; Seghouane, Abd-krim <i>The Univ. of Melbourne</i>	FrAT11.5
08:45-09:00	FrAT10.2	Kinect One-Based Assessment of Upper-Limb Functionality in Post-Stroke Patients: A Comparison with Clinical Scales Scano, Alessandro* <i>National Research Council - Institute of Industrial Technologies</i> ; Caimmi, Marco <i>ITIA-CNR and Ospedale Valduce</i> ; Chiavenna, Andrea <i>National Research Council of Italy</i> ; Malosio, Matteo <i>CNR</i> ; Molinari Tosatti, Lorenzo <i>CNR - National Research Council</i>	09:45-10:00 FrAT11.6 Distinction of Individual Finger Responses in Somatosensory Cortex using ECoG High-Gamma Activation Mapping Prueckl, Robert* <i>g.tec Medical Engineering GmbH</i> ; Kapeller, Christoph <i>g.tec Medical Engineering GmbH</i> ; Kamada, Kyousuke <i>Asahikawa Medical Univ.</i> ; Takeuchi, Fumiya <i>Asahikawa Medical Univ.</i> ; Ogawa, Hiroshi <i>Asahikawa Medical Univ.</i> ; Scharinger, Josef <i>Dept. of Computational Perception, Johannes Kepler Univ.</i> ; Guger, Christoph <i>g.tec Medical Engineering GmbH</i>	FrAT11.6
09:00-09:15	FrAT10.3	Development of the RT-GAIT, a Real-Time Feedback Device to Improve Gait of Individuals with Stroke Hegde, Nagaraj* <i>The Univ. of Alabama</i> ; Fulk, George <i>Clarkson Univ.</i> ; Sazonov, Edward <i>Univ. of Alabama</i>	FrAT12: 08:30-10:00 Suite 5 8.11 Tactile Displays and Perception (Oral Session) Chair: Noh, Yohan <i>King's College London</i> Co-Chair: Scilingo, Enzo Pasquale <i>University of Pisa</i>	
09:15-09:30	FrAT10.4	Effect of Interface Type in the VR-Based Acquisition of Pedestrian Skills in Persons with ASD Saiano, Mario <i>Univ. of Genoa</i> ; Garbarino, Eleonora <i>ASL3 Genovese</i> ; Lumachi, Simonetta <i>Philos Counseling Academy</i> ; Solari, Silvano <i>Univ. of Genoa</i> ; Sanguineti, Vittorio* <i>Univ. of Genoa</i>	08:30-08:45 FrAT12.1 Study on the Human Perception of Incipient and Overall Slippages using A 2D FE Fingertip Model Wang, Zhongkui* <i>Ristumeikan Univ.</i> ; Katudampe Vithanage, Damith Suresh <i>Chaturanga Ristumeikan Univ.</i> ; Hirai, Shinichi <i>Ristumeikan Univ.</i>	FrAT12.1
09:30-09:45	FrAT10.5	Gait Generation for Powered Hip-Ankle-Linkage-Orthosis Lee, Jaeryoung* <i>Chubu Univ.</i> ; Mizumoto, Ryota <i>Nagoya Univ.</i> ; Obinata, Goro <i>Chubu Univ.</i> ; Genda, Eiichi <i>Minami Seikyo Hospital</i> ; Stefanov, Dimitar <i>Middlesex Univ. London</i> ; Aoki, Hirofumi <i>Nagoya Univ.</i> ; Pei, Yanling <i>Chubu Univ.</i>	08:45-09:00 FrAT12.2 Human Precision Manipulation Workspace: Effects of Object Size and Number of Fingers Used Bullock, Ian* <i>Yale Univ.</i> ; Feix, Thomas <i>Yale</i> ; Dollar, Aaron <i>Yale Univ.</i>	FrAT12.2
09:45-10:00	FrAT10.6	Smart Rehabilitation Garment for Posture Monitoring Wang, Qi* <i>Tech. Univ. of Eindhoven</i> ; Chen, Wei <i>Eindhoven Univ. of Tech.</i> ; Timmermans, Annick A.A. <i>Hasselt Univ.</i> ; Karachristos, Christopher <i>Dept. of Industrial Design, Eindhoven Univ. of Technol.</i> ; Martens, Jean-Bernard <i>Eindhoven Univ. of Tech.</i> ; Markopoulos, Panos <i>Eindhoven Univ. of Tech.</i>	09:00-09:15 FrAT12.3 An Ergonomic Handheld Ultrasound Probe Providing Contact Forces and Pose Information Noh, Yohan* <i>King's College London</i> ; Housden, Richard James <i>King's College London</i> ; Gomez, Alberto <i>King's College London</i> ; Knight, Caroline <i>King's College London</i> ; Garcia, Francesca <i>King's College London</i> ; Liu, Hongbin <i>Kings College London</i> ; Razavi, Reza <i>King's College London</i> ; Rhode, Kawal <i>King's College London</i> ; Althoefer, Kaspar <i>King's College London</i>	FrAT12.3
			09:15-09:30 FrAT12.4 Electrodermal Activity Analysis during Affective Haptic Elicitation Greco, Alberto* <i>Univ. of Pisa</i> ; Valenza, Gaetano <i>Univ. of Pisa-MGH-Harvard Medical School</i> ; Nardelli, Mimma <i>Univ. of Pisa</i> ; Bianchi, Matteo <i>Univ. of Pisa</i> ; Lanata', Antonio <i>Univ. of Pisa</i> ; Scilingo, Enzo Pasquale <i>Univ. of Pisa</i>	FrAT12.4

- 09:30-09:45 FrAT12.5
Micro-Needle Electro-Tactile Display
 Tezuka, Mayuko* *Keio Univ.*; Kitamura, Norihide *Keio Univ.*;
 Miki, Norihisa *Keio Univ.*
- 09:45-10:00 FrAT12.6
Rotational Ranges of Human Precision Manipulation When Grasping Objects with Two to Five Digits
 Feix, Thomas* *Yale*; Bullock, Ian *Yale Univ.*; Gloumakov, Yuri *Yale Univ.*; Dollar, Aaron *Yale Univ.*
- FrAT16: 08:30-10:00 White 2
4.7 Medical Device Modeling (Oral Session)
Chair: Husar, Peter *Ilmenau University of Technology*
Co-Chair: Maharbiz, Michel *University of California, Berkeley*
- 08:30-08:45 FrAT16.1
Finite-Element-Modeling of Egg White as a Substitute for Tissue Coagulation during Bipolar Radiofrequency-Induced Thermofusion
 Wagenpfeil, J.* *Univ. of Stuttgart*; Schöllig, C. *Inst. for System Dynamics*; Volker, M. *ERBE Elektromedizin*; Nold, B. *ERBE Elektromedizin*; Ederer, M. *Inst. for System Dynamics, Univ. of Stuttgart*; Neugebauer, A. *ERBE Elektromedizin*; Rothmund, R. *Univ. Hospital Tübingen*; Krämer, B. *Univ. Hospital Tübingen*; Schwentner, C. *Univ. Hospital Tübingen*; Schenk, M. *Univ. Hospital Tübingen*; Wallwiener, D. *Univ. Hospital Tübingen*; Stenzl, A. *Univ. Hospital Tübingen*; Enderle, M. *ERBE Elektromedizin*; Sawodny, O. *Inst. for System Dynamics, Univ. of Stuttgart*; Feuer, R. *Univ. of Stuttgart*
- 08:45-09:00 FrAT16.2
Analysis of Power Deposition and Temperature Rise Due to Presence of an Implant Inside a 1.5 T MRI Coil
 Kozlov, Mikhail* *Max Planck Institute for Human Cognitive and Brain Sciences*; Schaeffers, Gregor *MR.comp GmbH*
- 09:00-09:15 FrAT16.3
Modeling the Impact of Spinal Cord Stimulation Paddle Lead Position on Impedance, Stimulation Threshold, and Activation Region
 Min, Xiaoyi* *St. Jude Medical, Inc.*;
 Kent, Alexander R. *St. Jude Medical, Inc.*
- 09:15-09:30 FrAT16.4
Unintentional Heating at Implants When using Electrosurgery
 Pettersen, Fred Johan* *Oslo Univ. Hospital HF, Oslo and Univ. of Oslo*; Martinsen, Tormod *Oslo Univ. Hospital HF*; Høgetveit, Jan Olav *Oslo Univ. Hospital*; Martinsen, Ørjan G *Univ. of Oslo*
- 09:30-09:45 FrAT16.5
Fast and Stable Guidewire Simulator for Minimally Invasive Vascular Surgery
 Gao, Zhan-Jie *Institute of Automation Chinese Academy of Science*; Xie, Xiao-Liang *Chinese Academy of Sciences*; Bian, Gui-Bin *Institute of Automation, Chinese Academy of Sciences*; Hao, Jian-Long *Institute of Automation Chinese Academy of Sciences*; Feng, Zhen-Qiu *Institute of Automation, Chinese Academy of Sciences*; Hou, Zeng-Guang* *Institute of Automation, Chinese Academy of Sciences*
- 09:45-10:00 FrAT16.6
Design of Site-Directed Magnetic Targeting System in Acute Spinal Cord Injury
 Zhang, Guanghao *Institute of Electrical Engineering, Chinese Academy of Sciences*; Wang, Aihua *Chinese Academy of Sciences*; Zhang, Cheng *Chinese Academy of Sciences, Beijing*; Wu, Changzhe *Chinese Academy of Sciences*; Huo, Xiaolin* *Chinese Academy of Sciences*
- FrAT17: 08:30-10:00 Space 1
1.27 Biomedical Signal Classification II: Cardiovascular Applications (Oral Session)
Chair: Yana, Kazuo *Hosei University*
- 08:30-08:45 FrAT17.1
Sudden Cardiac Arrest Risk Stratification based on 24-hour Holter ECG Statistics
 Kasahara, Keisuke *Hosei Univ.*; Shiobara, Masahito *Hosei Univ. Graduate school*; Nakamura, Saya *Hosei Univ. Graduate School*; Yamashiro, Koichiro *Hosei Univ.*; Yana, Kazuo* *Hosei Univ.*; Ono, Takuya *Nippon Medical School*
- 08:45-09:00 FrAT17.2
Ventricular Ectopic Beats Classification using Sparse Representation and Gini Index
 Baali, Hamza *International Islamic Univ. Malaysia*;
 Mesbah, Mostefa* *Univ. of Queensland*
- 09:00-09:15 FrAT17.3
A Supervised Learning Approach for the Robust Detection of Heart Beat in Plethysmographic Data
 Grisan, Enrico* *Univ. of Padova*; Cantisani, Giorgia *Univ. of Padova*; Tarroni, Giacomo *Univ. of Padova*; Yoon, Seung Keun *Samsung Advanced Institute of Technology*; Rossi, Michele *Univ. of Padova*
- 09:15-09:30 FrAT17.4
Large-Scale Physiological Waveform Retrieval via Locality-Sensitive Hashing
 Kim, Yongwook Bryce* *Massachusetts Institute of Technology*;
 O'Reilly, Una-May *Massachusetts Institute of Technology*
- 09:30-09:45 FrAT17.5
A Morphological Classification Algorithm of ST Segment based on Multi-Feature
 Fan, Shuqiong *Shenzhen Institutes of Advanced Technology*;
 Miao, Fen Key *Laboratory for Health Informatics of the Chinese Academy of Ma, Ruiqing Shenzhen Institutes of Advanced Technology, Chinese Academy of Science*; Li, Ye* *Shenzhen Institutes of Advanced Technology, Chinese Academy of Science*; Huang, Xuhui *Nanchang Univ.*
- 09:45-10:00 FrAT17.6
ECG Biometric Identification: A Compression based Approach
 Bras, Susana* *Univ. de Aveiro*; Pinho, Armando *IEETA, DETI, Univ. de Aveiro*
- FrAT18: 08:30-10:00 Space 2
1.28 Signal Processing in Physiological Systems VI: Fetal and Neonatal (Oral Session)
Chair: Signorini, Maria G. *Politecnico di Milano*
Co-Chair: Van Huffel, Sabine *Katholieke Universiteit Leuven*
- 08:30-08:45 FrAT18.1
Fetal Heart Rate Feature Extraction from Cardiotocographic Recordings through Autoregressive Model's Power Spectral and Pole-Based Analysis
 Illanes-Manriquez, Alfredo *Univ. Austral de Chile*;
 Haritopoulos, Michel* *Institute PRISME*
- 08:45-09:00 FrAT18.2
Monitoring the Fetal Heart Rate Variability during Labor
 Moslem, Bassam* *Hariri Canadian Univ.*; Ali, Mohydeen *Lebanese Univ.*; Bazzi, Oussama *Lebanese Univ.*
- 09:00-09:15 FrAT18.3
Electrohysterographic Detection of Uterine Contractions in Term Pregnancy
 Bajlekov, Galin Ivanov* *Eindhoven Univ. of Technology*;
 Rabotti, Chiara *Eindhoven Univ. of Technology*; Oei, S. Guid *Maxima Medisch Centrum, Veldhoven*; Mischi, Massimo *Eindhoven Univ. of Technology*
- 09:15-09:30 FrAT18.4
Uncovering Statistical Features of Bradycardia Severity in Premature Infants using a Point Process Model
 Gee, Alan* *Hansjörg Wyss Institute at Harvard Univ.*; Barbieri, Riccardo *MGH-Harvard Medical School-MIT*; Paydarfar, David *Univ. of Massachusetts medical School*; Indic, Premananda *Univ. of Massachusetts Medical School*
- 09:30-09:45 FrAT18.5
Improvement of an Automated Neonatal Seizure Detector using a Post-Processing Technique
 Ansari, Amir Hossein* *KULeuven*; Matic, Vladimir *Dept. of Electrical Engineering (ESAT-SCD), Katholieke Univ.*; De Vos, Maarten *Univ. of Oxford*; Naulaers, Gunnar *Univ. Hospitals Leuven*; Cherian, Perumpillichira Joseph *Clinical Neurophysiology, Dept. of Neurology, Erasmus MC, Rotterdam*; Van Huffel, Sabine *Katholieke Univ. Leuven*

09:45-10:00	FrAT18.6	Assessment of Quality of ECG for Accurate Estimation of Heart Rate Variability in Newborns Gholinezhadasnefistani, Shima* <i>Univ. College Cork</i> ; Temko, Andriy <i>Univ. College Cork</i> ; Stevenson, Nathan <i>Univ. College Cork</i> ; Boylan, Geraldine <i>Univ. College Cork</i> ; Lightbody, Gordon <i>Univ. College Cork</i> ; Marnane, Liam <i>Univ. College Cork</i>	09:00-09:15	FrAT20.3	Toad's Egg-Like Cultivation Process for Forming Microcarriers from Nanofibrous Hydrogel Higashi, Kazuhiko* <i>Keio Univ.</i> ; Miki, Norihisa <i>Keio Univ.</i>
FrAT19: 08:30-10:00	Space 3	2.21 Optical Imaging (Oral Session) Chair: Dacso, Clifford C <i>Baylor College of Medicine</i> Co-Chair: Tong, Shanbao <i>Shanghai Jiao Tong University</i>	09:15-09:30	FrAT20.4	Monitoring Time Course of Human Whole Blood Coagulation using a Microfluidic Dielectric Sensor with a 3D Capacitive Structure Maji, Debnath <i>Case Western Reserve Univ.</i> ; Suster, Michael <i>Case Western Reserve Univ.</i> ; Stavrou, Evi <i>Case Western Reserve Univ.</i> ; Gurkan, Umut A. <i>Case Western Reserve Univ.</i> ; Mohseni, Pedram* <i>Case Western Reserve Univ.</i>
08:30-08:45	FrAT19.1	Rapid Three Dimensional Two Photon Neural Population Scanning Schuck, Renaud* <i>Imperial College London</i> ; Quicke, Peter <i>Imperial College London</i> ; Copeland, Caroline <i>Imperial College London</i> ; Garasto, Stefania <i>Imperial College London</i> ; Annecchino, Luca Antonello <i>Imperial College London</i> ; Hwang, June Kyu <i>Imperial College London</i> ; Schultz, Simon R <i>Imperial College London</i>	09:30-09:45	FrAT20.5	Manufacturing of Microcirculation Phantoms using Rapid Prototyping Technologies Buchoux, Anthony* <i>The Univ. of Edinburgh</i> ; Valluri, Prashant <i>The Univ. of Edinburgh</i> ; Smith, Stewart <i>The Univ. of Edinburgh</i> ; Stokes, Adam A. <i>The Univ. of Edinburgh</i> ; Hoskins, Peter <i>The Univ. of Edinburgh</i> ; Sboros, Vassilis <i>Heriot Watt Univ.</i>
08:45-09:00	FrAT19.2	Low-Cost Surface Reconstruction for Aesthetic Results Assessment and Prediction in Breast Cancer Surgery Lacher, Rene Michel* <i>Centre for Medical Image Computing, Univ. College London</i> ; Hipwell, John <i>UCL</i> ; Williams, Norman R. <i>Clinical Trials Group, Univ. College London</i> ; Keshtgar, Mohammed <i>Royal Free Hospital and Univ. College London (UCL)</i> ; Hawkes, David J <i>Univ. College London</i> ; Stoyanov, Danail <i>Univ. College London</i>	09:45-10:00	FrAT20.6	Controlled Thermal-Sensitive Liposomes Release on a Disposable Microfluidic Device Meng, Long* <i>Shenzhen Institutes of Advanced Technology, Chinese Academy of S</i> ; Deng, Zhiting <i>Shenzhen Institutes of Advanced Technology, Chinese Academy of S</i> ; Niu, Lili <i>Shenzhen Institute of Advanced Technology, Chinese Academy of Scie</i> ; Cai, Feiyan <i>Shenzhen Institutes of Advanced Technology, Chinese Academy of S</i> ; Zheng, Hairong <i>Shenzhen Inst of Advanced Tech</i>
09:00-09:15	FrAT19.3	Compact Laser Illumination System for Endoscopic Interventions Blase, Bastian* <i>Tech. Univ. Berlin, Dept. of Electromechanical a</i>	FrBPoT1: 10:00-11:30	Gold Room	1.49 Signal Processing in Physiological Systems I (Poster Session)
09:15-09:30	FrAT19.4	Spectral Study of Metabolism-Based Autofluorescence and White-Light Reflectance for Endoscopic Tumor Imaging Ozaki, Masashi <i>Shizuoka Univ.</i> ; Kagawa, Keiichiro* <i>Shizuoka Univ.</i> ; Arimoto, Hidenobu <i>Natl Inst of Advd Industrial Sci & Tech</i> ; Kominami, Yoko <i>Hiroshima Univ.</i> ; Sanomura, Yoji <i>Dept. of Endoscopy, Hiroshima Univ.</i> ; Yoshida, Shigeto <i>Hiroshima General Hospital of West Japan Railway Company</i> ; Seo, Min-Woong <i>Shizuoka Univ.</i> ; Kawahito, Shoji <i>Shizuoka Univ.</i> ; Tanaka, Shinji <i>Hiroshima Univ. Hospital</i>	10:00-11:30	FrBPoT1.1	Analysis of Uterine Activity in Nonpregnant Women by Electrohysterography: A Feasibility Study Rabotti, Chiara* <i>Eindhoven Univ. of Technology</i> ; Sammali, Federica <i>Eindhoven Univ. of Technology</i> ; Kuijsters, Nienke <i>Pertronella Maria Catharina Hospital Eindhoven</i> ; Kortenhorst, Madeleine Susanne <i>Quirine Catharina Hospital Eindhoven</i> ; Schoot, Benedictus Christiaan <i>Catharina Hospital Eindhoven</i> ; Mischi, Massimo <i>Eindhoven Univ. of Technology</i>
09:30-09:45	FrAT19.5	Self-Contained Diffuse Optical Imaging System for Real-Time Detection and Localization of Vascular Occlusions Pollonini, Luca* <i>Univ. of Houston</i> ; Forseth, Kiefer <i>Univ. of Texas Medical School at Houston</i> ; Dacso, Clifford C <i>Baylor College of Medicine</i> ; Parazyński, Scott <i>Arizona State Univ.</i> ; Friedman, Jeffrey <i>Houston Methodist Hospital</i>	10:00-11:30	FrBPoT1.2	Real-Time Feedback based Control of Cardiac Restitution using Optical Mapping Kulkarni, Kanchan <i>Univ. of Minnesota</i> ; Tolkacheva, Elena* <i>Univ. of Minnesota</i>
09:45-10:00	FrAT19.6	The Cerebral Blood Flow Response Dependency on Stimulus Pulse Width is Affected by Stimulus Current Amplitude – A Study of Activation Flow Coupling Zhao, Linna <i>Shanghai Jiao Tong Univ.</i> ; Li, Yao* <i>Shanghai Jiao Tong Univ.</i> ; Li, Hangdao <i>Shanghai Jiao Tong Univ.</i> ; Omire-Mayor, Daryl <i>School of Biomedical Engineering, Science & Health Systems, Drex</i> ; Tong, Shanbao <i>Shanghai Jiao Tong Univ.</i>	10:00-11:30	FrBPoT1.3	Heart Rate Calculation from Ensemble Brain Wave using Wavelet and Teager-Kaiser Energy Operator Jayaraman, Srinivasan* <i>TATA Consultancy Services</i> ; V, Adithya <i>TATA Consultancy Services</i>
FrAT20: 08:30-10:00	Space 4	3.7 Microfluidic Techniques, Methods and Systems I (Oral Session) Co-Chair: Ahluwalia, Arti <i>Pisa University</i>	10:00-11:30	FrBPoT1.4	Stream Computing for Biomedical Signal Processing: A QRS Complex Detection Case-Study Murphy, Brian Michael* <i>Univ. College Cork</i> ; O'Driscoll, Cillian <i>Univ. College Cork</i> ; Boylan, Geraldine <i>Univ. College Cork</i> ; Lightbody, Gordon <i>Univ. College Cork</i> ; Marnane, Liam <i>Univ. College Cork</i>
08:30-08:45	FrAT20.1	Microfluidic Paper-Based Analytical Devices for Colorimetric Detection of Urinary Tract Infection Biomarkers on Adult Diapers Chen, Chaohao <i>Faculty of Technology and Maritime Sciences, Buskerud and Vestfo</i> ; Dong, Tao* <i>Buskerud and Vestfold Univ. College - HBV, TekMar, IMST</i>	10:00-11:30	FrBPoT1.5	Multi-Channel Audio-Based Estimation of the Pre-Ejection Period Paiva, Rui Pedro* <i>Univ. of Coimbra</i> ; Sapata, Tiago <i>CISUC, Dept. of Informatics Engineering, Univ. of Coim</i> ; Henriques, Jorge <i>Univ. of Coimbra - NIF</i> ; Quintal, Isabel <i>Centro Hospitalar de Coimbra</i> ; Baptista, Romeu <i>Centro Hospitalar de Coimbra</i> ; Gonçalves, Lino <i>Centro Hospitalar de Coimbra</i> ; de Carvalho, Paulo <i>Univ. of Coimbra - NIF</i>
08:45-09:00	FrAT20.2	Development of Hydrogel Microtubes for Enclosing and Culturing Microbe in Any Environment Ogawa, Miho* <i>Keio Univ.</i> ; Higashi, Kazuhiko <i>Keio Univ.</i> ; Miki, Norihisa <i>Keio Univ.</i>			

- 10:00-11:30 FrBPoT1.6
A Low-Complex Multi-Channel Methodology for Noise Detection in Phonocardiogram Signals
 Nunes, Diogo *Univ. of Coimbra*; Leal, Adriana* *Univ. of Coimbra*; Couceiro, Ricardo *Univ. of Coimbra*; Henriques, Jorge *Univ. of Coimbra - NIF*; Mendes, Luis *Univ. of Coimbra*; de Carvalho, Paulo *Univ. of Coimbra - NIF*; Teixeira, César *Univ. of Coimbra*
- 10:00-11:30 FrBPoT1.7
QRS Complex Detection in ECG Signal for Wearable Devices
 Arefin, M. Riadh *Univ. of North Dakota*; Tavakolian, Kouhyar *Assistant Professor*; Fazel-Rezai, Reza* *Univ. of North Dakota*
- 10:00-11:30 FrBPoT1.8
Heart Rate Variability in Cyclic Alternating Pattern during Sleep in Healthy and Nocturnal Front Lobe Epilepsy Patients
 Dorantes Méndez, Guadalupe* *Univ. Autónoma de San Luis Potosi*; Mendez, Martin Oswaldo *Univ. Autónoma de San Luis Potosi*; Alba, Alfonso *Univ. Autónoma de San Luis Potosi*; Gonzalez, Jose Saul *Univ. Autónoma de San Luis Potosi*; Parrino, Liborio *Sleep Disorders Centre, Dept. of Neurology, Univ. of P*; Milioli, Giulia *Sleep Disorders Centre, Dept. of Neurology, Univ. of P*
- 10:00-11:30 FrBPoT1.9
Is 50 Hz High Enough ECG Sampling Frequency for Accurate HRV Analysis?
 Mahdiani, Shadi* *Tampere Univ. of Tech.*; Jeyhani, Vala *Tampere Univ. of Tech.*; Peltokangas, Mikko *Tampere Univ. of Tech.*; Vehkaoja, Antti *Tampere Univ. of Tech.*
- 10:00-11:30 FrBPoT1.10
Comparison of HRV Parameters Derived from Photoplethysmography and Electrocardiography Signals
 Jeyhani, Vala* *Tampere Univ. of Tech.*; Mahdiani, Shadi *Tampere Univ. of Tech.*; Peltokangas, Mikko *Tampere Univ. of Tech.*; Vehkaoja, Antti *Tampere Univ. of Tech.*
- 10:00-11:30 FrBPoT1.11
Breathing Sounds Characteristics Correlates with Structural Changes of Upper Airway in Obstructive Sleep Apnea
 Moussavi, Zahra* *Univ. of Manitoba*; Elwali, Ahmed Khalil *Univ. of Manitoba*; Soltanzadeh, Ramin *Univ. of Manitoba*; MacGregor, Cameron Andrew *Univ. of Manitoba*; Lithgow, Brian *Univ. of Manitoba*
- 10:00-11:30 FrBPoT1.12
Identifying Stable Phase Coupling Associated with Cerebral Autoregulation using the Synchrosqueezed Cross-Wavelet Transform and Low Oscillation Morlet Wavelets
 Addison, Paul* *Medtronic*
- 10:00-11:30 FrBPoT1.13
Non-Invasive Measurement of Blood Pressure – Why We Should Look at BP Traces Rather than Listen to Korotkoff Sounds
 Celler, Branko George* *Univ. of New South Wales*; Basilakis, Jim *Univ. of Western Sydney*; Goozee, Kathryn *Macquarie Univ., Faculty of Medical Science*; Ambikairajah, E *Univ. of New South Wales*
- 10:00-11:30 FrBPoT1.14
An Improved Artifact Removal Algorithm for Continuous Cardiac Output and Blood Pressure Recordings
 Tronstad, Christian* *National Hospital of Norway*; Omenàs, Ivar *Nagelgaard Dept. of Acute Medicine, Oslo Univ. Hospital, Oslo, No*; Rosseland, Leiv Arne *Dept. of Acute Medicine, Oslo Univ. Hospital and Univ.*
- 10:00-11:30 FrBPoT1.15
Effects of Cuff Inflation and Deflation on Pulse Transit Time Measured from ECG and Multi-Wavelength PPG
 Liu, Jing *The Chinese Univ. of Hong Kong*; Li, Yao *Chinese Univ. of Hong Kong*; Ding, Xiao-Rong *The Chinese Univ. of Hong Kong*; Dai, Wenxuan *Chinese Univ. of Hong Kong*; Zhang, Yuan-Ting* *The Chinese Univ. of Hong Kong*
- 10:00-11:30 FrBPoT1.16
Recording System and Data Fusion Algorithm for Enhancing the Estimation of the Respiratory Rate from Photoplethysmogram
 Cernat, Roxana Alexandra* *Univ. Politehnica of Bucharest*; Ciorecan, Silvia Ionela *Univ. Politehnica of Bucharest*; Ungureanu, Constantin *Eindhoven Univ. of Technology*; Arends, Johan B.A.M. *Epilepsy Center Kempenhaeghe*; Strungaru, Rodica *Politehnica Univ. of Bucharest*; Ungureanu, G. Mihaela *Politehnica Univ. of Bucharest*
- 10:00-11:30 FrBPoT1.17
Breathing Rate Estimation during Sleep using Audio Signal Analysis
 Dafna, E. *Ben-Gurion Univ. of the Negev*; Rosenwein, T. *Dept. of Biomedical Engineering, Ben-Gurion Univ. of t*; Tarasiuk, A. *Ben-Gurion Univ.*; Zigel, Y.* *Ben-Gurion Univ. of the Negev*
- 10:00-11:30 FrBPoT1.18
Rapid and Stable Measurement of Respiratory Rate from Doppler Radar Signals using Time Domain Autocorrelation Model
 Sun, Guanghao* *Tokyo Metropolitan Univ.*; Matsui, Takemi *Tokyo Metropolitan Univ.*
- 10:00-11:30 FrBPoT1.19
Real-Time Obstructive Sleep Apnea Detection from Frequency Analysis of EDR and HRV using Lomb Periodogram
 Fan, Shu-Han *National Chiao Tung Univ.*; Chou, Chia-Ching *National Chiao Tung Univ.*; Chen, Wei-Chen *National Chiao Tung Univ.*; Fang, Wai-Chi* *National Chiao Tung Univ.*
- 10:00-11:30 FrBPoT1.20
Automatic Characterization of Sleep Need Dissipation Dynamics using a Single EEG Signal
 Garcia-Molina, Gary Nelson* *Philips Research North America*; Bellesi, Michele *Univ. of Wisconsin-Madison*; Riedner, Brady *Univ. of Wisconsin*; Pastoor, Sander *Philips Research*; Pfundtner, Stefan *Philips Research*; Tononi, Giulio *Univ. of Wisconsin*
- 10:00-11:30 FrBPoT1.21
Online Wireless Sleep Analysis and Auditory Sleep Stimulation
 Virkkala, Jussi* *Finnish Institute of Occupational Health*; Leminen, Miika *Helsinki Univ.*; Saure, Emma *Helsinki Univ.*; Huotilainen, Minna *Finnish Institute of Occupational Health*; Paunio, Tiina *Finnish Institute of Occupational Health*
- 10:00-11:30 FrBPoT1.22
Modeling Sleep Apnea Severity using Bioimpedance Measurements
 Gavrilovic, B. *Univ. of Toronto/Toronto Rehabilitation Institute*; Popovic, M.R. *Univ. of Toronto*; Yadollahi, A.* *Univ. of Toronto*
- 10:00-11:30 FrBPoT1.23
Quantification of Muscle Activity during Sleep for Patients with Neurodegenerative Diseases
 Hanif, Umaer* *Technical Univ. of Denmark*; Trap, Lotte *Technical Univ. of Denmark*; Jennum, Poul *Univ. of Copenhagen, Demnar*; Zoetmulder, Marielle *Danish Centre for Sleep Medicine*; Sorensen, Helge B D *Technical Univ. of Denmark*
- 10:00-11:30 FrBPoT1.24
A New Method for Attenuation of Respiration Artifacts in Electrocardiographic (ECG) Signals
 Komorowski, D., W.* *Silesian Univ. of Technology*; Tkacz, E. *Silesian Univ of Tech, Faculty of Biomedical Engineering*
- 10:00-11:30 FrBPoT1.25
Multi-Sources Data Analysis with Sympatho-Vagal Balance Estimation Toward Early Bruxism Episodes Detection
 Kostka, P.S.* *Found. for Cardiac Surgery Dev.*; Tkacz, Ewaryst *Silesian Univ of Tech, Faculty of Biomedical Engineering*
- FrBPoT2: 10:00-11:30 Gold Room
1.50 Signal Processing in Physiological Systems II (Poster Session)
- 10:00-11:30 FrBPoT2.1
An Open-Source Toolbox for Standardized use of PhysioNet Sleep EDF Expanded Database
 Imtiaz, Syed Anas* *Imperial College London*; Rodriguez-Villegas, Esther *Imperial College London*

- 10:00-11:30 FrBPoT2.2
SoC-Based Architecture for Biomedical Signal Processing
 Gutiérrez, R.* *Univ. of Alcalá*; Hernández, Á. *Univ. of Alcalá*;
 García, J.J. *Univ. of Alcalá*; Marnane, L. *Univ. College Cork*
- 10:00-11:30 FrBPoT2.3
Non-Parametric Frequency Response Function Tissue Modeling in Bipolar Electrosurgery
 Barbé, Kurt* *Vrije Univ. Brussel*; Ford, Carolyn *Covidien*; Bonn, Kenlyn *Covidien*; Gilbert, James *Covidien*
- 10:00-11:30 FrBPoT2.4
Field Programmable Gate Arrays Implementation of Dual Tree Complex Wavelet Transform
 Canbay, Ferhat* *Yıldız Technical Univ.*; Levent, Vecdi Emre *Ozyegin Univ.*; Serbes, Gorkem *Yildiz Technical Univ.*; Goren, Sezer *Yeditepe Univ.*; Aydin, Nizamettin *Yildiz Technical Univ.*
- 10:00-11:30 FrBPoT2.5
Recognizing Emotions from EEG Subbands using Wavelet Analysis
 Candra, Henry* *Univ. of Technology Sydney*; Yuwono, Mitchell *Univ. of Technology Sydney*; Handojoseno, Aluysius Maria *Ardi Univ. of Technology, Sydney*; Chai, Rifai *Univ. of Technology, Sydney*; Su, Steven *Weidong Univ. of Technology, Sydney*; Nguyen, Hung T. *Univ. of Technology, Sydney*
- 10:00-11:30 FrBPoT2.6
Detection of Stress/anxiety State from EEG Features during Video Watching
 Giannakakis, Giorgos* *Institute of Computer Science (ICS), Foundation for Research and*; Grigoriadis, Dimitris *Dept. of Informatics Engineering, Technological Educational*; Tsiknakis, Manolis *ICS-FORTH*
- 10:00-11:30 FrBPoT2.7
Experimental Evidence for the Effects of the Demand-Control Model on the Cognitive Arousal: An EEG based Study
 Subhani, Ahmad Rauf *Univ. Teknologi Petronas*; Malik, Aamir Saeed* *Univ. Teknologi Petronas*; Kamel, Nidal *Technical Univ. of Petronas*; Saad, Naufal *Univ. Teknologi Petronas*; Nandagopal, Nanda *Univ. of South Australia*
- 10:00-11:30 FrBPoT2.8
Recognition and Regionalization of Emotions in the Arousal-Valence Plane
 Bustamante, Paola Andrea* *Univ. Nacional de San Juan*; López, Natalia M *Univ. Nacional de San Juan*; Perez Berenguer, Maria Elisa *UNSJ*; Quintero Montoya, Olga Lucia *Univ. EAFIT*
- 10:00-11:30 FrBPoT2.9
Brain Activities during Synchronized Tapping Task
 Murakami, A.* *Doshisha Univ.*; Hiroyasu, T. *Doshisha Univ.*; Goto, M. *Doshisha Univ.*; Yokouchi, H. *Doshisha Univ.*
- 10:00-11:30 FrBPoT2.10
Retrieving the Hemodynamic Response Function in Resting State fMRI: Methodology and Application
 Wu, Guorong *Faculty of Psychology and Educational Sciences, Dept. of Da*; Deshpande, Gopikrishna *AU MRI Research Center*; Laureys, Steven *Cyclotron Research Center, Univ. of Liege in Belgium*; Marinazzo, Daniele* *Faculty of Psychology and Educational Sciences, Dept. of Da*
- 10:00-11:30 FrBPoT2.11
Temporal Fluctuation Analysis of Tremor Signal in Parkinson's Disease and Essential Tremor Subjects
 Thanawattano, Chusak* *National Electronics and Computer Tech. Center*; Anan, Chanawat *Chulalongkorn Univ.*; Pongthornseri, R. *National Electronics and Computer Tech. Center*; Dummin, Songphon *National Electronics and Computer Tech. Center*; Bhidayasiri, Roongroj *Chulalongkorn Univ.*
- 10:00-11:30 FrBPoT2.12
Spatial Analysis of Muscular Activation Patterns in Stroke Survivors
 Rasool, Ghulam* *Rehabilitation Institute of Chicago*; Afsharipour, Babak *Northwestern Univ.*; Suresh, Nina *Rehabilitation Institute of Chicago*; Hu, Xiaogang *Rehabilitation Institute of Chicago*; Rymer, William Zev *Northwest. & Rehab Inst of Chicago*
- 10:00-11:30 FrBPoT2.13
Assessment of the Activation Patterns of the Muscles Involved in the FR Test in Diabetic Neuropathic Patients
 Maranesi, Elvira* *Univ. Politecnica delle Marche*; Di Nardo, Francesco *Polytechnic Univ. of Marche*; Ghetti, Giacomo *Giuseppe Posture and Movement Analysis Laboratory, INRCA Geriatric Hospit*; Mercante, Oriano *Posture and Movement Analysis Laboratory, INRCA Geriatric Hospit*; Rabini, Rosa Anna *Diabetology Dept., INRCA Geriatric Hospital*; Burattini, Laura *Univ. Politecnica delle Marche*; Fioretti, Sandro *Univ. Politecnica delle Marche*
- 10:00-11:30 FrBPoT2.14
Evaluation of Gender-Related Differences in Co-Contraction Activity of Shank Muscles during Gait
 Mengarelli, Alessandro *Univ. Politecnica delle Marche*; Maranesi, Elvira *Univ. Politecnica delle Marche*; Barone, Vinicio *Univ. Politecnica delle Marche*; Burattini, Laura *Univ. Politecnica delle Marche*; Fioretti, Sandro *Univ. Politecnica delle Marche*; Di Nardo, Francesco* *Polytechnic Univ. of Marche*
- 10:00-11:30 FrBPoT2.15
The Occurrence Frequency: A Suitable Parameter for the Evaluation of the Myoelectric Activity during Walking
 Di Nardo, Francesco* *Polytechnic Univ. of Marche*; Agostini, Valentina *Politecnico di Torino*; Knaflitz, Marco *Politecnico di Torino*; Mengarelli, Alessandro *Univ. Politecnica delle Marche*; Maranesi, Elvira *Univ. Politecnica delle Marche*; Burattini, Laura *Univ. Politecnica delle Marche*; Fioretti, Sandro *Univ. Politecnica delle Marche*
- 10:00-11:30 FrBPoT2.16
Wearable Real-Time ECG Monitoring with Emergency Alert System for Scuba Diving
 Cibis, Tobias* *Digital Sport Group, Friedrich-Alexander Univ. Erlangen-Nü*; Groh, Benjamin *Friedrich-Alexander Univ. Erlangen-Nürnberg*; Gatermann, Heike *German Association of Sport Divers (VDST)*; Leutheuser, Heike *Digital Sports Group, Pattern Recognition Lab, Dept. of Com*; Eskofier, Bjoern M *Friedrich-Alexander-Univ. Erlangen-Nürnberg*
- 10:00-11:30 FrBPoT2.17
Muscle Fatigue Detection during Dynamic Contraction under Blood Flow Restriction: Improvement of Detection Sensitivity using Multivariable Fatigue Indices
 Ito, Kenichi* *Niigata Institute of Tech.*; Korakata, Yuki *Niigata Institute of Tech.*; Hotta, Yu *Niigata Institute of Tech.*
- 10:00-11:30 FrBPoT2.18
Effect of Muscular Fatigue on Fractal Upper Limb Coordination Dynamics and Muscle Synergies
 R. Bueno, Diana* *Univ. of Zaragoza*; Lizano, José María *Univ. of Zaragoza*; Montano Gella, Luis *Univ. of Zaragoza*
- 10:00-11:30 FrBPoT2.19
On Optimal Electrode Configuration to Estimate Hand Movements from Forearm Surface ElectroMyoGraphy
 Paleari, Marco* *Fondazione Istituto Italiano di Tecnologia*; Michela, Di Girolamo *Fondazione Istituto Italiano di Tecnologia*; Celadon, Nicolò *Fondazione Istituto Italiano di Tecnologia*; Favetto, Alain *Fondazione Istituto Italiano di Tecnologia*; Ariano, Paolo *Fondazione Istituto Italiano di Tecnologia*
- 10:00-11:30 FrBPoT2.20
Age-Related Motor Unit Remodeling in the Tibialis Anterior
 Siddiqi, Ariba* *RMIT Univ.*; Kant Kumar, Dinesh *RMIT Univ.*; Pooapadi Arjunan, Sridhar *RMIT Univ.*
- 10:00-11:30 FrBPoT2.21
Detection of the Recovery Phase of in Vivo Gastric Slow Wave Recordings
 Paskaranandavadevel, N.* *The Univ. of Auckland*; Pan, X. *Univ. of Auckland*; Du, P. *The Univ. of Auckland*; O'Grady, G. *Univ. of Auckland*; Cheng, Leo K *The Univ. of Auckland*

- 10:00-11:30 FrBPoT2.22
A System for Automated Quantification of Cutaneous Electrogastragrams
 Paskaranandavadel, Niranchan* *The Univ. of Auckland*; Bull, Simon H. *Univ. of Auckland*; Parsell, Doug *Univ. of Mississippi*; Cheng, Leo K *The Univ. of Auckland*; Abell, Thomas *The Division of Digestive Diseases, Univ. of Mississippi Me*
- 10:00-11:30 FrBPoT3.4
Smartwatch-Based Driver Alertness Monitoring with Wearable Motion and Physiological Sensor
 Lee, Boon-Giin *Keimyung Univ.*; Lee, Boon-Leng *Dept. of Electronic Engineering, Pukyong National Univ.*; Chung, Wan-Young* *Pukyong National Univ.*
- 10:00-11:30 FrBPoT2.23
Correlational Analysis of Electroencephalographic and End-Tidal Carbon Dioxide Signals during Breath-Hold Exercise
 Morelli, Maria Sole *Scuola Superiore Sant'Anna (Pisa)*; Vanello, Nicola* *Univ. of Pisa*; Giannoni, Alberto *Fondazione Gabriele Monasterio, Pisa*; Frijia, Francesca *Fondazione Gabriele Monasterio, Pisa*; Hartwig, Valentina *Univ. of Pisa*; Maestri, Michelangelo *Univ. of Pisa, Pisa*; Bonanni, Enrica *Univ. of Pisa, Pisa*; Carnicelli, Luca *Univ. of Pisa, Pisa*; Positano, Vincenzo *Fondazione G. Monasterio, CNR-Regione Toscana, Pisa, PI, Italy*; Passino, Claudio *Fondazione Gabriele Monasterio, Pisa*; Emdin, Michele *Fondazione Gabriele Monasterio, Pisa*; Landini, Luigi *Univ. of Pisa*
- 10:00-11:30 FrBPoT3.5
A Constrained Two-Layer Compression Technique for ECG Waves
 Byun, Kyungguen* *Dept. of Electrical and Electronic Engineering, Yonsei Univ.*; Song, Eunwoo *Yonsei Univ.*; Shim, Hwan *Digital Media & Communication R&D Center, Samsung Electronics Co.*; Lim, Hyungjoon *Digital Media & Communication R&D Center, Samsung Electronics Co.*; Kang, Hong-Goo *Yonsei Univ.*
- 10:00-11:30 FrBPoT2.24
Voice Quality in Patients Suffering from Bipolar Disease
 Guidi, Andrea *Univ. of Pisa*; Schoentgen, Jean L.I.S.A. *Faculté des Sciences Appliquées, Univ. Libre de Br*; Bertschy, Gilles *Dept. of Psychiatry and Mental Health, Strasbourg Univ.*; Gentili, Claudio *Univ. of Pisa*; Landini, Luigi *Univ. of Pisa*; Scilingo, Enzo *Pasquale Univ. of Pisa*; Vanello, Nicola* *Univ. of Pisa*
- 10:00-11:30 FrBPoT3.6
Human Emotion Recognition using Heart Rate Variability Analysis with Spectral Bands based on Respiration
 Valderas, María Teresa* *Zaragoza Univ. and Univ. Politècnica de Catalunya*; Bolea, Juan *Instituto de Investigación en Ingeniería de Aragón (I3A) Univ.*; Laguna, Pablo *Zaragoza Univ. and CIBER-BBN*; Vallverdu, Montserrat *Univ. Politècnica de Catalunya*; Bailon, Raquel *Univ. of Zaragoza*
- 10:00-11:30 FrBPoT2.25
Arousal Recognition System based on Heartbeat Dynamics during Auditory Elicitation
 Nardelli, Mimma* *Univ. of Pisa*; Valenza, Gaetano *Univ. of Pisa-MGH-Harvard Medical School*; Greco, Alberto *Univ. of Pisa*; Lanata', A. *Univ. of Pisa*; Scilingo, Enzo *Pasquale Univ. of Pisa*
- 10:00-11:30 FrBPoT3.7
Bayesian Fusion of Algorithms for the Robust Estimation of Respiratory Rate from the Photoplethysmogram
 Clifton, D.* *Univ. of Oxford*; Zhu, T. *Univ. of Oxford*; Pimentel, Marco A.F. *Univ. of Oxford*; Clifford, Gari *Univ. of Oxford*
- 10:00-11:30 FrBPoT2.26
Unobtrusive Heart Rate Estimation during Physical Exercise using Photoplethysmographic and Acceleration Data
 Mullan, Patrick Johannes* *Digital Sports Group, Pattern Recognition Lab, Friedrich-Alexand*; Kanzler, Christoph Matthias *Digital Sports Group, Pattern Recognition Lab, Friedrich-Alexand*; Lorch, Benedikt *Digital Sports Group, Pattern Recognition Lab, Friedrich-Alexand*; Schröder, Lea *Pattern Recognition Lab, Friedrich-Alexander-Univ. Erlange*; Winkler, Ludwig *FAU Erlangen-Nürnberg*; Laich, Larissa Heike *Univ. of Stuttgart*; Riedel, Frederik *Univ. of Stuttgart*; Richer, Robert *Friedrich-Alexander-Univ. Erlangen-Nürnberg (FAU), Germany*; Luckner, Christoph *Digital Sports Group, Pattern Recognition Lab, Friedrich-Alexand*; Leutheuser, Heike *Digital Sports Group, Pattern Recognition Lab, Dept. of Com*; Eskofier, Bjoern M *Friedrich-Alexander-Univ. Erlangen-Nürnberg*; Pasluosta, Cristian *Federico Friedrich-Alexander-Univ. Erlangen-Nürnberg*
- 10:00-11:30 FrBPoT3.8
Heart Rate Variability during Plateau Waves of Intracranial Pressure: A Pilot Descriptive Study
 Lopes Luís, Ana Isabel *Interna de Neurocirurgia do Centro Hospitalar de Lisboa Ocident*; Seromenho e Santos, Alexandra *Interna de Neurocirurgia do Centro Hospitalar de Lisboa Ocident*; Dias, Celeste *Faculty of Medicine of the Univ. of Porto*; Almeida, Rute* *Faculty of Science of the Univ. of Porto*; Rocha, Ana Paula *Univ. do Porto, Faculdade de Ciências*
- 10:00-11:30 FrBPoT3.9
Characterization and Reduction of Motion Artifacts in Photoplethysmographic Signals from a Wrist-Worn Device
 Tautan, Alexandra-Maria* *Holst Centre/imec*; Young, Alex *Holst Centre/imec*; Wentink, Eva *imec/Holst Centre*; Wieringa, Fokko van 't Hoff *Program of TNO*
- 10:00-11:30 FrBPoT3.10
Estimating Instantaneous Respiratory Rate from the Photoplethysmogram
 Kheirhah Dehkordi, Parastoo* *Univ. of British Columbia*; Garde, Ainara *Univ. of British Columbia*; Molavi, Behnam *Univ. of British Columbia*; Petersen, Christian *British Columbia Children's Hospital*; Ansermino, J. Mark *British Columbia's Children's Hospital*; Dumont, Guy *Univ. of British Columbia*
- 10:00-11:30 FrBPoT3.11
Spectral Decomposition of Pupillary Unrest using Wavelet Entropy
 Schumann, Andy* *Psychiatric Brain & Body Research Group Jena, Dept. of Psyc*; Kralisch, Caroline *Psychiatric Brain & Body Research Group Jena, Dept. of Psyc*; Bär, Karl-Jürgen *Friedrich-Schiller-Univ. of Jena*
- 10:00-11:30 FrBPoT3.12
Analysis of Sympathovagal Balance in Patients with Major Depressive Disorder using Wavelet Packet Transform
 Akdemir Akar, Saime* *Fatih Univ.*; Kara, Sadik *Fatih Univ.*; Bilgic, Vedat *Bakirkoy Mental Health Research and Training Hospital*
- 10:00-11:30 FrBPoT3.13
Autonomic Nervous System Response to L-Dopa in Patients with Advanced Parkinson's Disease
 Ruonala, Verner Matias *Univ. of Eastern Finland*; Tarvainen, Mika* *Univ. of Eastern Finland*; Karjalainen, Pasi, A *Univ. of Eastern Finland*; Pekkonen, Eero *Helsinki Univ. Central Hospital*; Rissanen, Saara *Mirjami Univ. of Eastern Finland*
- FrBPoT3: 10:00-11:30 Gold Room
1.51 Time-Frequency and Time-Scale Analysis of Biosignals (Poster Session)
- 10:00-11:30 FrBPoT3.1
Non-Contact and Noise Tolerant Heart Rate Monitoring using Microwave Doppler Sensor and Range Imagery
 Matsunaga, Daichi* *Kobe Univ.*; Okuno, Keisuke *Kobe Univ.*; Izumi, Shintaro *Kobe Univ.*; Kawaguchi, Hiroshi *Kobe Univ.*; Yoshimoto, Masahiko *Kobe Univ.*
- 10:00-11:30 FrBPoT3.2
Extraction of Parameters for CPAP Titration using the Pulse Rate Variability (PRV)
 Urtnasan, Erdenebayar *Yonsei Univ.*; Park, Jonguk *Yonsei Univ.*; Lim, Eunho *Yonsei Univ.*; Nam, Dong-Hoon *Yonsei Univ.*; Lee, Kyoung Joung* *Yonsei Univ.*
- 10:00-11:30 FrBPoT3.3
Temporal and Spectral Analysis of Internal Carotid Artery Doppler Signal for Normal and Abnormal Flow Detection
 Palanisamy, Krishnamoorthy *Philips Research India*; Patil, Ravindra* *Philips Research India*; Ravi, Vidya *Philips*

- 10:00-11:30 FrBPoT3.14
Heart Rate Monitoring during Physical Exercise using Wrist-Type PPG Signals
 Karimi, Sajjad* *Sharif Univ. of Technology*; Shamsollahi, Mohammad Bagher *Sharif Univ. of Technology*; Malihi, Mahan *Sharif Univ. of Technology, Iran, Tehran*; Moradi, Parsa *Sharif Univ. of Technology, Iran, Tehran*; Khas Ahmadi, Amirhosein *Sharif Univ. of Technology, Iran, Tehran*
- 10:00-11:30 FrBPoT3.15
SSVEP-Based BCI: A "Plug and Play" Approach
 Mora, Niccolo* *Univ. of Parma*; De Munari, Ilaria *Univ. of Parma*; Ciampolini, Paolo *Univ. of Parma*
- 10:00-11:30 FrBPoT3.16
A New Approach for SSVEP Detection using PARAFAC and Canonical Correlation Analysis
 Godinez Tello, Richard Junior Manuel* *Univ. Federal do Espirito Santo*; Pouryazdian, Saeed *Ryerson Univ.*; Ferreira, Andre *Federal Univ. of Espirito Santo*; Beheshti, Soosan *Ryerson Univ.*; Krishnan, Sridhar *Ryerson Univ.*; Bastos, Teodiano *Univ. Federal do Espirito Santo*
- 10:00-11:30 FrBPoT3.17
P300 Latency Jitter Occurrence in Patients with Disorders of Consciousness: Toward a Better Design for Brain Computer Interface Applications
 Schettini, Francesca* *Fondazione Santa Lucia, IRCCS Neuroelectrical Imaging and BCI Labo*; Risetti, Monica *Fondazione Santa Lucia, Rome*; Arico, Pietro *Fondazione Santa Lucia*; Formisano, Rita *IRCCS Fondazione Santa Lucia, Rome, Italy*; Babiloni, Fabio *Univ. of Rome*; Mattia, Donatella *Fondazione Santa Lucia IRCCS*; Cincotti, Febo *Sapienza Univ. of Rome*
- 10:00-11:30 FrBPoT3.18
Avionic Technology Testing by using a Cognitive Neurometric Index: A Study with Professional Helicopter Pilots
 Borghini, Gianluca *Univ. of Rome Sapienza*; Arico, Pietro* *Fondazione Santa Lucia*; Di Flumeri, Gianluca *Univ. of Rome Sapienza*; Salinari, Serenella *La Sapienza Univ. of Rome*; Colosimo, Alfredo *Univ. of Rome "Sapienza"*; Bonelli, Stefano *deep blue*; Napoletano, Linda *deep blue*; Ferreira, Ana *deep blue*; Babiloni, Fabio *Univ. of Rome*
- 10:00-11:30 FrBPoT3.19
A Lossless Data Reduction Technique for Wireless EEG Recorders and Its use in Selective Data Filtering for Seizure Monitoring
 Dai, Chengliang* *Univ. of York*; Bailey, Christopher *Univ. of York*
- 10:00-11:30 FrBPoT3.20
Local Spatial Correlation Analysis of Hand Flexion/Extension using Intraoperative High-Density ECoG
 Jiang, Tianxiao* *Univ. of Houston*; Ince, Nuri *Firat Univ. of Houston*; Jiang, Tao *Tian Tan Hospital*; Mei, Shenshen *Haidian Hospital*; Li, Yunlin *Haidian Hospital*; Xiaofei, Wang *Haidian Hospital*; Sujit, Prabhu *MD Anderson Cancer Center*; Sha, Zhiyi *Univ. of Minnesota, Dept. of Neurology*
- 10:00-11:30 FrBPoT3.21
Automatic Localization of Epileptic Spikes in EEGs of Children with Infantile Spasms
 Traitruengsakul, Supachan *Rochester Institute of Technology*; Seltzer, Laurie E. *Univ. of Rochester Medical Center*; Paciorkowski, Alex R. *Univ. of Rochester Medical Center*; Ghoraani, Behnaz* *Rochester Institute of Technology*
- 10:00-11:30 FrBPoT3.22
Using Bio-Signals to Evaluate Multi Discomfort in Image Viewing – Balancing Visually Induced Motion Sickness and Field of View
 Kobayashi, Naoki* *Saitama Medical Univ.*; Iinuma, Ryo *Saitama Medical Univ., Faculty of Health and Medical Care*; Suzuki, Yuta *Saitama Medical Univ., Faculty of Health and Medical Care*; Shimada, Tetsuya *Saitama Medical Univ., Faculty of Health and Medical Care*; Ishikawa, Masahiro *Saitama Medical Univ.*
- 10:00-11:30 FrBPoT3.23
An ERP Study about the Effects of Different Spatial Frequencies and Orientations on Human Brain Activity
 Yang, Lingling* *City Univ. of Hong Kong*; Chan, Leanne LH *City Univ. of Hong Kong*
- 10:00-11:30 FrBPoT3.24
EEG Time and Frequency Domain Analyses of Primary Insomnia
 Tmar-Ben Hamida, Sana* *Texas A&M Univ. at Qatar*; Penzel, Thomas *Charite Univ. Hospital*; Ahmed, Beena *Texas A&M Univ. at Qatar*
- 10:00-11:30 FrBPoT3.25
Multiscale AM-FM Methods on EEG Signals for Motor Task Classification
 Flores Vega, Christian Humberto* *Univ. de Ingeniería y Tecnología UTEC*; Murray, Victor *Univ. of New Mexico*
- 10:00-11:30 FrBPoT3.26
A Quantitative Evaluation of Alcohol Withdrawal Tremors
 Aarabi, Parham* *Dept. of Electrical and Computer Engineering, Univ. of Toronto*; Narges *Univ. of Toronto*; Dear, Taylor *Mount Sinai Hospital, Toronto, Ontario*; Bromberg, Simon *Division of Engineering Science, Univ. of Toronto*; Gray, Sara *Emergency Medicine and Critical Care, St. Michael's Hospital*; Kahan, Mel *Dept. of Family and Community Medicine, Women's College Hos*; Borgundvaag, Bjug *Schwartz-Reisman Emergency Centre, Mount Sinai Hospital*
- 10:00-11:30 FrBPoT3.27
Amplitude and Frequency Changes in Surface EMG of Biceps Femoris during Five Days Bruce Protocol Treadmill Test
 Jamaluddin, Nurul Fauzani* *UPM*; Siti Anom, Ahmad *Univ. Putra Malaysia*; Md Ali, Sawal Hamid *National Univ. of Malaysia*
- 10:00-11:30 FrBPoT3.28
Wavelet-Based Motion Artifact Removal for Electrodermal Activity
 Chen, Weixuan* *Massachusetts Institute of Technology*; Jaques, Natasha *Massachusetts Institute of Technology*; Taylor, Sara *Massachusetts Institute of Technology*; Sano, Akane *Massachusetts Institute of Technology*; Fedor, Szymon *Massachusetts Institute of Technology*; Picard, Rosalind *Massachusetts Institute of Technology*
- 10:00-11:30 FrBPoT3.29
Differentiating Tremor Patients using Spiral Analyses
 Koirala, Nabin* *Johannes Gutenberg Univ., Dept. of Neurology Mainz*; Muthuraman, Muthuraman *Christian Albrechts Univ.*; Anjum, Tauqeer *Univ. of Kiel, Digital Signal Processing and System Theory*; Chirumamilla, Venkata Chaitanya *Johannes Gutenberg Univ., Dept. of Neurology Mainz*; Helmolt, Friederike *Dept. of Neurology, Christian Albrechts Univ. Kiel, 24*; Mideksa, Kidist Gebremariam *Univ. of Kiel*; Lange, Katrin *Dept. of Neurology, Christian Albrechts Univ. Kiel, 24*; Schmidt, Gerhard *Univ. of Kiel, Digital Signal Processing and System Theory*; Schneider, Sussane *Dept. of Neurology, Christian Albrechts Univ. Kiel, 24*; Gunther, Deuschl *Dept. of Neurology*
- 10:00-11:30 FrBPoT3.30
Effect of Downsampling and Compressive Sensing on Audio-Based Continuous Cough Monitoring
 Casaseca-de-la-Higuera, Pablo* *Univ. of the West of Scotland*; Lesso, Paul *Cirrus Logic*; McKinstry, Brian *Univ. of Edinburgh*; Pinnock, Hilary *Univ. of Edinburgh*; Rabinovich, Roberto *Univ. of Edinburgh*; McCloughan, Lucy *Univ. of Edinburgh*; Monge, Jesús *Biomedical Engineering Group, Univ. of Valladolid*
- 10:00-11:30 FrBPoT3.31
Automatic Assessment of Voice Quality in the Context of Multiple Annotations
 Gil González, Julián* *Univ. Tecnológica de Pereira*; Alvarez, Mauricio A. *Univ. Tecnológica de Pereira*; Orozco, Alvaro *Univ. Tecnológica de Pereira*

10:00-11:30 FrBPoT4.1
Single Pixel Camera: An Acquisition Strategy based on the Non-Linear Wavelet Approximation
 Rousset, Florian* *CREATIS - CNRS UMR5220 - INSERM U1044 - Univ. de Lyon - INS*; Ducros, Nicolas *INSA Lyon, CREATIS*; D'Andrea, Cosimo *Politecnico di Milano, Istituto Italiano di Tecnologia*; Peyrin, Françoise *CNRS UMR 5220, INSERM U1044, INSA Lyon, Univ. de Lyon*

10:00-11:30 FrBPoT4.2
Probabilistic Graphical Modeling of Speckle Statistics in Laser Speckle Contrast Imaging for Noninvasive and Label-Free Retinal Angiography
 Basak, Kausik *Mahindra Ecole Centrale*; Dey, Goutam *Indian Institute of Technology Kharagpur*; Sheet, Debdoot* *Indian Institute of Technology Kharagpur*; Mahadevappa, Manjunatha *Indian Institute of Technology*; Mandal, Mahitosh *Indian Institute of Technology Kharagpur*; Dutta, P.K. *School of Medical Science and Technology, IIT Kharagpur, India*

10:00-11:30 FrBPoT4.3
Detection and Density Estimation of Goblet Cells in Confocal Endoscopy for the Evaluation of Celiac Disease
 Boschetto, Davide* *IMT Institute for Advanced Studies Lucca*; Mirzaei, Hadis *Univ. of New South Wales*; Leong, Rupert *Univ. of New South Wales*; Grisan, Enrico *Univ. of Padova*

10:00-11:30 FrBPoT4.4
Hot-Spot Selection and Evaluation Methods for Whole Slice Images of Meningiomas and Oligodendrogliomas
 Swiderska, Zaneta* *Warsaw Univ. of Tech.*; Markiewicz, T. *Warsaw Univ. of Tech.*; Grala, Bartłomiej *Military Institute of Medicine*; Słodkowska, Janina *Military Institute of Medicine*

10:00-11:30 FrBPoT4.5
A Spectral Approach for the Quantitative Description of Cardiac Collagen Network from Nonlinear Optical Imaging
 Masè, Michela* *Univ. of Trento*; Cristoforetti, Alessandro *Univ. of Trento*; Avogaro, Laura *Dept. of Physics and Centre for Integrative Biology, Univ.*; Tessarolo, Francesco *Univ. of Trento*; Piccoli, Federico *Azienda Provinciale per i Servizi Sanitari*; Caola, Iole *Azienda Provinciale per i Servizi Sanitari*; Pederzoli, Carlo *Santa Chiara Hospital, Trento*; Graffigna, Angelo *Division of Cardiac Surgery, S. Chiara Hospital, Trento*; Ravelli, Flavia *Univ. of Trento*

10:00-11:30 FrBPoT4.6
Corneal Deformation Dynamics in Normal and Glaucoma Patients Utilizing Scheimpflug Imaging
 Rogowska, Marta Ewa* *Wroclaw Univ. of Technology*; Iskander, D Robert *Wroclaw Univ. of Technology*

10:00-11:30 FrBPoT4.7
Neurotransmitter Vesicle Movement Dynamics in Living Neurons
 Moreira, Hélder *Faculty of Engineering Univ. of Porto*; Silva, Ivo *Faculdade de Engenharia da Univ. do Porto*; Sousa, Monica *IBMC, Univ. of Porto*; Sampaio, Paula *IBMC - Instituto de Biologia Molecular e Celular, Univ. d*; Cunha, João Paulo *Univ. of Porto and INESC TEC*

10:00-11:30 FrBPoT4.8
Proof of Concept of an Automatic Tool for Bioluminescence Imaging Data Analysis
 Mastropietro, Alfonso* *Consiglio Nazionale delle Ricerche (CNR)*; Tennstaedt, Annette *In-vivo NMR lab, Max Planck Institute for Neurological Research*; Beyrau, Andreas *In-vivo NMR lab, Max Planck Institute for Neurological Research*; Henn, Nadine *In-vivo NMR lab, Max Planck Institute for Neurological Research*; Hoehn, Mathias *In-vivo NMR lab, Max Planck Institute for Neurological Research*; Baselli, Giuseppe *Politecnico di Milano*

10:00-11:30 FrBPoT4.9
Motion Reduction and Multidimensional Denoising in Voltage-Sensitive Dye Imaging
 Romero Santiago, Alejandro E.* *Saarland Univ.*; Schwerdtfeger, Karsten *Saarland Univ. Hospital*; Szczygielski, Jacek *Saarland Univ. Hospital, Neurosurgery Dept.*; Flotho, Philipp *Systems Neuroscience and NeuroTechnology Unit*; Schubert, J. *Kristof SNN-Unit*; Haab, Lars *Saarland Univ. Hospital*; Hmila, Mehdi *Systems Neuroscience and NeuroTechnology Unit*; Strauss, Daniel J. *Saarland Univ., Medical Faculty*

10:00-11:30 FrBPoT4.10
Reduction of Light Source Noise from Optical Intrinsic Signals of Mouse Neocortex by using Independent Component Analysis
 Yoshida, Yuto *Graduate School of Information Sciences, Tohoku Univ.*; Nakagawa, Daiki *Graduate School of Information Sciences, Tohoku Univ.*; Karashima, Akihiro *Tohoku Univ.*; Nakao, Mitsuyuki *Tohoku Univ.*; Katayama, Norihiro* *Tohoku Univ.*

10:00-11:30 FrBPoT4.11
A Comparison of Signal Processing Techniques for Intrinsic Optical Signal Imaging in Mice
 Turley, Jordan Alexander* *Univ. of Newcastle*; Nilsson, Michael *Univ. of Newcastle*; Walker, Frederick Rohan *Univ. of Newcastle*; Johnson, Sarah J *Univ. of Newcastle*

10:00-11:30 FrBPoT4.12
Estimation of Neuronal Activity based on Voltage-Sensitive Dye Imaging in a Moving Preparation
 Fathiazar, Elham *Univ. of Oldenburg*; Kretzberg, Jutta* *Computational Neuroscience, Univ. of Oldenburg*

10:00-11:30 FrBPoT4.13
Measuring Blood Flow Velocity from Intravital Video Recordings
 Guimaraes, Pedro* *Univ. of Padova*; Xiang, Weiwei *Dept. Physiology, Charité*; Wigdahl, Jeffrey *Univ. of Padova*; Reglin, Bettina *Dept. Physiology, Charité*; Pries, Axel *Dept. Physiology, Charité*; Ruggeri, Alfredo *Univ. of Padua*

10:00-11:30 FrBPoT4.14
Measurement of Vital Sign in Chick Embryo using Multi-Channel Diffuse Speckle Contrast Analysis
 Yeo, Chaebom *DGIST*; Park, Hyun-cheol *DGIST*; Lee, Kijoon *DGIST*; Song, Cheol* *DGIST (Univ.)*

10:00-11:30 FrBPoT4.15
Spatial Localization of Ryanodine Receptors in Human Cardiac Cells
 Vallmitjana, Alex *Automatic Control Dept., Univ. Politecnica de Catalunya*; Nolla, Carme *Univ. Politècnica de Catalunya*; Herrainz, Adela *Cardiovascular Research Center from the Spanish National Research*; Hove-Madsen, Leif *Cardiovascular Research Center from the Spanish National Research*; Benitez, Raul* *Univ. Politecnica de Catalunya*

10:00-11:30 FrBPoT4.16
A New Modality of Bidimensional Compton Camera
 Cebeiro, Javier* *Univ. Nacional de San Martin*; Lebailly, Quentin *École Nationale Supérieure de l'Electronique et de ses Applicati*; Morvidone, Marcela *Alejandra Univ. Nacional de San Martin*; Nguyen, Mai K. *Univ. of Cergy-Pontoise*

10:00-11:30 FrBPoT4.17
Tuning of a Deformable Image Registration Procedure for Skin Component Mechanical Properties Assessment
 Montin, Eros *Politecnico di Milano*; Cutri, Elena *Dept. of Chemistry, Materials and Chemical Engineering Depa*; Spadola, Giuseppe *Dermatocological Surgery Division, Istituto Europeo di Oncologia*; Testori, Alessandro *Dermatocological Surgery Division, Istituto Europeo di Oncologia*; Pennati, Giancarlo *Dept. of Chemistry, Materials and Chemical Engineering Depa*; Mainardi, Luca* *Politecnico di Milano*

FrBPoT5: 10:00-11:30 2.41 Ultrasound Imaging (Poster Session)	Gold Room	10:00-11:30 Scatterer Reconstruction and Parametrization of Homogeneous Tissue for Ultrasound Image Simulation Mattausch, Oliver* <i>ETH Zurich</i> ; Goksel, Orcun <i>ETH Zurich</i>	FrBPoT5.11
10:00-11:30 Intrinsic Elastography and Its Dependence on Arterial Flow Volume Nagaoka, Ryo <i>Tohoku Univ.</i> ; Kobayashi, Kazuto <i>Honda Electronics Co., Ltd.</i> ; Yoshizawa, Shin <i>Tohoku Univ.</i> ; Umemura, Shin-ichiro <i>Tohoku Univ.</i> ; Saijo, Yoshifumi* <i>Tohoku Univ.</i>	FrBPoT5.1	10:00-11:30 Dynamic Estimation of Myocardial Deformation using Ultrasound RF-Data a Preliminary Study Shan, Zhirui <i>Southern Medical Univ.</i> ; Li, Xuan <i>Southern Hospital, Southern Medical Univ., Guangzhou, Guang</i> ; Wang, Yinong <i>Institute of Medical Information, School of Biomedical Engineeri</i> ; Wang, Qing* <i>Institute of Medical Information, School of Biomedical Engineeri</i>	FrBPoT5.12
10:00-11:30 Using Ultrasound Image Analysis to Evaluate the Role of Elastography Imaging in the Diagnosis of Carotid Atherosclerosis Xenikou, Monika Filitsa* <i>National Technical Univ. of Athens</i> ; Golemati, Spyretta <i>National Kapodistrian Univ. of Athens</i> ; Gastouniotti, Aimilia <i>National Technical Univ. of Athens</i> ; Tzortzi, Marianna <i>National Technical Univ. of Athens</i> ; Moraitis, Nektarios <i>National Technical Univ. of Athens</i> ; Charalampopoulos, Georgios <i>Vascular Ultrasound Laboratory "Evroiatriki Psychico", Athens</i> ; Liasis, Nicolaos <i>Vascular Ultrasound Laboratory "Evroiatriki Psychico", Athens</i> ; Dedes, Athanasios <i>Dept. of Vascular Surgery, General Hospital of Athens "Korg</i> ; Besias, Nicolaos <i>Dept. of Vascular Surgery, General Hospital of Athens "Korg</i> ; Maras, Dimitrios <i>Dept. of Vascular Surgery, General Hospital of Athens "Korg</i> ; Nikita, Konstantina <i>National Technical Univ. of Athens</i>	FrBPoT5.2	10:00-11:30 Measurement of Ultrasonic Diaphragmatic Motion Chrysostomou, Constantinos <i>Univ. of Thessaly, School of Sciences</i> ; Loizou, Christos <i>InterCollege</i> ; Minas, George <i>Intensive Care Unit, General Hospital of Nicosia</i> ; Delibasis, Konstantinos <i>Univ. of Central Greece</i> ; Pattichis, Constantinos* <i>Univ. of Cyprus</i>	FrBPoT5.13
10:00-11:30 A Texture Analysis Approach for Objective Uniformity Evaluation in Diagnostic Ultrasound Imaging: A Preliminary Study Scorza, Andrea <i>Roma Tre Univ.</i> ; Conforto, Silvia* <i>Univ. Roma TRE</i> ; Lupi, Giulia <i>Univ. of Rome "ROMA TRE"</i> ; Sciuto, Salvatore <i>Andrea Univ. of Rome "ROMA TRE"</i>	FrBPoT5.3	FrBPoT6: 10:00-11:30 2.42 X-Ray Imaging II (Poster Session)	Gold Room
10:00-11:30 Breast Tumor Classification in Ultrasound Images using Neural Networks with Improved Generalization Methods Deodoro, Sergio <i>Federal Univ. of Amazonas</i> ; Costa, Marly G. F. <i>Federal Univ. of Amazonas - UFAM</i> ; Coelho de Albuquerque Pereira, Wagner <i>Univ. Federal do Rio de Janeiro</i> ; Costa Filho, Cicero F. F.* <i>Fundacao de Apoio Inst Rio Solimoes</i>	FrBPoT5.4	10:00-11:30 Weighted Locality-Constrained Linear Coding for Lesion Classification in CT Images Yuan, Yixuan* <i>The Chinese Univ. of Hong Kong</i> ; Hoogi, Assaf <i>Stanford Univ.</i> ; Beaulieu, Christopher <i>Stanford Univ.</i> ; Meng, Max Q.-H. <i>The Chinese Univ. of Hong Kong</i> ; Rubin, Daniel <i>Stanford Univ.</i>	FrBPoT6.1
10:00-11:30 HoG Feature based Detection of Tissue Deformations in Ultrasound Data Czajkowska, Joanna* <i>Silesian Univ. of Technology</i> ; Pyciński, Bartłomiej <i>Silesian Univ. of Technology</i> ; Pietka, Ewa <i>Silesian Univ. of Technology</i>	FrBPoT5.5	10:00-11:30 Correlations between X-Ray Attenuation and GAG Content of Different Cartilage Layers based on Contrast Agent Enhanced Micro-CT Fan, Fan <i>Beihang Univ.</i> ; Li, Xiaofei <i>Beihang Univ.</i> ; Ren, Pengling <i>Beihang Univ.</i> ; Cai, Xiran <i>Beihang Univ.</i> ; Yan, Yan <i>Beihang Univ.</i> ; Fan, Yubo <i>Beihang Univ.</i> ; Niu, Haijun* <i>Beihang Univ.</i>	FrBPoT6.2
10:00-11:30 A Semi-Automatic Process for Estimating Fetus Velocity using Ultrasound Imaging and Videos Mitrou, Michalis* <i>TU Berlin</i> ; Agrafiotis, Panagiotis <i>National Technical Univ. of Athens</i> ; Georgopoulos, Andreas <i>National Technical Univ. of Athens</i> ; Sideris, Apostolos <i>MITERA Maternity/Gynecological Clinic</i>	FrBPoT5.6	10:00-11:30 Development and Analysis of a Finite Element Model to Simulate Pulmonary Emphysema in CT Imaging Diciotti, Stefano* <i>Alma Mater Studiorum, Univ. of Bologna</i> ; Nobis, Alessandro <i>Univ. of Florence</i> ; Ciulli, Stefano <i>Univ. of Florence</i> ; Landini, Nicholas <i>Univ. of Florence</i> ; Mascali, Mario <i>Univ. of Florence</i> ; Sverzellati, Nicola <i>Univ. of Parma</i> ; Innocenti, Bernardo <i>Ecole polytechnique de Bruxelles, ULB Univ. Libre de Bruxelles</i>	FrBPoT6.3
10:00-11:30 High-Contrast and Low-Computational Complexity Medical Ultrasound Imaging using BeamSpace Capon Method Okumura, Shigeaki* <i>Kyoto Univ.</i> ; Taki, Hirofumi <i>Tohoku Univ.</i> ; Sato, Toru <i>Kyoto Univ.</i>	FrBPoT5.7	10:00-11:30 Combined Bone Lesion Analysis in 3D CT Data of Vertebrae Jan, Jiri* <i>Brno Univ. of Tech.</i> ; Novosadová, Michaela <i>Brno Univ. of Tech.</i> ; Demel, Jan <i>Brno Univ. of Tech.</i> ; Ourednicek, Petr <i>Philips Nederland</i> ; Chmelík, Jiří <i>Brno Univ. of Tech.</i> ; Jakubíček, Roman <i>Brno Univ. of Tech.</i>	FrBPoT6.4
10:00-11:30 Carotid Ultrasound Segmentation using Radio-Frequency Derived Phase Information and Gabor Filters Azzopardi, Carl* <i>Univ. of Malta</i> ; Camilleri, Kenneth Patrick <i>Univ. of Malta</i> ; Hicks, Yulia A. <i>Univ. of Cardiff</i>	FrBPoT5.8	10:00-11:30 Quantitative Study of Osteoporosis Model based on Synchrotron Radiation Xu, Wangyang <i>Shanghai Jiao Tong Univ.</i> ; Xu, Jun <i>Shanghai No. 6 People's Hospital</i> ; Zhao, Jun <i>Shanghai Jiao Tong Univ.</i> ; Sun, Jianqi* <i>Shanghai Jiao Tong Univ.</i>	FrBPoT6.5
10:00-11:30 Clutter Rejection Methods in Doppler Color Flow Imaging: Single-Ensemble vs. Multi-Ensemble Zhiyuan, Shen* <i>Nanjing Univ. of Aeronautics and Astronautics</i> ; Feng, Naizhang <i>Harbin Institute of Technology</i>	FrBPoT5.9	10:00-11:30 Detection of Microcalcification with Top-Hat Transform and the Gibbs Random Fields Bharadwaj, Akshay <i>Ohio Univ.</i> ; Celenk, Mehmet* <i>Ohio Univ.</i>	FrBPoT6.6
10:00-11:30 A Simulation Study on the Choice of Regularization Parameter in L2-Norm Ultrasound Image Restoration Chen, Zhouye* <i>Univ. de Toulouse</i> ; Basarab, Adrian <i>Univ. de Toulouse</i> ; Kouamé, Denis <i>Univ. de Toulouse, IRT UMR CNRS</i>	FrBPoT5.10	10:00-11:30 Algorithm for Automatic Angles Measurement and Screening for Developmental Dysplasia of the Hip (DDH) Al-Bashir, Areen* <i>Jordan Univ. of Science and Technology</i> ; Al-Abed, Mohammad <i>Hashemite Univ.</i>	FrBPoT6.7

10:00-11:30	FrBPoT6.8	Alterations of Diaphragm and Rib Cage Morphometry in Severe COPD Patients by CT Analysis Salito, Caterina <i>Politecnico di Milano</i> ; Luoni, Eleonora <i>Politecnico di Milano</i> ; Aliverti, Andrea* <i>Politecnico di Milano</i>	10:00-11:30	FrBPoT8.2	Noninvasive Pulse Transit Time Measurement for Arterial Stiffness Monitoring in Microgravity McCall, Corey* <i>Stanford Univ.</i> ; Rostosky, Rea <i>Stanford Univ.</i> ; Wiard, Richard M. <i>Stanford Univ.</i> ; Inan, Omer <i>Georgia Institute of Tech.</i> ; Giovannardi, Laurent <i>Stanford Univ.</i> ; Cuttino, Charles M. <i>Orbital Medicine, Inc.</i> ; Kovacs, Gregory T.A. <i>Stanford Univ.</i>
10:00-11:30	FrBPoT6.9	A New Computer-Aided Detection Scheme based on Assessment of Local Bilateral Mammographic Feature Asymmetry – A Preliminary Evaluation Kelder, Adam* <i>Ben-Gurion Univ. of the Negev</i> ; Zigel, Yaniv <i>Ben-Gurion Univ. of the Negev</i> ; Lederman, Dror <i>Holon Institute of Technology</i> ; Zheng, Bin <i>Univ. of Oklahoma</i>	10:00-11:30	FrBPoT8.3	Feasibility of an Electrodermal Activity Ring Prototype as a Research Tool Torniainen, Jari* <i>Finnish Institute of Occupational Health</i> ; Cowley, Benjamin <i>Finnish Institute of Occupational Health</i> ; Henelius, Andreas <i>Finnish Institute of Occupational Health</i> ; Lukander, Kristian <i>Finnish Institute of Occupational Health</i> ; Pakarinen, Satu <i>Finnish Institute of Occupational Health</i>
FrBPoT7: 10:00-11:30		Gold Room	3.25 Optical and Photonic Sensors and Systems II (Poster Session)		
10:00-11:30	FrBPoT7.1	A Survey of Remote Optical Photoplethysmographic Imaging Methods McDuff, Daniel Jonathan <i>Massachusetts Institute of Technology</i> ; Estep, Justin Ronald* <i>Air Force Research Laboratory</i> ; Piasecki, Alyssa <i>Air Force Research Laboratory</i> ; Blackford, Ethan <i>Ball Aerospace & Technologies Corp.</i>	10:00-11:30	FrBPoT8.4	Stress of Kindergarten Teachers: How we Tried to Detect and to Reduce It by using a Small and Wearable ECG and Acceleration Measuring Device? Shirouzu, Shigenori* <i>Japanese Research Institute of Healthcare and Education</i> ; Seno, Yumeka <i>Nazareth Kindergarten</i> ; Tobioka, Ken <i>Institute of Man and Science</i> ; Sugano, Hlsanobu <i>Emeritus professor of Univ. of Occupational and Environment</i> ; Masaki, Takeo <i>Japanese Research Institute of Healthcare and Education</i> ; Mishima, Norio <i>Ikemi Memorial Clinic of Mind-Body MMedicine</i> ; Yasumatsu, Kiyotaka <i>Medical Corporation Megumi-Kai, Fykuoka Megumi Hospital</i>
10:00-11:30	FrBPoT7.2	Peripheral Venous Blood Oxygen Saturation can be Non-Invasively Estimated using Photoplethysmography Khan, Musabbir* <i>Univ. of Canterbury</i> ; Pretty, Christopher G. <i>Univ. of Canterbury</i> ; Amies, Alexander C. <i>Univ. of Canterbury</i> ; Elliott, Rodney B. <i>Univ. of Canterbury</i> ; Suhaimi, Fatanah <i>Univ. Sains Malaysia</i> ; Shaw, Geoffrey M <i>Christchurch Hospital</i> ; Chase, J. Geoffrey <i>Univ. of Canterbury</i>	10:00-11:30	FrBPoT8.5	Ambient Light Cancellation in Photoplethysmogram Application using Alternating Sampling and Charge Redistribution Technique Kim, Jong Pal <i>Samsung Advanced Institute of Technology</i> ; Lee, Tak Hyung <i>Future IT Research Center, Samsung Advanced Institute of Technology</i> ; Kim, Ji-Hoon <i>Chungnam National Univ.</i> ; Ko, Hyoungho* <i>Chungnam National Univ.</i>
10:00-11:30	FrBPoT7.3	Development of a Photon-Cell Interactive Monte Carlo Simulation for Non-Invasive Measurement of Blood Glucose Level by Raman Spectroscopy Sakota, Daisuke* <i>National Institute of Advanced Industrial Science and Technology</i> ; Kosaka, Ryo <i>AIST</i> ; Nishida, Masahiro <i>National Institute of Advanced Industrial Science and Technology</i> ; Maruyama, Osamu <i>National Institute of Advanced Industrial Science and Technology</i>	10:00-11:30	FrBPoT8.6	pH Measurements of FET-Based (bio)Chemical Sensors using Portable Measurement System Voitsekhivska, Tetiana* <i>TU Dresden</i> ; Zörgiebel, Felix <i>TU Dresden, Max-Bergmann-Center for Materials Science and Center</i> ; Suthau, Eike <i>TU Dresden / ZMP</i> ; Wolter, Klaus-Juergen <i>Technische Univ. Dresden</i> ; Bock, Karlheinz <i>TU Dresden</i> ; Cuniberti, Gianuario <i>TU Dresden, Max-Bergmann-Center for Materials Science and Center</i>
10:00-11:30	FrBPoT7.4	Surface Plasmon Resonance Biosensor as a Tool for the Measurement of Complex Refractive Indices Filion-Côté, Sandrine* <i>McGill Univ.</i> ; Tabrizian, Maryam <i>McGill Univ.</i> ; Kirk, Andrew G. <i>McGill Univ.</i>	10:00-11:30	FrBPoT8.7	Visualization Method based Stiffness Sensing System for Endoscopes Iwai, Takanobu <i>Kanazawa Univ.</i> ; Koyama, Toshio <i>Kanazawa Univ.</i> ; Kagawa, Hiroyuki <i>Kanazawa Univ.</i> ; Yoneyama, Takeshi <i>Kanazawa Univ.</i> ; Watanabe, Tetsuyou* <i>Kanazawa Univ.</i>
10:00-11:30	FrBPoT7.5	Investigation of Photoplethysmography, Laser Doppler Flowmetry and Near Infrared Spectroscopy during Induced Thermal Stress Budidha, Karthik* <i>City Univ.</i> ; Ysehak Abay, Tomas <i>City Univ. of London</i> ; Kyriacou, Panayiotis <i>City Univ. London</i>	FrBPoT9: 10:00-11:30		
10:00-11:30	FrBPoT7.6	Discrete Wavelength Selection for the Optical Readout of a Metamaterial Biosensing System for Glucose Concentration Estimation via a Support Vector Regression Model Teutsch, Tanja* <i>Univ. of Stuttgart</i> ; Mesch, Martin <i>Univ. of Stuttgart</i> ; Giessen, Harald <i>Univ. of Stuttgart</i> ; Tarin, Cristina <i>Univ. of Stuttgart</i>	Gold Room		
FrBPoT8: 10:00-11:30		Gold Room	4.16 Analysis of High-throughput Systems Biology Data (Poster Session)		
10:00-11:30	FrBPoT8.1	Pulse Wave Registration from Radial Artery using Photoplethysmographic Method Pilt, Kristjan* <i>Technical Univ. of Tallinn</i> ; Leier, Mairo <i>Tallinn Univ. of Technology</i> ; Silluta, Sandra <i>Tallinn Univ. of Technology</i> ; Temitski, Kristina <i>Tallinn Univ. of Technology</i> ; Meigas, Kalju <i>Tallinn Univ. of Technology</i> ; Viigimaa, Margus <i>Technomedicum of the Tallinn Institute of Technology</i>	10:00-11:30	FrBPoT9.1	Performance Comparison of Next Generation Sequencing Platforms Ergüner, Bekir* <i>Advanced Genomics and Bioinformatics Research Center, BILGEM - T</i> ; Sağiroğlu, Mahmut Şamil <i>Advanced Genomics and Bioinformatics Research Center, BILGEM - T</i> ; Üstek, Duran <i>Medical Genetics Dept., Istanbul Medipol Univ., Istanbul</i>
10:00-11:30	FrBPoT8.2	Genome-Based Microorganism Classification using Coalition Formulation Game Chung, Byung Chang* <i>Korea Advanced Institute of Science and Technology (KAIST)</i> ; Han, Gyu-Bum <i>Korea Advanced Institute of Science and Technology (KAIST)</i> ; Cho, Dong-Ho <i>Korea Advanced Institute of Science and Technology (KAIST)</i>	August 28 Friday		

- 10:00-11:30 FrBPoT9.3
Effect of Low-Expression Gene Filtering on Detection of Differentially Expressed Genes in RNA-Seq Data
 Sha, Ying *Georgia Institute of Technology*; Phan, John H. *Georgia Institute of Technology*; Wang, May D.* *Georgia Tech and Emory Univ.*
- 10:00-11:30 FrBPoT9.4
An Optimal Method to Segment Piecewise Poisson Distributed Signals with Application to Sequencing Data
 Duan, Junbo *Xi'an Jiaotong Univ.*; Soussen, Charles *Univ. of Lorraine, Centre de Recherche en Automatique de Na*; Brie, David *Univ. de Lorraine*; IDIER, Jérôme *CNRS*; Wang, Yu-Ping *Tulane Univ.*; Wan, Mingxi* *Xi'an Jiaotong Univ.*
- 10:00-11:30 FrBPoT9.5
A Multi-Fold String Kernel for Sequence Classification
 Maiti, Aniruddha *Dept. of Computer and Information Sciences, Temple Univ.*; Ghorai, Santanu *Dept. of Applied Electronics & Instrumentation Engineering*; Mukherjee, Anirban* *Indian Institute of Technology Kharagpur*
- 10:00-11:30 FrBPoT9.6
Tracking Single-Cells in Overcrowded Bacterial Colonies
 Balomenos, Athanasios* *Univ. of Athens*; Tsakanikas, Panagiotis *Agricultural Univ. of Athens*; Manolokos, Elias *Univ. of Athens*
- 10:00-11:30 FrBPoT9.7
Metabolite Analysis in Sepsis through Conditional Independence Maps
 Ribas Ripoll, Vicent J.* *Research Director Llenguatges i Sistemes Informàtics CSE*; Romay, Eduardo *Hospital Mutua de Terrassa*; Brunelli, Laura *IRCCS - Istituto di Recherche Farmacologiche Mario Negri*; Pastorelli, Roberta *IRCCS - Istituto di Recherche Farmacologiche Mario Negri*; Goma, Gemma *Critical Care Center. Sabadell Hospital. Corporación Sanitària U*; Navas, Ana *Critical Care Center. Sabadell Hospital. Corporación Sanitària U*; Ferrer, Ricard *Hospital Mutua de Terrassa*; Artigas, Antoni *Critical Care Center. Sabadell Hospital. Corporación Sanitària U*
- 10:00-11:30 FrBPoT9.8
SRIdent: A Novel Pipeline for Real-Time Identification of Species from High-throughput Sequencing Reads in Metagenomics and Clinical Diagnostic Assays
 Karimi, Ramin* *Univ. of Debrecen*; Hajdu, Andras *Univ. of Debrecen*
- 10:00-11:30 FrBPoT9.9
C. Elegans Locomotion Analysis using Algorithmic Information Theory
 Skandari, Roghieh* *The Univ. of Melbourne*; Le Bihan, Nicolas *CNRS*; Manton, Jonathan *The Univ. of Melbourne*
- 10:00-11:30 FrBPoT9.10
DNA Assembly with De Bruijn Graphs on FPGA
 Poirier, Carl *Laval Univ.*; Gosselin, Benoit* *Laval Univ.*; Fortier, Paul *Laval Univ.*
- FrBPoT10: 10:00-11:30 Gold Room
4.17 Modeling Molecular/Cellular Pathways and Networks
 (Poster Session)
- 10:00-11:30 FrBPoT10.1
Modeling HPV Early Promoter Regulation
 Giaretta, Alberto *Univ. of Padova, Dept. of Information Engineering*; Di Camillo, Barbara *Univ. of Padova*; Barzon, Luisa *Univ. of Padova, Dept. of Molecular Medicine*; Toffolo, Gianna* *Univ. of Padova*
- 10:00-11:30 FrBPoT10.2
A Network-Based Approach to Enrich Gene Signatures for the Prediction of Breast Cancer Metastases
 Sfakianakis, Stelios* *Foundation for Research and Technology Hellas*; Bei, Ekaterini *Technical Univ. of Crete*; Zervakis, Michalis *Technical Univ. of Crete, Greece*; Kafetzopoulos, Dimitris *FORTH*
- 10:00-11:30 FrBPoT10.3
An Approach for Optimally Extending Mathematical Models of Signaling Networks using Omics Data
 Bianconi, Fortunato* *Univ. of Perugia*; Patiti, Federico *Univ. of Perugia*; Baldelli, Elisa *Center for Applied Proteomics and Molecular Medicine, George Mas*; Crinò, Lucio *Dept of Medical Oncology, Santa Maria della Misericordia Hospita*; Valigi, Paolo *Univ. of Perugia*
- 10:00-11:30 FrBPoT10.4
A Computational Model of Dopamine and Acetylcholine Aberrant Learning in Basal Ganglia
 Baston, Chiara* *Univ. of Bologna*; Ursino, Mauro *Univ. of Bologna*
- 10:00-11:30 FrBPoT10.5
Identifying Gene Subnetworks Associated with Clinical Outcome in Ovarian Cancer using Network based Coalition Game
 Razi, Abolfazl* *Case Western Reserve Univ.*; Afghah, Fatemeh *North Carolina A&T State Univ.*; Varadan, Vinay *Philips Research North America*
- 10:00-11:30 FrBPoT10.6
Non-Linear Bayesian Framework to Determine the Transcriptional Effects of Cancer-Associated Genomic Aberrations
 Razi, Abolfazl *Case Western Reserve Univ.*; Banerjee, Nilanjana *Philips Research North America*; Dimitrova, Nevenka *Philips Research*; Varadan, Vinay* *Philips Research North America*
- 10:00-11:30 FrBPoT10.7
Differentiating Disease Subtypes by using Pathway Patterns Constructed from Gene Expressions and Protein Networks
 Hung, Fei-Hung *Taipei Medical Univ.*; Chiu, Hung-Wen* *Taipei Medical Univ.*
- FrBPoT11: 10:00-11:30 Gold Room
5.16 Cardiac Mechanics (Poster Session)
- 10:00-11:30 FrBPoT11.1
Effect of Fibre Orientation on Diastolic Mechanics of Human Ventricle
 Palit, Arnab* *The Univ. of Warwick*; Bhudia, Sunil *Univ. Hospitals Coventry and Warwickshire*; Arvanitis, Theodoros *IDH, WMG, The Univ. of Warwick*; Sherwood, Victoria *Univ. Hospitals Coventry and Warwickshire*; Wayte, Sarah *Univ. Hospitals Coventry and Warwickshire*; Turley, Glen *WMG, The Univ. of Warwick*; Williams, Mark *WMG, The Univ. of Warwick*
- 10:00-11:30 FrBPoT11.2
Can We Hear Ventricle Dyssynchrony? Yes, We Can
 Jurak, Pavel* *Inst of Scientific Instruments Academy*; Halamek, Josef *Institute of Scientific Instruments*; Plesinger, Filip *Institute of Scientific Instruments of the ASCR, v.v.i.*; Reichlova, Tereza *International Clinical Research Center - Center of Biom*; Vondra, Vlastimil *Institute of Scientific Instruments AS CR*; Viscor, Ivo *Institute of Scientific Instruments, Czech Academy of Sciences*; Leinveber, Pavel *St. Anne's Univ. Hospital*
- 10:00-11:30 FrBPoT11.3
Automatic Segmentation of the Left Ventricle into 17 Anatomical Regions in Cardiac MR Imaging
 Liang, Xi *IBM Melbourne Research Lab*; Garnavi, Rahil* *IBM Research Australia*; Wail, Simon *IBM Melbourne Research Lab*; Liang, Sisi *IBM Melbourne Research Lab*; Prasanna, Prasanth *IBM Research - Almaden*
- 10:00-11:30 FrBPoT11.4
Computer-Based Assessment of Ventricular Mechanical Synchrony from Magnetic Resonance Imaging
 Zhao, Xiaodan *National Heart Centre Singapore*; Leng, Shuang *National Heart Centre Singapore*; Tan, Ru San *National Heart Center*; Zhong, Liang* *National Heart Centre Singapore*
- 10:00-11:30 FrBPoT11.5
Automatic Localization of Mitral Valve Orifice in Three-Dimensional Left Cardiac Model
 Wan, Min* *Nanchang Univ.*; Zhong, Liang *Natl. Heart Centre Singapore*; Zhang, Jun-Mei *Natl. Heart Center*; Zhao, Xiaodan *Natl. Heart Centre Singapore*; Tan, Ru San *Natl. Heart Center*; Huang, Wei *Nanchang Univ.*; Wan, Xiaofeng *Nanchang Univ.*

10:00-11:30 FrBPoT11.6
Modelling of the Nonlinear End-Systolic Pressure-Volume Relation and Volume at Zero Pressure in Porcine Experiments
 Davidson, Shaun* *Univ. of Canterbury*; Kannangara, Don Oliver *Univ. of Canterbury*; Pretty, Christopher G. *Univ. of Canterbury*; Kamoi, Shun *Univ. of Canterbury*; Pironet, Antoine *Univ. of Liège (ULg), GIGA-Cardiovascular Sciences, Liège*; Desaive, Thomas *Univ. of Liege*; Chase, J. Geoffrey *Univ. of Canterbury*

10:00-11:30 FrBPoT11.7
Myocardial Contractility Assessed by Dynamic Electrical Impedance Measurements during Dobutamine Stress
 García-Sánchez, Tomás* *Univ. Politècnica de Catalunya*; Jorge, Esther *Cardiology Unit, Hospital Santa Creu i Sant Pau (HSCSP)*; Amoros-Figueras, Gerard *Cardiology Unit, Hospital Santa Creu i Sant Pau (HSCSP)*; Bragos, Ramon *Technical Univ. of Catalonia (UPC)*; Cinca, Joan *Cardiology Unit, Hospital Santa Creu i Sant Pau (HSCSP)*; Rosell-Ferrer, Javier *Technical Univ. of Catalonia*

FrBPoT12: 10:00-11:30 Gold Room
5.17 Cardiovascular Modeling and Signal Processing
 (Poster Session)

10:00-11:30 FrBPoT12.1
A Proof-of-Concept Study for Predicting the Region of Atherosclerotic Plaque Development based on Plaque Growth Modeling in Carotid Arteries
 Sakellarios, Antonis *Univ. of Ioannina*; Bizopoulos, Paschalis *National Technical Univ. of Athens*; Stefanou, Kostas *FORTH-BRI*; Athanasiou, Lambros *Univ. of Ioannina*; Papafaklis, Michail *Medical School, Univ. of Ioannina*; Bourantas, Christos *Dept. of Academic Cardiology, Castle Hill Hospital, Cottingham, HU*; Naka, Katerina *Univ. of Ioannina*; Michalis, Lampros *Univ. of Ioannina*; Fotiadis, Dimitrios I.* *Univ. of Ioannina*

10:00-11:30 FrBPoT12.2
Prediction of Atheromatic Plaque Evolution in Carotids using Features Extracted from the Arterial Geometry
 Bizopoulos, Paschalis *National Technical Univ. of Athens*; Sakellarios, Antonis *Univ. of Ioannina*; Koutsouris, Dimitrios *Biomedical Engineering Laboratory, School of Electrical and Comp*; Kountouras, Jannis *Dept. of Medicine, Second Medical Clinic, Aristotle Univ.*; Kostretzis, Lazaros *First Orthopaedic Dept., G.Papanikolaou Hospital, GR 5701 E*; Karagergou, Stella *Obstetrics and Gynecology Dept., General Hospital of Serre*; Michalis, Lampros *Univ. of Ioannina*; Fotiadis, Dimitrios I.* *Univ. of Ioannina*

10:00-11:30 FrBPoT12.3
A Particle Filter Framework for the Estimation of Heart Rate from ECG Signals Corrupted by Motion Artifacts
 Nathan, Viswam* *Univ. of Texas at Dallas*; Akkaya, Ilge *Univ. of California at Berkeley*; Jafari, Roozbeh *Univ. of Texas at Dallas*

10:00-11:30 FrBPoT12.4
Constructing Energy Expenditure Regression Model using Heart Rate with Reduced Training Time
 Xu, Zhen *Univ. of Texas at Dallas*; Zong, Chengzhi *Univ. of Texas at Dallas*; Jafari, Roozbeh* *Univ. of Texas at Dallas*

10:00-11:30 FrBPoT12.5
Estimation of Respiratory Rates based on Photoplethysmographic Measurements at the Sternum
 Chreiteh, Shadi* *Dept. of Micro- and NanoTechnology, Technical Univ. of Belhage, Bo Univ. of Copenhagen*; Hoppe, Karsten *DELTA*; Branebjerg, Jens *DELTA*; Haahr, Rasmus G *Delta Microelectronics*; Duun, Sune *Technical Univ. of Denmark*; Thomsen, Erik V *Technical Univ. of Denmark*

10:00-11:30 FrBPoT12.6
Method for Classifying Cardiac Arrhythmias using Photoplethysmography
 Polania, Luisa F. *Univ. of Delaware*; Mestha, Lalit, K.* *Palo Alto Research Center - A Xerox Company*; Huang, David *Univ. of Rochester Medical Center*; Couderc, Jean-Philippe *Univ. of Rochester*

FrBPoT13: 10:00-11:30 Gold Room
6.38 Neurological Disorders II (Poster Session)

10:00-11:30 FrBPoT13.1
Seizure Detection using Regression Tree based Feature Selection and Polynomial SVM Classification
 Zhang, Z. *Univ. of Minnesota*; Parhi, K.* *Univ. of Minnesota*

10:00-11:30 FrBPoT13.2
Detection of Seizures in Intracranial EEG: UPenn and Mayo Clinic's Seizure Detection Challenge
 Temko, Andriy* *Univ. College Cork*; Sarkar, Achintya Kumar *Univ. College Cork, Ireland*; Lightbody, Gordon *Univ. College Cork*

10:00-11:30 FrBPoT13.3
Transcranial Focal Electrical Stimulation Reduces Seizure Activity and Hippocampal Glutamate Release during Status Epilepticus
 Santana-Gómez, César E. *Dept. of Pharmacobiology, Center for Research and Advanced Studi*; Alcántara-González, David *Dept. of Pharmacobiology, Center for Research and Advanced Studi*; Luna-Munguía, Hiram *Center for Research and Advanced Studies*; Bañuelos-Cabrera, Ivette *Dept. of Pharmacobiology, Center for Research and Advanced Studi*; Magdaleno-Madrigal, Victor *Division for Neuroscience Research, National Institute of Psychi*; Tamayo, Mikhail *The Univ. of Sydney*; Rocha, Luisa *Center for Research and Advanced Studies*; Besio, W. G.* *Univ. of Rhode Island*

10:00-11:30 FrBPoT13.4
Identification of Brain Regions of Interest for Epilepsy Surgery Planning using Support Vector Machines
 Dian, Joshua Adam* *Univ. of Toronto*; Colic, Sinisa *Univ. of Toronto*; Chinvarun, Yotin *Director of Comprehensive Epilepsy Program and Neurology Unit, P*; Carlen, Peter L. *Univ. of Toronto*; Bardakjian, Berj *Luther Univ. of Toronto*

10:00-11:30 FrBPoT13.5
Locomotion and Eye Behaviour under Controlled Environment in Individuals with Alzheimer's Disease
 Suzuki, Tatsuto* *Univ. College London*; Yong, Keir *Univ. College London*; Yang, Biao *Univ. College London*; Carton, Amelia *Univ. College London*; McCarthy, Ian *Univ. College London*; Papadosifos, Nikolaos *Univ. College London*; Boamong, Derrick *Univ. College London*; Holloway, Catherine *Univ. College London*; Nick, Tyler *Univ. College London*; Crutch, Sebastian *Univ. College London*

10:00-11:30 FrBPoT13.6
Quantitative EEG Markers in Severe Post-Resuscitation Brain Injury with Therapeutic Hypothermia
 Deng, Ruoxian *Johns Hopkins Univ.*; Young, Leanne *Johns Hopkins Univ.*; Jia, Xiaofeng* *Univ. of Maryland School of Medicine, Johns Hopkins Univ.*

10:00-11:30 FrBPoT13.7
Investigation of Automatically Detected High Frequency Oscillations (HFOs) as an Early Predictor of Seizure Onset Zone
 Liu, Su* *Univ. of Houston*; Ince, Nuri Firat *Univ. of Houston*; Abosch, Aviva *Univ. of Minnesota*; Henry, Thomas *Univ. of Minnesota, Dept. of Neurology*; Sha, Zhiyi *Univ. of Minnesota, Dept. of Neurology*

10:00-11:30 FrBPoT13.8
Optogenetic Control of Thalamus as a Tool for Interrupting Penicillin Induced Seizures
 Han, Yechao *Qiushi Academy for Advanced Studies(QAAS) and College of Biomed*; Ma, Feiqiang *Dept. of Emergency, Second Affiliated Hospital, School of M*; Wang, Yueming *Zhejiang Univ.*; Li, Hongbao *Zhejiang Univ.*; Xu, Kedi* *Zhejiang Univ., Qiushi Academy for Advanced Studies*

10:00-11:30 FrBPoT13.9
Monitoring of Cognitive State on Mental Retardation Child using EEG, ECG and NIRS in Four Years Study
 Zennifa, Fadilla* *Kyushu Univ.*; Iramina, Keiji *Kyushu Univ., Japan*; Ide, Junko *Seinan Gakuin Univ.*; Noguchi, Yukihiro *Seinan Gakuin Univ.*

August 28 Friday

- 10:00-11:30 FrBPoT13.10
Pilot Study of the Cortical Correlates and Clinical Effects of Passive Ankle Mobilisation in Children with Upper Motorneuron Lesions
 Garavaglia, Lorenzo *Institute for Energetics and Interphases, National Research Coun;*; Molteni, Erika *Scientific Institute, IRCCS E. Medea*; Beretta, Elena *IRCCS "E. Medea"*, *Associazione La Nostra Famiglia, Bosisio Parini*; Vassena, Elena *IRCCS E Medea La Nostra Famiglia*; Strazzer, Sandra *IRCCS*; Pittaccio, Simone* *National Research Council of Italy*
- 10:00-11:30 FrBPoT13.11
An EEG Study of Turning Freeze in Parkinson's Disease Patients: The Alteration of Brain Dynamic on the Motor and Visual Cortex
 Handojoseno, Aluysius Maria Ardi* *Univ. of Tech., Sydney*; Gilat, Moran *Parkinson's Disease Research Clinic, Brain and Mind Research Ins*; Ly, Quynh Tran *Univ. of Tech. Sydney*; Chamtie, Hayat *Univ. of Sydney*; Shine, James M. *Parkinson's Disease Research Clinic, Brain and Mind Research Ins*; Nguyen, Tuan Nghia *Univ. of Tech., Sydney*; Tran, Yvonne *Univ. of Tech., Sydney*; Lewis, Simon J.G. *Parkinson's Disease Research Clinic, Brain and Mind Research Ins*; Nguyen, Hung T. *Univ. of Tech., Sydney*
- FrBPoT14: 10:00-11:30 Gold Room
6.39 Brain Functional Imaging III (Poster Session)
- 10:00-11:30 FrBPoT14.1
A Look at the Strength of Micro and Macro EEG Analysis for Distinguishing Insomnia within an HIV Cohort
 Gunnarsdottir, Kristin* *Johns Hopkins Univ.*; Kang, Yu Min *Johns Hopkins Univ.*; Kerr, Matthew *Johns Hopkins Univ.*; Sarma, Sridevi V. *Johns Hopkins Univ.*; Ewen, Joshua *Kennedy Krieger Institute*; Allen, Richard *Johns Hopkins*; Gamaldo, Charlene *Johns Hopkins Univ., School of Medicine*; Salas, Rachel *Johns Hopkins Univ., School of Medicine*
- 10:00-11:30 FrBPoT14.2
To Score or Not to Score? A Look at the Distinguishing Power of Micro EEG Analysis on an Annotated Sample of PSG Studies Conducted in an HIV Cohort
 Kang, Yu Min *Johns Hopkins Univ.*; Gunnarsdottir, Kristin* *Johns Hopkins Univ.*; Kerr, Matthew *Johns Hopkins Univ.*; Salas, Rachel *Johns Hopkins Univ., School of Medicine*; Ewen, Joshua *Kennedy Krieger Institute*; Allen, Richard *Johns Hopkins*; Gamaldo, Charlene *Johns Hopkins Univ., School of Medicine*; Sarma, Sridevi V. *Johns Hopkins Univ.*
- 10:00-11:30 FrBPoT14.3
Modulation of ERD/S by having a Conscious Target during Lower-Extremity Motor Imagery
 Kitahara, Kosuke* *Tokyo Univ. of Agriculture and Technology*; Kondo, Toshiyuki *Tokyo Univ. of Agriculture and Technology*
- 10:00-11:30 FrBPoT14.4
A Novel Approach for Multiscale Source Analysis and Modeling of Epileptic Spikes
 Dümpelmann, Matthias* *Univ. Medical Center Freiburg*; Cosandier-Rimélé, Delphine *Bernstein Center Freiburg*; Ramantani, Georgia *Univ. Medical Center Freiburg, Epilepsy Center*; Schulze-Bonhage, Andreas *Univ. Hospital Freiburg*
- 10:00-11:30 FrBPoT14.5
Toward Non-Hair-Bearing Brain-Computer Interfaces for Neurocognitive Lapse Detection
 Wei, Chun-Shu* *Univ. of California, San Diego*; Wang, Yu-Te *Univ. of California San Diego*; Lin, Chin-Teng *National Chiao-Tung Univ.*; Jung, Tzyy-Ping *Univ. of California San Diego*
- 10:00-11:30 FrBPoT14.6
Extracting Patterns of Single-Trial EEG using an Adaptive Learning Algorithm
 Lin, Chin-Teng *National Chiao-Tung Univ.*; Wang, Yu-Kai* *National Chiao Tung Univ.*; Fang, Chieh-Ning *National Chiao Tung Univ.*; You, Yi-Sin *National Chiao Tung Univ.*; King, Jung-Tai *Brain Research Center of National Chiao Tung Univ.*
- 10:00-11:30 FrBPoT14.7
Activity in the Left Auditory Cortex is Associated with Individual Impulsivity in Time Discounting
 Han, Ruokang *Hokkaido Univ.*; Takahashi, Taiki *Hokkaido Univ.*; Miyazaki, Akane *Hokkaido Univ.*; Kadoya, Tomoka *Hokkaido Univ.*; Kato, Shinya *Hokkaido Univ.*; Yokosawa, Koichi* *Hokkaido Univ.*
- 10:00-11:30 FrBPoT14.8
Acoustic Pressure Reduction at Rhythm Deviants Causes Magnetoencephalographic Response
 Takeshita, Y. *Hokkaido Univ.*; Yokosawa, K.* *Hokkaido Univ.*
- 10:00-11:30 FrBPoT14.9
Responses in Posterior Parietal Cortex to Movement Intention Task with Visual and Tactile Cues
 Kamikawa, Yusuke *Tokyo Univ. of Agriculture and Technology*; Tanaka, Toshihisa* *Tokyo Univ. of Agriculture and Technology*
- FrBPoT15: 10:00-11:30 Gold Room
6.40 Human Performance II (Poster Session)
- 10:00-11:30 FrBPoT15.1
A Saliency based Motion Detection Model of Visual System Considering Visual Adaptation Properties
 Kodama, Mitsuhiro* *Kinki Univ.*; Kohama, Takeshi *Faculty of Biology-Oriented Science and Technology, Kinki Univ.*; Yoshida, Hisashi *Kinki Univ.*
- 10:00-11:30 FrBPoT15.2
Estimation of the Reaction Times in Tasks of Varying Difficulty from the Phase Coherence of the Auditory Steady-State Response using the Least Absolute Shrinkage and Selection Operator Analysis
 Yokota, Yusuke *National Institute of Information and Communications Tech.*; Igarashi, Yasuhiko *The Univ. of Tokyo*; Okada, Masato *The Univ. of Tokyo*; Naruse, Yasushi* *National Institute of Information and Communications Tech.*
- 10:00-11:30 FrBPoT15.3
The Observation of Theta Wave Modulation on Brain Training by 5 Hz-Binaural Beat Stimulation in Seven Days
 Yamsa-ard, T. *Mahidol Univ.*; Wongsawat, Y.* *Mahidol Univ.*
- 10:00-11:30 FrBPoT15.4
The Effect of Lymph Drainage on the Myoelectric Manifestation of Vastus Lateralis Fatigue: Preliminary Results
 Vieira, Taian *Politecnico di Torino*; Readi, Nathali *Società Canottieri ARMIDA*; Schwarcke, Lorenzo *Univ. Federal de Santa Maria*; Botter, Alberto* *Politecnico di Torino*
- 10:00-11:30 FrBPoT15.5
Difficulty-Dependent Trajectory Planning during Target-Reaching Movements
 Yang, Yuan *Sun Yat-sen Univ.*; Song, Rong* *Sun Yat-sen Univ.*
- 10:00-11:30 FrBPoT15.6
Gait Assessment using the Kinect RGB-D Sensor
 Zhao, Jingbo* *York Univ.*; Bunn, Frank *PH.D. Associates Inc.*; Perron, Jacob Michael *Simon Fraser Univ.*; Shen, Edward *Bubl Technology Inc.*; Allison, Robert *York Univ.*
- 10:00-11:30 FrBPoT15.7
A Basic Study on Quantitative Evaluation of 3-Dimensional Foot Contact with an Inertial Sensor for FES Foot Drop Correction
 Shiotani, Maho* *Tohoku Univ.*; Watanabe, Takashi *Tohoku Univ.*
- 10:00-11:30 FrBPoT15.8
Designing Adaptive Integral Sliding Mode Control for Heart Rate Regulation during Cycle-Ergometer Exercise using Bio-Feedback
 Argha, Ahmadsreza* *Univ. of Technology, Sydney*; Su, Steven *Weidong Univ. of Technology, Sydney*; Nguyen, Hung T. *Univ. of Technology, Sydney*; Celler, Branko *George Univ. of New South Wales*

- 10:00-11:30 FrBPoT15.9
Ambiguity Involving Two Illusory Melodies Induced by a Simple Configuration of Tones
Nemoto, I.* *Tokyo Denki Univ.*; Yuhara, R. *Tokyo Denki Univ.*
- 10:00-11:30 FrBPoT15.10
Development of the Obstacle Detection System Combining Orientation Sensor of Smartphone and Distance Sensor
Tange, Yutaka* *Maizuru National College of Tech*; Takeno, Shunuke *Nagaoka Univ. of Technology*; Hori, J. *Niigata Univ.*
- 10:00-11:30 FrBPoT15.11
EEG Feature Variations under Stress Situations
Merino, Manuel* *Univ. of Seville*; Molina, Alberto *Univ. of Seville*; Gomez Gonzalez, Isabel Maria *Univ. de Sevilla*
- FrBPoT16: 10:00-11:30 Gold Room
8.22 New Technologies and Methodologies in Human Movement Analysis II (Poster Session)
- 10:00-11:30 FrBPoT16.1
Effect of Homogenous Object Stiffness on Tri-Digit Grasp Properties
Godfrey, Sasha Blue* *Istituto Italiano di Tecnologia*; Altobelli, Alessandro *Istituto Italiano di Tecnologia*; Rossi, Matteo *Istituto Italiano di Tecnologia*; Bicchi, Antonio *Univ. of Pisa*
- 10:00-11:30 FrBPoT16.2
Machine Learning Methods for Credibility Assessment of Interviewees based on Posturographic Data
Saripalle, Sashi* *Univ. of Missouri - Kansas City*; Vemulapalli, Spandana *Univ. of Missouri - Kansas City*; King, Gregory *Univ. of Missouri Kansas City*; Burgoon, Judee *Univ. of Arizona*; Derakhshani, Reza *Univ. of Missouri Kansas City*
- 10:00-11:30 FrBPoT16.3
3D Position Estimation using a Single Coil and Two Magnetic Field Sensors
Tadayon, Puian* *Dortmund Univ. of Applied Sciences and Arts*; Staude, Gerhard *Univ. AF Munich*; Felderhoff, Thomas *Dortmund Univ. of Applied Sciences and Arts*
- 10:00-11:30 FrBPoT16.4
Lumbar Joint Torque Estimation based on Motion Measurement using Multiple Inertial Sensors
Miyajima, Saori* *Hokkaido Univ.*; Tanaka, Takayuki *Hokkaido Univ.*; Imamura, Yumeko *The Natl. Inst. of Advanced Industrial Science and Techno*; Kusaka, Takashi *Hokkaido Univ.*
- 10:00-11:30 FrBPoT16.5
Development and Preliminary Testing of an Instrumented Object for Force Analysis during Grasping
Romeo, Rocco Antonio* *Univ. Campus Bio-Medico di Roma*; Cordella, Francesca *Univ. of Naples Federico II*; Zollo, Loredana *Univ. Campus Bio-Medico*; Formica, Domenico *Campus Bio-Medico Univ.*; Saccamandi, Paola *Univ. Campus Bio-Medico of Rome*; Schena, Emiliano *Univ. of Rome Campus Bio-Medico*; Carpino, Giorgio *Campus Bio-Medico Univ.*; Davalli, Angelo *INAIL Prosthesis Center*; Sacchetti, Rinaldo *Centro Protesi INAIL, Budrio*; Guglielmelli, Eugenio *Campus Bio-Medico Univ.*
- FrBPoT17: 10:00-11:30 Gold Room
8.23 Joint Biomechanics (Poster Session)
- 10:00-11:30 FrBPoT17.1
A Kicking Simulator to Investigate the Foot-Ball Interaction during a Rugby Place Kick
Minnaar, Nick *Stellenbosch Univ.*; Van Den Heever, Dawie* *Stellenbosch Univ.*
- 10:00-11:30 FrBPoT17.2
Statically vs Dynamically Balanced Gait, Analysis of a Robotic Exoskeleton Compared with a Human
Barbareschi, Giulia* *Univ. College London*; Richards, Rosie *VU Univ. Medical Centre*; Thornton, Matt *Royal National Orthopaedic Hospital, NHS Trust Brockley Hill St*; Carlson, Tom *Univ. College London*; Holloway, Catherine *Univ. College London*
- 10:00-11:30 FrBPoT17.3
EMG-Based Learning Approach for Estimating Wrist Motion
El-Khoury, Sahar *EPFL*; Batzianoulis, Iason* *EPFL*; Antuvan, Chris Wilson *Nanyang Technological Univ.*; Contu, Sara *NTU*; Masia, Lorenzo *Nanyang Technological Univ.*; Micera, Silvestro *Scuola Superiore Sant'Anna*; Billard, Aude *EPFL, LASA*
- 10:00-11:30 FrBPoT17.4
Development of a Phantom Mimicking the Functional and Structural Behaviors of the Thigh Muscles Characterized with Magnetic Resonance Elastography Technique
Bensamoun, Sabine* *UTC*; Chakouch, Mashhour *Univ. of Technology of Compiègne*; Charleux, Fabrice *ACRIM-Polyclinique St Côme*
- 10:00-11:30 FrBPoT17.5
Time-Varying Identification of Ankle Dynamic Joint Stiffness during Movement with Constant Muscle Activation
Guarin, Diego Luis* *McGill Univ.*; Kearney, Robert Edward *McGill Univ.*
- 10:00-11:30 FrBPoT17.6
Identification of Time-Varying Dynamics of Reflex EMG in the Ankle Plantarflexors during Time-Varying, Isometric Contractions
Golkar, Mahsa* *McGill Univ*; Jalaeddini, Kian *McGill Univ.*; Sobhani Tehrani, Ehsan *McGill Univ.*; Kearney, Robert Edward *McGill Univ.*
- 10:00-11:30 FrBPoT17.7
Configuration Space Analysis of Elbow and Forearm Motion
Feibel, Benjamin *LSUHealth Shreveport*; Hollister, Anne M.* *LSU Health Sciences Center*; Storey, Christopher M. *Louisiana Tech Univ.*; Dyess-Tregre, Alyssa *LA Tech Univ.*; O'Neal, D. Patrick *Louisiana Tech Univ.*; Ogden, Alan *LSUHealth Shreveport*; Unukpo, Akpofure *LA Tech Univ.*
- FrBPoT18: 10:00-11:30 Gold Room
8.24 Mechanics of Locomotion and Balance II (Poster Session)
- 10:00-11:30 FrBPoT18.1
Recovery Response Latencies to Tripping Perturbations during Gait Decrease with Practice
Former-Cordero, Arturo* *Polytechnic School. Univ. of Sao Paulo*; van der helm, Frans C.T. *Delft Univ. of Technology*; Koopman, Bart *Univ. of Twente*; Duysens, Jacques *KU-Leuven, FABER*
- 10:00-11:30 FrBPoT18.2
Predicting Daily Gait Behaviors after Anterior Cruciate Ligament Surgery: A Case Study
Wade, Eric* *Univ. of Tennessee*; Lin, Paige E. *Univ. of Southern California*; Hemmati, Sadra *Univ. of Tennessee at Knoxville*; Sigward, Susan *Division of Biokinesiology & Physical Therapy at the Univ.*
- 10:00-11:30 FrBPoT18.3
Investigation of Adaptive Split-Belt Treadmill Walking by the Hindlimbs of Rats
Fujiki, Soichiro* *Kyoto Univ.*; Aoi, Shinya *Kyoto Univ.*; Yanagihara, Dai *The Univ. of Tokyo*; Funato, Tetsuro *The Univ. of Electro-Communications*; Sato, Yota *The Univ. of Electro-Communications*; Senda, Kei *Kyoto Univ.*; Tsuchiya, Kazuo *Kyoto Univ.*
- 10:00-11:30 FrBPoT18.4
Classification of Older Adults with/without a Fall History using Machine Learning Methods
Zhang, L.* *New Mexico State Univ.*; Ma, O. *New Mexico State Univ.*; Fabre, J. *New Mexico State Univ.*; Wood, R. *New Mexico State Univ.*; Garcia, S. *New Mexico State Univ.*; Ivey, K. *New Mexico State Univ.*; McCann, E. *New Mexico State Univ.*
- FrBPoT19: 10:00-11:30 Gold Room
10.15 Personal Health Systems (Poster Session)
- 10:00-11:30 FrBPoT19.1
Design of a Breathing Mattress based on the Respiratory Movement of Kangaroo Mother Care for the Development of Neonates
Chen, W.* *Eindhoven Univ. of Tech.*; Bambang Oetomo, S. *Máxima Medical Center*; Schets, M. *Eindhoven Univ. of Tech.*

10:00-11:30	FrBPoT19.2	Respiratory Signal Derived from the Smartphone Built-In Accelerometer during a Respiratory Load Protocol Estrada, Luis* <i>Univ. Politècnica de Catalunya</i> ; Torres, Abel <i>Univ. Politècnica de Catalunya</i> ; Sarlabous, Leonardo <i>Univ. Politècnica de Catalunya (UPC)</i> ; Jané, Raimon <i>Institute de Bioenginyeria de Catalunya (IBEC)</i>	10:00-11:30	FrBPoT20.3	Automated Information Extraction from Free-Text EEG Reports Biswal, Siddharth <i>MGH</i> ; Nip, Zarina <i>MGH</i> ; Moura Junior, Valdey <i>MGH</i> ; Bianchi, Matt T. <i>Dept. of Neurology, Massachusetts General Hospital -Harvard</i> ; Rosenthal, Eric <i>MGH</i> ; Westover, Brandon* <i>Massachusetts General Hospital</i>
10:00-11:30	FrBPoT19.3	Implementation of a Smartphone Wireless Accelerometer Platform for Establishing Deep Brain Stimulation Treatment Efficacy of Essential Tremor with Machine Learning LeMoyné, Robert* <i>Northern Arizona Univ.</i> ; Tomycz, Nestor <i>Univ. of Pittsburgh</i> ; Mastroianni, Timothy <i>Independent</i> ; McCandless, Cyrus <i>Sentient Decision Science</i> ; Cozza, Michael <i>Converge Robotics Corporation</i> ; Peduto, David <i>Special Psychological Applications</i>	10:00-11:30	FrBPoT20.4	Post-Surgical Complication Prediction in the Presence of Low-Rank Missing Data Wu, Hang <i>Georgia Institute of Technology</i> ; Cheng, Chihwen <i>Georgia Institute of Technology</i> ; Han, Xiaoning <i>Peking Univ. First Hospital</i> ; Huo, Yong <i>Peking Univ. First Hospital</i> ; Ding, Wenhui <i>Peking Univ. First Hospital</i> ; Wang, May D.* <i>Georgia Tech and Emory Univ.</i>
10:00-11:30	FrBPoT19.4	Visual Methods to Assess Cold Fingers and Experimental Verification Ishikawa, Kyoko <i>Seikei Univ.</i> ; Shimoyama, Natsuki <i>Seikei Univ.</i> ; Mannen, Hiromi <i>Seikei Univ.</i> ; Kuwabara, Kei <i>Nippon Telegraph and Telephone Corporation</i> ; Matsuo, Hiroto <i>Nippon Telegraph and Telephone Corporation</i> ; Oguchi, Kimio* <i>Seikei Univ.</i>	10:00-11:30	FrBPoT20.5	How to Extract Clinically Useful Information from Large Amount of Dialysis Related Stored Data Vito, Domenico* <i>Politecnico di Milano</i> ; Casagrande, Giustina <i>Politecnico di Milano</i> ; Bianchi, Camilla <i>Politecnico di Milano</i> ; Costantino, MariaLaura <i>Politecnico di Milano</i>
10:00-11:30	FrBPoT19.5	Portable Electrocardiograph through Android Application Balbinot, Alexandre <i>Federal Univ. of Rio Grande do Sul (UFRGS)</i> ; Oliveira, Igor H. de <i>UFRGS</i> ; Cene, Vinicius H.* <i>UFRGS</i>	10:00-11:30	FrBPoT20.6	A Proposal for Improvement of Genotyping Performance for Ethnically Homogeneous Population using DNA Microarray Fukushima, Arika* <i>Toshiba Corporation</i> ; Paul, Topon <i>Toshiba Corporation</i> ; Shingaki, Ryusei <i>Toshiba</i> ; Koiso, Takashi <i>Toshiba Corporation</i> ; Umeno, Shinya <i>Toshiba Corp.</i> ; Ueno, Ken <i>Toshiba Corporation, Japan</i> .
10:00-11:30	FrBPoT19.6	Online and Automated Reliable System Design to Remove Blink and Muscle Artefact in EEG Bhardwaj, Swati <i>Indian Institute of Tech. Hyderabad</i> ; Jadhav, Pranit <i>IIT Hyderabad</i> ; Adapa, Bhagyaraja <i>Indian Institute of Tech. Hyderabad</i> ; Acharyya, Amit* <i>Indian Institute of Tech. Hyderabad</i> ; Naik, Ganesh R <i>Univ. of Tech. Sydney</i>	10:00-11:30	FrBPoT20.7	Comparison between Decision Tree and Genetic Programming to Distinguish Healthy from Stroke Postural Sway Patterns Marrega, Luiz Henrique Giovanini <i>Pontificia Univ. Católica do Paraná</i> ; Silva, Simone <i>Massaneiro Pontificia Univ. Católica do Paraná</i> ; Manfra, Elisangela F.* <i>Pontificia Univ. Católica Do Paraná</i> ; Nievola, Julio Cesar <i>Pontificia Univ. Católica do Paraná</i>
10:00-11:30	FrBPoT19.7	Designing a Patient Monitoring System for Bipolar Disorder using Semantic Web Technologies Thermolia, Chryssa <i>TUC</i> ; Bei, Ekaterini <i>Technical Univ. of Crete</i> ; Petrakis, Euripides <i>Technical Univ. of Crete</i> ; Kritsotakis, Vangelis <i>Foundation for Research and Technology - Hellas (FORTH)</i> ; Tsiknakis, Manolis <i>ICS-FORTH</i> ; Sakkalis, Vangelis* <i>ICS-FORTH</i>	10:00-11:30	FrBPoT20.8	Clustering Emergency Department Patients – An Assessment of Group Normality Schmidt, Thomas* <i>Univ. of Southern Denmark</i> ; Lassen, Annmarie <i>Odense Univ. Hospital</i> ; Hallam, John <i>Univ. of Southern Denmark</i> ; Wiil, Uffe Kock <i>Univ. of Southern Denmark</i>
10:00-11:30	FrBPoT19.8	Improvement of Emotional Healthcare System with Stress Detection from ECG Signal Tivatansakul, Somchanok* <i>Shibaura Institute of Technology</i> ; Ohkura, Michiko <i>Shibaura Institute of Technology</i>	10:00-11:30	FrBPoT20.9	Explicu: A Web-Based Visualization and Predictive Modeling Toolkit for Mortality in Intensive Care Patients Chen, Robert* <i>Georgia Institute of Technology</i> ; Kumar, Vikas <i>Georgia Institute of Technology</i> ; Fitch, Natalie <i>Georgia Institute of Technology</i> ; Jagadish, Jitesh <i>Georgia Institute of Technology</i> ; Zhang, Lifan <i>Emory Univ.</i> ; Dunn, William <i>Emory Univ.</i> ; Chau, Duen Horng <i>Georgia Institute of Technology</i>
FrBPoT20: 10:00-11:30		Gold Room	FrBPoT21: 10:00-11:30		
10.16 Data Mining (Poster Session)			Gold Room		
10:00-11:30	FrBPoT20.1	Prediction of Happy-Sad Mood from Daily Behaviors and Previous Sleep History Sano, Akane* <i>Massachusetts Institute of Technology</i> ; Yu, Amy Zhao <i>Massachusetts Institute of Technology</i> ; McHill, Andrew <i>Brigham and Women's Hospital/Harvard Medical School</i> ; Phillips, Andrew J. K. <i>Brigham and Women's Hospital, Harvard Medical School</i> ; Taylor, Sara <i>Massachusetts Institute of Technology</i> ; Jaques, Natasha <i>Massachusetts Institute of Technology</i> ; Klerman, Elizabeth B. <i>Division of Sleep Medicine, Brigham and Women's Hospital -Harvar</i> ; Picard, Rosalind <i>Massachusetts Institute of Technology</i>	10:00-11:30	FrBPoT21.1	Using a Generalised Identity Reference Model with Archetypes to Support Interoperability of Demographics Information in Electronic Health Record Systems Chen, Xu* <i>Dublin Institute of Technology</i> ; Berry, Damon <i>Dublin Institute of Technology</i> ; Stephens, Gaye <i>Trinity College Dublin</i>
10:00-11:30	FrBPoT20.2	Assessment of Cardiovascular Risk based on a Data-Driven Knowledge Discovery Approach Mendes, Diana* <i>Univ. de Coimbra</i> ; Paredes, Simao <i>Instituto Politécnico de Coimbra</i> ; Rocha, Teresa <i>Inst Superior de Eng de Coimbra</i> ; de Carvalho, Paulo <i>Univ. of Coimbra - NIF</i> ; Henriques, Jorge <i>Univ. of Coimbra - NIF</i> ; Cabiddu, Ramona <i>Politecnico di Milano</i> ; Morais, João <i>Hospital de Santo André, Leiria</i>	10:00-11:30	FrBPoT21.2	Analysis of Daily Oxygen Saturation for Detecting Deterioration in the Condition of COPD Patients Clarke, Malcolm* <i>Brunel Univ.</i> ; Gokalp, Hulya <i>Brunel Univ.</i>
10:00-11:30	FrBPoT20.2	Assessment of Cardiovascular Risk based on a Data-Driven Knowledge Discovery Approach Mendes, Diana* <i>Univ. de Coimbra</i> ; Paredes, Simao <i>Instituto Politécnico de Coimbra</i> ; Rocha, Teresa <i>Inst Superior de Eng de Coimbra</i> ; de Carvalho, Paulo <i>Univ. of Coimbra - NIF</i> ; Henriques, Jorge <i>Univ. of Coimbra - NIF</i> ; Cabiddu, Ramona <i>Politecnico di Milano</i> ; Morais, João <i>Hospital de Santo André, Leiria</i>	10:00-11:30	FrBPoT21.3	Future Trends in Picture Archiving and Communication System (PACS) Alhajeri, Mona <i>Brunel Univ.</i> ; Clarke, Malcolm* <i>Brunel Univ.</i>

10:00-11:30	FrBPoT21.4	An Mhealth System for Toxicity Monitoring of Paediatric Oncological Patients using Near Field Communication Technology Duregger, Katharina* <i>AIT Austrian Institute of Technology</i> ; Hayn, Dieter <i>AIT Austrian Institute of Technology</i> ; Morak, Jürgen Markus <i>AIT Austrian Institute of Technology</i> ; Ladenstein, Ruth <i>Children's Cancer Research Institute</i> ; Schreier, Guenter <i>AIT Austrian Institute of Technology GmbH</i>	10:00-11:30	FrBPoT22.6	3D vs 2D Laparoscopic Systems: Development of a Performance Quantitative Validation Model Ghedì, Andrea* <i>Azienda Ospedaliera Treviglio</i> ; Donarini, Erica <i>Azienda Ospedaliera Treviglio</i> ; Lamera, Roberta <i>Azienda Ospedaliera Treviglio</i> ; Sgroi, Giovanni <i>Azienda Ospedaliera Treviglio</i> ; Turati, Luca <i>Azienda Ospedaliera Treviglio</i> ; Ercole, Cesare <i>Azienda Ospedaliera Treviglio</i>
10:00-11:30	FrBPoT21.5	Impact of Hierarchies of Clinical Codes on Predicting Future Days in Hospital Xie, Yang <i>The Univ. of New South Wales</i> ; Neubauer, Sandra <i>Austrian Institute of Technology</i> ; Schreier, Guenter <i>AIT Austrian Institute of Technology GmbH</i> ; Redmond, Stephen James <i>Univ. of New South Wales</i> ; Lovell, N.H.* <i>Univ. of New South Wales</i>	FrBPoT23: 10:00-11:30 Gold Room 9.19 Cancer Therapies: Radiation, Photodynamic Therapies and Electric Fields (Poster Session)		
10:00-11:30	FrBPoT21.6	Human-Centered Design of a Cyber-Physical System for Advanced Response to Epidemics Dimitrov, Velin <i>Worcester Polytechnic Institute</i> ; Jagtap, Vinayak <i>Worcester Polytechnic Institute</i> ; Skorinko, Jeanine <i>Worcester Polytechnic Institute</i> ; Chernova, Sonia <i>Worcester Polytechnic Institute</i> ; Gennert, Michael <i>Worcester Polytechnic Institute</i> ; Padir, Taskin* <i>Worcester Polytechnic Institute</i>	10:00-11:30	FrBPoT23.1	Modelling Tumor Treating Fields for the Treatment of Lung-Based Tumors Bomzon, Ze'ev* <i>Novocure</i> ; Urman, Noa <i>Novocure</i> ; Wenger, Cornelia <i>Faculty of Science, Univ. of Lisbon</i> ; Giladi, Moshe <i>Novocure</i> ; Weinberg, Uri <i>Novocure</i> ; Wasserman, Yoram <i>Company</i> ; Kirson, Eilon David <i>Novocure</i> ; Miranda, Pedro <i>Faculty of Science, Univ. of Lisbon</i> ; Palti, Yoram <i>Novocure</i>
10:00-11:30	FrBPoT21.7	A Reliability Assessment Software using Kinect to Complement the Clinical Evaluation of Parkinson's Disease Navarro, Andres* <i>Univ. Icesi</i> ; Arango Paredes, Juan David <i>Univ. Icesi</i> ; Munoz, Beatriz <i>Fundacion Clinica Valle del Lili</i> ; Agredo, Wilfredo <i>Univ. Autonoma de Occidente</i> ; Ariza, Yoseth <i>Univ. Icesi</i> ; Orozco, Jorge Luis <i>Fundacion Clinica Valle del Lili</i>	10:00-11:30	FrBPoT23.2	Modeling Tumor Treating Fields (TTFields) Application in Single Cells during Metaphase and Telophase Wenger, Cornelia* <i>Faculdade de Ciências, Univ. de Lisboa</i> ; Giladi, Moshe <i>Novocure</i> ; Bomzon, Ze'ev <i>Novocure</i> ; Salvador, Ricardo <i>Univ. of Lisbon</i> ; Basser, Peter <i>NIH</i> ; Miranda, Pedro <i>Faculty of Science, Univ. of Lisbon</i>
FrBPoT22: 10:00-11:30 Gold Room 9.18 Surgery and Robotics (Poster Session)			10:00-11:30	FrBPoT23.3	Neutron Distribution and Induced Activity Inside a Linac Treatment Room Juste, Belen* <i>Polytechnic Univ. of Valencia</i> ; Miró, Rafael <i>Polytechnic Univ. of Valencia</i> ; Verdú, Gumersindo <i>Polytechnic Univ. of Valencia</i> ; Díez, Sergio <i>Hospital Clínic de València</i> ; Campayo, Juan Manuel <i>Hospital Clínic de València</i>
10:00-11:30	FrBPoT22.1	Implementation of New Dry Electrodes and Comparison with Conventional Ag/AgCl Electrodes for Whole Body Electrical Bioimpedance Application Dassonville, Yohan* <i>Univ. Savoie Mont Blanc- SYMME</i> ; Barthod, Christine <i>SYMME</i> ; Passard, Michelle <i>Univ. Savoie Mont Blanc- SYMME</i>	10:00-11:30	FrBPoT23.4	Analysis of Low Intensity Laser Therapy as Adjuvant to Photodynamic Therapy in Nonmelanoma Skin Cancer Fanjul-Vélez, Félix <i>Univ. of Cantabria</i> ; Salas-García, Irene <i>Univ. of Cantabria</i> ; Torre-Celeizábal, Claudia <i>Univ. of Cantabria</i> ; Zverev, M. <i>Univ. of Cantabria</i> ; Arce-Diego, J.L.* <i>Univ. of Cantabria</i>
10:00-11:30	FrBPoT22.2	Development of an Excretion Care Support Robot with Human Cooperative Characteristics Wang, Yina* <i>Kochi Univ. of Technology, School of System Engineering</i> ; Wang, Shuoyu <i>Kochi Univ. of Technology</i>	10:00-11:30	FrBPoT23.5	A Dual-Use Imaging System for Pre-Clinical Small Animal Radiation Research Li, Meng* <i>Johns Hopkins Univ.</i> ; He, Xingchi <i>Johns Hopkins Univ.</i> ; Eslami, Sohrab <i>Johns Hopkins Univ.</i> ; Wang, Ken Kang-Hsin <i>Johns Hopkins Univ.</i> ; Zhang, Bin <i>Johns Hopkins Univ.</i> ; Wong, John W <i>Johns Hopkins Univ.</i> ; lordachita, Iulian <i>Johns Hopkins Univ.</i>
10:00-11:30	FrBPoT22.3	Surgical Energy Device using Steam Jet for Robotic Assisted Surgery Hitoshi, Yoshiki* <i>Tokyo Institute of Technology</i> ; Tadano, Kotaro <i>Tokyo Institute of Technology</i> ; Ban, Daisuke <i>Tokyo Medical and Dental Univ.</i> ; Ohuchi, Katsuhiro <i>Tokyo Medical and Dental Univ.</i> ; Tanabe, Minoru <i>Tokyo Medical and Dental Univ.</i> ; Kawashima, Kenji <i>Tokyo Medical and Dental Univ.</i>	FrBPoT24: 10:00-11:30 Gold Room 9.20 Stimulation Technologies (Poster Session)		
10:00-11:30	FrBPoT22.4	A Multi-Techniques Approach to Assess Reprocessing of Single-Use Electrosurgical Pencils Tessarolo, Francesco <i>Univ. of Trento</i> ; Torres, Sebastian <i>Antioquia School of Engineering – CES Univ.</i> ; Ballesteros, Luis <i>Antioquia School of Engineering – CES Univ.</i> ; Rigoni, Marta <i>Bruno Kessler Foundation</i> ; Piccoli, Federico <i>Azienda Provinciale per i Servizi Sanitari</i> ; Caola, Iole <i>Azienda Provinciale per i Servizi Sanitari</i> ; Montoya, Yesid <i>Antioquia School of Engineering – CES Univ.</i> ; Nollo, Giandomenico* <i>Univ. of Trento</i>	10:00-11:30	FrBPoT24.1	Preclinical Evaluation of a Miniaturized Deep Brain Stimulation Electrode Lead Villalobos, Joel* <i>Bionics Institute</i> ; Fallon, James <i>Bionics Institute</i> ; McNeill, Peter <i>Malcolm St Vincent's Hospital Melbourne</i> ; Allison, Rachel <i>Kim Monash Univ.</i> ; Bionics Institute; Bibari, Olivier <i>CEA</i> ; Williams, Chris E. <i>Bionics Institute</i> ; McDermott, Hugh <i>Bionics Institute</i>
10:00-11:30	FrBPoT22.5	Design, Development and Characterization of a Modular End Effector for MIS Procedures Izzo, Antonio <i>The BioRobotics Institute, Scuola Superiore Sant'Anna</i> ; Tortora, Giuseppe* <i>Scuola Superiore Sant'Anna</i> ; Dario, Paolo <i>Scuola Superiore Sant'Anna</i> ; Menciassi, Arianna <i>Scuola Superiore Sant'Anna</i>	10:00-11:30	FrBPoT24.2	A Microfabricated Coil for Implantable Applications of Magnetic Spinal Cord Stimulation Fu, Yu-Min <i>National Chiao Tung Univ.</i> ; Chen, Che-Yu <i>National Chiao Tung Univ.</i> ; Qian, Xin-Hong <i>National Chiao Tung Univ.</i> ; Cheng, Yu-Ting* <i>National Chiao Tung Univ.</i> ; Wu, Chung-Yu <i>National Chiao Tung Univ.</i> ; Sun, Jui-Sheng <i>National Taiwan Univ. Hospital</i> ; Huang, Chien-Chun <i>National Chiao Tung Univ.</i> ; Hu, Chao-Kai <i>MacKay Memorial Hospital</i>

- 10:00-11:30 FrBPoT24.3
Low-Latency System for Evaluation of Image-Enhancement- Algorithms on Patients using Subretinal Implants
 Rieger, Viola* *Univ. of Ulm*; Buntz, Fabian *Institute of Microelectronics, Univ. of Ulm*; Feller, Christian *Institute of Microelectronics, Univ. of Ulm*; Rothermel, Albrecht *Univ. of Ulm*
- 10:00-11:30 FrBPoT24.4
Study of Intracranial Pressure in Human Brain during Transcranial Magnetic Stimulation
 Honrath, Marc *Wilkes Univ.*; Sabouni, Abas* *Wilkes Univ.*
- 10:00-11:30 FrBPoT24.5
How Electrode Montage Affects Transcranial Direct Current Stimulation of the Human Motor Cortex
 Salvador, Ricardo* *Institute of Biophysics and Biomedical Engineering (IBEB), Univ.*; Wenger, Comelia *Faculdade de Ciências, Univ. de Lisboa*; Nitsche, Michael A. *Georg-August- Univ., Goettingen*; Miranda, Pedro Cavaleiro *Faculdade de Ciências, Univ. de Lisboa*
- 10:00-11:30 FrBPoT24.6
Optimization of Coil Geometries for Bone Fracture Healing via Dielectrophoretic Force Stimulation – A Simulation Study
 Kibritoglu, E.* *Boğaziçi Univ.*; Gülçür, H.Ö. *Boğaziçi Univ.*
- FrDT1: 12:45-14:15 Brown 1
5.M2 Cuff-Less Blood Pressure Monitoring via Pulse Transit Time I: Standardization, Theory and Clinical Significance (Minisymposium)
Chair: Di Rienzo, Marco *Fondazione Don Carlo Gnocchi*
Co-Chair: Parati, Gianfranco *Univ. degli Studi di Milano-Bicocca*
- 12:45-13:00 FrDT1.1
Review of the Pulse Transit Time-Blood Pressure Relationship
 Mukkamala, Ramakrishna* *Michigan State Univ.*; Hahn, Jin-Oh *Univ. of Maryland*
- 13:00-13:15 FrDT1.2
Pulse Transit Time, Pulse Wave Velocity and Pulse Contour: Derived Features and Clinical Relevance
 Avolio, Alberto P* *Macquarie Univ.*
- 13:15-13:30 FrDT1.3
Blood Pressure Determination using the Pulse Transit Time: Validation of the Method and Application in Sleep Medicine
 Patzak, Andreas* *Charité-Univ. Medizin Berlin*
- 13:30-13:45 FrDT1.4
Pulse Transit Time: Measurement of Cuff-Less Blood Pressure and Related Vascular Indices
 Poon, Carmen CY* *The Chinese Univ. of Hong Kong*
- 13:45-14:00 FrDT1.5
Cuff-Less BP Measure from the Pulse Transit Time: What Clinical Role? Validation According to a Protocol of the European Society of Hypertension
 Parati, Gianfranco* *Univ. degli Studi di Milano-Bicocca*; Zorzi, Cristina *Istituto Auxologico Italiano*; Giuli, Valentina *Istituto Auxologico Italiano*; Torlasco, Camilla *Istituto Auxologico Italiano*; Ochoa, Juan Eugenio *Istituto Auxologico Italiano*; Di Rienzo, Marco *Fondazione Don Carlo Gnocchi*; Bilo, Grzegorz *Istituto Auxologico Italiano*
- FrDT2: 12:45-14:15 Brown 2
12.M4 Current Trends in Fall Prediction and Prevention Technologies (Minisymposium)
Chair: Chiari, Lorenzo *University of Bologna*
Co-Chair: Lovell, Nigel H. *University of New South Wales*
- 12:45-13:00 FrDT2.1
Mobility and Movement Complexity Change with Ageing and Risk of Falling
 Paraschiv-Ionescu, Anisoara* *Ecole Polytechnique Federale*; Büla, Christophe *CHUV CUTR Sylvana*; Major, Kristof *CHUV*; Krief, Helene *CHUV*; Moufawad el Achkar, Christopher *Ecole Polytechnique Federal de Lausanne*; Aminian, Kamiar *Ecole Polytechnique Federale*
- 13:00-13:15 FrDT2.2
Technologies Supporting Fall Risk Management Process
 Immonen, Milla Sinikka* *VTT Technical Research Centre of Finland*; Similä, Heidi *VTT Technical Research Centre of Finland Ltd*; Arabiurrutia Altube, Elixabete *Hospital La Fuenfría*; Eklund, Patrik *FourComputing Oy*; Johansson, Lars-Åke *Alkit Communications*; García-Gordillo, Carlos *Freelance Management Consultant*
- 13:15-13:30 FrDT2.3
Knowledge Gaps in Falls Research
 Becker, Clemens* *Robert Bosch Hospital, Stuttgart*; Chiari, Lorenzo *Univ. of Bologna*; Klenk, Jochen *Dept. of Clinical Gerontology, Robert Bosch Hospital, Stutt*
- 13:30-13:45 FrDT2.4
Towards a New Generation of Prognostic Tools for Falls Incorporating Sensor-Based Activity Features
 Palumbo, Pierpaolo *DEI - Univ. of Bologna*; Palmerini, Luca *Univ. of Bologna*; Mellone, Sabato *Univ. of Bologna*; Chesani, Federico *DISI - Univ. of Bologna*; Cattelani, Luca *Univ. of Bologna*; Bandinelli, Stefania *Laboratory of Clinical Epidemiology, Azienda Sanitaria Firenze*; Chiari, Lorenzo* *Univ. of Bologna*
- 13:45-14:00 FrDT2.5
Measuring Gait in Older Adults using a Single Ankle-Worn Inertial Sensor
 Wang, Kejia *Univ. of New South Wales*; Del Rosario, Michael Benjamin *Univ. of New South Wales*; Hirth, Sylvain *EPFL*; Delbaere, Kim *Neuroscience Research Australia, UNSW*; Brodie, Matthew Andrew *Dalhousie Neuroscience Research Australia, UNSW*; Lovell, Nigel H. *Univ. of New South Wales*; Kark, Lauren *Graduate School of Biomedical Engineering*; Lord, Stephen *Univ. of New South Wales*; Redmond, Stephen James* *Univ. of New South Wales*
- FrDT5: 12:45-14:15 Amber 2
12.M1 Optimizing Point of Care Engagement I (Minisymposium)
Co-Chair: Pai, Vinay *National Institutes of Health*
- 12:45-13:00 FrDT5.1
On Body and in Body Devices Transforming Healthcare: Challenges in the Development of Miniature Antennas for Implantable Devices
 Nikita, Konstantina* *National Technical Univ. of Athens*
- 13:00-13:15 FrDT5.2
Point-of-Care Devices for Authentication of Medical Data Streams
 Tridandapani, Srini* *Emory Univ.*; Bhatti, Pamela *Georgia Institute of Technology*
- 13:15-13:30 FrDT5.3
Adoption of POCTs in Primary Care: Facilitators and Barriers
 Stahl, James *Massachusetts General Hospital*; Carleton, Penny* *CIMIT*
- 13:30-13:45 FrDT5.4
Chemical Bio-Sensing with Mobile Technologies: A Non-Invasive and Inexpensive Mobile Sensor for the Monitoring of COPD and Other Pulmonary Diseases
 Forzani, Erica* *Arizona State Univ.*; Bridgeman, Devon *Arizona State Univ.*; Zhao, Di *Arizona State Univ.*; Tsow, Francis *Arizona State Univ.*; Xian, Xiaojun *Arizona State Univ.*
- 13:45-14:00 FrDT5.5
Embrace: Learning about Stress, Sleep, and Seizures with a Wrist-Worn Device
 Picard, Rosalind* *Massachusetts Institute of Technology*
- FrDT7: 12:45-14:15 Amber 4
10.M3 mHealth Review: Cross-Disciplinary Technologies, Deployments and Future Trends (Minisymposium)
Chair: Casson, Alexander James *The University of Manchester*
- 12:45-13:00 FrDT7.1
Ultra Low Power Signal Processing in Mhealth: Opportunities and Challenges
 Casson, Alexander James* *The Univ. of Manchester*

13:00-13:15	FrDT7.2	NFC to Facilitate the Internet of Things for pHealth Schreier, Guenter* <i>AIT Austrian Institute of Technology GmbH</i>	13:30-13:45	FrDT9.4	Carotid Baroreceptor Stimulation by Neck Suction during FMRI Investigation: Methodological Issues Calcagnini, Giovanni <i>Italian National Institute of Health</i> ; Mattei, Eugenio <i>Italian National Institute of Health</i> ; Bozzali, Marco <i>Santa Lucia Foundation</i> ; Triventi, Michele <i>Italian National Institute of Health</i> ; Mancini, Matteo* <i>Univ. degli Studi di Roma Tre</i> ; Censi, Federica <i>Italian National Institute of Health</i> ; Barbieri, Riccardo <i>MGH-Harvard Medical School-MIT</i>		
13:15-13:30	FrDT7.3	Gaussian Processes for Monitoring Patients with Mobile Sensors Clifton, David* <i>Univ. of Oxford</i> ; Clifton, Lei <i>Univ. of Oxford</i>	13:45-14:00	FrDT9.5	Revealing Brain Correlates of Autonomic Modulation by Combining Point Process Models of Heartbeat Dynamics with FMRI Barbieri, Riccardo* <i>MGH-Harvard Medical School-MIT</i> ; Sclocco, Roberta <i>Politecnico di Milano</i> ; Napadow, Vitaly <i>Massachusetts General Hospital</i>		
13:30-13:45	FrDT7.4	Data Quality in Mhealth Karlen, Walter* <i>ETH Zurich</i>	14:00-14:15	FrDT9.6	Investigating Autonomic Correlates of Continuous Pain in the Brainstem through High-Field FMRI Sclocco, Roberta* <i>Politecnico di Milano</i> ; Beissner, Florian <i>Hannover Medical School, Institute of Neuroradiology</i> ; Polimeni, Jonathan <i>Harvard Medical School</i> ; <i>Massachusetts General Hospital</i> ; Desbordes, Gaelle <i>Massachusetts General Hospital</i> ; Wald, Lawrence L. A. A. <i>Martinos Center for Biomedical Imaging, Dept. of Radiology</i> ; Cerutti, Sergio <i>Politecnico di Milano</i> ; Bianchi, Anna Maria <i>Politecnico di Milano</i> ; Barbieri, Riccardo <i>MGH-Harvard Medical School-MIT</i> ; Napadow, Vitaly <i>Massachusetts General Hospital</i>		
13:45-14:00	FrDT7.5	Instrumented Equipment and Mobile APPs for Objective Evaluation of Physical Therapy Postolache, Octavian* <i>Instituto de Telecomunicações</i>	FrDT8: 12:45-14:15 Amber 5 12.M3 Smart, Sustainable and Inclusive Health in a Smart City (Minisymposium) Chair: Nollo, Giandomenico <i>University of Trento</i>				
12:45-13:00	FrDT8.1	Engaging Community for Participatory Design Caon, Maurizio* <i>Univ. of Applied Sciences and Arts Western Switzerland</i>	FrDT10: 12:45-14:15 Amber 7 SS4 Neuronal Probes for Investigating Brain Circuits: Scopes and Challenges (Special Session) Chair: Mahmud, Mufti <i>University of Padova</i> Co-Chair: Vassanelli, Stefano <i>NeuroChip Lab, Univ. of Padova</i>				
13:00-13:15	FrDT8.2	Innovation Procurement and Service Design for Smart Healthy Cities Mion, Luca* <i>Trento RISE</i> ; Rizzi, Carlo <i>Trento TRISE</i> ; Conforti, Diego <i>Autonomous Province of Trento</i> ; Turra, Ettore <i>Azienda Provinciale per i Servizi Sanitari</i> ; Nollo, G. <i>Univ. of Trento</i>	12:45-13:00	FrDT10.1	Processing and Analysis of Multichannel Extracellular Neuronal Signals: State-of-the-Art and Challenges Mahmud, Mufti* <i>Univ. of Padova</i> ; Vassanelli, Stefano <i>NeuroChip Laboratory, Univ. of Padova</i>		
13:15-13:30	FrDT8.3	Social Network for Ageing People, Leveraging Collective Intelligence Di Furia, Lucia* <i>ARS Marche Region</i>	13:00-13:15	FrDT10.2	Challenges and Perspectives for Large-Scale Neuronal Recordings with CMOS Multielectrode Arrays Maccione, Alessandro <i>Istituto Italiano di Tecnologia</i> ; Angotzi, Gian Nicola <i>IIT, Genova</i> ; Nieuw, Thierry <i>Istituto Italiano Tecnologia</i> ; Di Marco, Stefano <i>Istituto Italiano di Tecnologia</i> ; Malerba, Mario <i>Fondazione Istituto Italiano di Tecnologia</i> ; Lonardoni, Davide <i>Istituto Italiano di Tecnologia</i> ; Zordan, Stefano <i>Univ. of Genoa</i> ; Amin, Hayder <i>Istituto Italiano di Tecnologia (IIT)</i> ; Berdondini, Luca* <i>Istituto Italiano di Tecnologia</i>		
13:30-13:45	FrDT8.4	Smart Ambient&Wearable Integrated Monitoring at Home for Elderly Andreoni, Giuseppe* <i>Politecnico di Milano</i>	13:15-13:30	FrDT10.3	Advanced Neuroelectronic Interfaces: 3D Neuronal Cultures and Organic Field Effect Transistors Spanu, Andrea <i>Univ. of Genoa, Italy</i> ; Tedesco, Mariateresa <i>Univ. of Genoa</i> ; Bonfiglio, Annalisa <i>Univ. of Cagliari</i> ; Martinoia, Sergio* <i>Univ. of Genoa</i>		
FrDT9: 12:45-14:15 Amber 6 6.M2 Latest Advances in Neuroimaging of the Central Autonomic Network: Combining Autonomic Dynamics and Brain Imaging Data (Minisymposium) Chair: Barbieri, Riccardo <i>MGH-Harvard Medical School-MIT</i>		12:45-13:00	FrDT9.1	13:30-13:45	FrDT10.4	Future Challenges and Perspectives of Implantable Neural Interfaces Vassanelli, Stefano* <i>NeuroChip Laboratory, Univ. of Padova</i>	
12:45-13:00	FrDT9.1	Causal Brain Correlates of Autonomic Nervous System Outflow Duggento, Andrea <i>Univ. of Rome "Tor Vergata"</i> ; Bianciardi, Marta <i>Dept. of Radiology, A.A. Martinos Center for Biomedical Ima</i> ; Wald, Lawrence L. A. A. <i>Martinos Center for Biomedical Imaging, Dept. of Radiology</i> ; Passamonti, Luca <i>Univ. of Cambridge</i> ; Guerrisi, Maria <i>Univ. of Rome "Tor Vergata"</i> ; Barbieri, Riccardo <i>MGH-Harvard Medical School-MIT</i> ; Toschi, Nicola* <i>Univ. of Rome "Tor Vergata", Faculty of Medicine</i>	13:00-13:15	FrDT9.2	13:45-14:00	FrDT10.5	Wide-Field Photostimulation in in Vitro Cortical Networks: Consequences for the Emerging Reverberating Responses Pulizzi, Rocco <i>Univ. of Antwerpen</i> ; Musumeci, Gabriele <i>Univ. of Antwerpen</i> ; Van Den Haute, Chris <i>KU Leuven</i> ; Veerle, Baekelandt <i>KU Leuven</i> ; Giugliano, Michele* <i>Univ. of Antwerpen</i>
13:00-13:15	FrDT9.2	Functional Connectivity of Brainstem Nuclei Beissner, Florian* <i>Hannover Medical School</i>	13:15-13:30	FrDT9.3	14:00-14:15	FrDT10.6	CMOS MEAs with High Spatiotemporal Resolution – A Topical Review Thewes, Roland* <i>TU Berlin</i>
13:15-13:30	FrDT9.3	Neuroimaging Nausea to Better Understand Central Autonomic Network Physiology – A Multi-Modal Approach Napadow, Vitaly* <i>Massachusetts General Hospital</i> ; Sclocco, Roberta <i>Politecnico di Milano</i> ; Kim, Jieun <i>MGH</i> ; Kuo, Braden <i>Massachusetts General Hospital, Harvard Medical School</i> ; Barbieri, Riccardo <i>MGH-Harvard Medical School-MIT</i>					

FrDT11: 12:45-14:15 SS5 Learning How to Learn (Special Session) Chair: Oakley, Barbara <i>Oakland University</i>	Amber 8	15:15-15:30 Mean Arterial Blood Pressure and Pulse Pressure Wave Measurement with Low Cost Technologies Sodini, Charles G.* <i>Massachusetts Institute of Tech.</i> ; Seo, Joohyun <i>Massachusetts Institute of Tech.</i> ; Pietrangelo, Sabino <i>Massachusetts Institute of Tech.</i> ; Heldt, Thomas <i>Massachusetts Institute of Tech.</i> ; Winokur, Eric S. <i>Massachusetts Institute of Tech.</i> ; He, David Da <i>Massachusetts Institute of Tech.</i> ; Lee, Hae-Seung <i>Massachusetts Institute of Tech.</i>	FrET1.4
12:45-13:00 Learning How to Learn Oakley, Barbara* <i>Oakland Univ.</i>	FrDT11.1		
FrDT14: 12:45-14:15 SS6 Creating an Ethical Mindset through Professional Development (Special Session) Chair: Cohen, Bernard Allan <i>Neurological Monitoring Assoc., LLC</i>	Suite 7	FrET2: 14:30-16:00 12.2 Technologies for Detecting, Managing and Preventing Falls I (Oral Session) Chair: Becker, Clemens <i>Robert Bosch Hospital, Stuttgart</i> Co-Chair: Chiari, Lorenzo <i>University of Bologna</i>	Brown 2
12:45-13:00 Creating an Ethical Mindset through Professional Development Cohen, Bernard Allan* <i>Neurological Monitoring Associates, LLC</i>	FrDT14.1		
FrDT16: 12:45-14:15 9.M2 Continuous-Flow Biochips: Technology, Testing and Design for Fault-Tolerance and Reliability (Minisymposium) Chair: Pop, Paul <i>Technical University of Denmark</i> Co-Chair: Grover, William <i>University of California, Riverside</i>	White 2	14:30-14:45 Automatic vs. Clinical Assessment of Fall Risk in Older Individuals: A Proof of Concept Rivolta, Massimo <i>Walter Univ. degli studi di Milano</i> ; Aktaruzzaman, Md <i>Univ. degli Studi di Milano</i> ; Rizzo, Giovanna <i>National Research Council (CNR)</i> ; Lafortuna, Claudio <i>Istituto di Bioimmagini e Fisiologia Molecolare (IBFM)</i> ; Ferrarin, Maurizio <i>Fondazione Don Carlo Gnocchi Onlus</i> ; Bovi, Gabriele <i>Fondazione Don Carlo Gnocchi Onlus</i> ; Bonardi, Daniela <i>Rita INRCA IRCCS Casatenovo</i> ; Sassi, Roberto* <i>Univ. degli Studi di Milano</i>	FrET2.1
12:45-13:00 Testing of Flow-Based Microfluidic Biochips Hu, Kai* <i>Duke Univ.</i> ; Chakrabarty, Krishnendu <i>Duke Univ.</i>	FrDT16.1		
13:00-13:15 Flow-Based Biochips: Design for Reliability and Cross-Contamination Avoidance Hu, Kai <i>Duke Univ.</i> ; Ho, Tsung-Yi* <i>National Chiao Tung Univ.</i> ; Chakrabarty, Krishnendu <i>Duke Univ.</i>	FrDT16.2	14:45-15:00 Gait Analysis and Estimation of Changes in Fall Risk Factors Similä, Heidi* <i>VTT Technical Research Centre of Finland Ltd</i> ; Immonen, Milla <i>Sinikka VTT Technical Research Centre of Finland</i> ; Merilähti, Juho <i>Markus VTT</i> ; Petäkoski-Hult, Tuula <i>VTT</i>	FrET2.2
13:15-13:30 Flow-Based Biochips: Fault-Tolerant Design and Error Recovery Pop, Paul* <i>Technical Univ. of Denmark</i>	FrDT16.3		
13:30-13:45 Design Automation for Flow-Based Microfluidic Biochips McDaniel, Jeffrey <i>Univ. of California, Riverside</i> ; Crites, Brian <i>Univ. of California, Riverside</i> ; Curtis, Christopher <i>Univ. of California, Riverside</i> ; Brisk, Philip* <i>Univ. of California, Riverside</i>	FrDT16.4	15:00-15:15 Context Focused Older Adult Mobility and Gait Assessment Taylor, Kenneth* <i>Univ. College Dublin</i> ; Reginatto, Brenda <i>Univ. College Dublin</i> ; Patterson, Matt <i>Univ. College Dublin</i> ; Power, Dermot <i>Mater Misericordiae Univ. Hospital</i> ; Komaba, Yusuke <i>Fujitsu Ireland Ltd.</i> ; Maeda, Kazuho <i>Fujitsu Laboratories Ltd.</i> ; Inomata, Akihiro <i>Fujitsu Japan</i> ; Caulfield, Brian <i>UCD</i>	FrET2.3
13:45-14:00 The Design and use of Microfluidic Chips: Past Successes and Future Challenges Bhakta, Heran <i>Univ. of California, Riverside</i> ; Wang, Junchao <i>Univ. of California, Riverside</i> ; Grover, William* <i>Univ. of California, Riverside</i>	FrDT16.5	15:15-15:30 Camera-Based Fall Detection using a Particle Filter Debard, Glen* <i>Thomas More Kempen</i> ; Baldewijns, Greet <i>KU Leuven campus Geel, AdvISE Technology Lab, Belgium</i> ; Goedemé, Toon <i>KU Leuven, Campus De Nayer, EAVISE Research Group</i> ; Tuytelaars, Tinne <i>ESAT-PSI, KU Leuven</i> ; Vanrumste, Bart <i>Katholieke Univ. Leuven</i>	FrET2.4
FrET1: 14:30-16:00 5.M3 Cuff-Less Blood Pressure Monitoring via Pulse Transit Time II Recent Advances on Systems (Minisymposium) Chair: Inan, Omer <i>Georgia Institute of Technology</i> Co-Chair: Mestha, Lalit, K. <i>Palo Alto Research Center - A Xerox Co.</i>	Brown 1	15:30-15:45 Can a Visual Biofeedback System based on Predictive Information Improve Postural Performance? D'Anna, Carmen* <i>Roma TRE Univ.- Engineering Dept.</i> ; Schmid, Maurizio <i>Roma Tre Univ.</i> ; Scorza, Andrea <i>Roma Tre Univ.</i> ; Goffredo, Michela <i>Engineering Dept. Univ. Roma TRE</i> ; Sciuto, Salvatore <i>Andrea Univ. of Rome "ROMA TRE"</i> ; Conforto, Silvia <i>Univ. Roma TRE</i>	FrET2.5
14:30-14:45 Wearable Device for Non-Invasive Beat-to-Beat Blood Pressure Monitoring using Pulse Transit Time Savio Paul, Nirmal <i>CSIR-CEERI</i> ; Shiv, Ganesh <i>CSIR-CEERI</i> ; Sheriff, Jaffer <i>CSIR-CEERI</i> ; Prakash, Suriya <i>CSIR-CEERI</i> ; Morey, Gautam <i>Sofomo Embedded Solutions Pvt. Ltd</i> ; Pesala, Bala* <i>CSIR-CEERI</i>	FrET1.1	15:45-16:00 Angular Sway Propagation in One Leg Stance and Quiet Stance with Inertial Measurement Units for Older Adults Kong, Weisheng* <i>Waseda Univ.</i> ; Sessa, Salvatore <i>Waseda Univ.</i> ; Zhang, Di <i>Waseda Univ.</i> ; Zecca, Massimiliano <i>Loughborough Univ.</i> ; Cosentino, Sarah <i>Waseda Univ.</i> ; Ishii, Hiroyuki <i>Waseda Univ.</i> ; Magistro, Daniele <i>Loughborough Univ.</i> ; Takeuchi, Hikaru <i>Tohoku Univ.</i> ; Kawashima, Ryuta <i>Tohoku Univ.</i> ; Takanishi, Atsuo <i>Waseda Univ.</i>	FrET2.6
14:45-15:00 Easy Extraction of Blood Pressure Variability from Body Video Images using Simulink Yoshizawa, Makoto* <i>Tohoku Univ.</i> ; Sugita, Norihiro <i>Tohoku Univ.</i> ; Abe, Makoto <i>Tohoku Univ.</i> ; Obara, Kazuma <i>Tohoku Univ.</i> ; Tanaka, Akira <i>Fukushima Univ.</i> ; Homma, Noriyasu <i>Tohoku Univ. Graduate School of Medicine</i> ; Yambe, Tomoyuki <i>Tohoku Univ</i>	FrET1.2		
15:00-15:15 A Calibration Free Method for Cuff Less Evaluation of Pulse Pressure Joseph, Jayaraj* <i>HTIC, Indian Institute of Technology Madras</i> ; PM, Nabeel <i>IITMADRAS</i> ; Sivaprakasam, Mohanasankar <i>Indian Institute of Technology Madras</i>	FrET1.3		

FrET3: 14:30-16:00 Brown 3
6.21 Neurological Disorders I (Oral Session)
Chair: Zouridakis, George *University of Houston*
Co-Chair: Tong, Shanbao *Shanghai Jiao Tong University*

14:30-14:45 FrET3.1
Low Frequency Overactivation in Dyslexia: Evidence from Resting State Magnetoencephalography
 Pagnotta, Mattia *Federico La Sapienza - Univ. of Rome*; Zouridakis, George* *Univ. of Houston*; Li, Lianyang *Univ. of Houston*; Lizarazu, Mikel *Basque Center on Cognition, Brain and Language*; Lallier, Marie *Basque Center on Cognition, Brain and Language*; Molinaro, Nicola *Basque Center on Cognition, Brain and Language*; Carreiras, Manuel *Basque Center on Cognition, Brain and Language*

14:45-15:00 FrET3.2
Brain Activation Profiles in mTBI: Evidence from Combined Resting-State EEG and MEG Activity
 Li, Lianyang *Univ. of Houston*; Pagnotta, Mattia *Federico La Sapienza - Univ. of Rome*; Arakaki, Xianghong *Huntington Medical Research Institutes*; Tran, Thao *Huntington Medical Research Institutes*; Strickland, David *Huntington Medical Research Institutes*; Harrington, Michael *Huntington Medical Research Institutes*; Zouridakis, George* *Univ. of Houston*

15:00-15:15 FrET3.3
Analysis of Upper Limb Movement in Multiple Sclerosis Subjects during Common Daily Actions
 Pellegrino, Laura* *Univ. of Genoa*; Stranieri, Giorgia *Univ. degli Studi di Genova - DIBRIS*; Tiragallo, Elena *Univ. degli Studi di Genova - DIBRIS*; Tacchino, Andrea *Italian MS Foundation*; Bricchetto, Giampaolo *Italian MS Foundation*; Coscia, Martina *TNE Lab Ecole Polytechnique Federale de Lausanne*; Casadio, Maura *Univ. of Genova*

15:15-15:30 FrET3.4
Real-Time Monitoring of Cerebral Blood Flow by Laser Speckle Contrast Imaging after Cardiac Arrest in Rat
 He, Junyun *Univ. of Maryland*; Lu, Hongyang *Shanghai Jiao Tong Univ.*; Deng, Ruoxian *Johns Hopkins Univ.*; Young, Leanne *Johns Hopkins Univ.*; Tong, Shanbao *Shanghai Jiao Tong Univ.*; Jia, Xiaofeng* *Univ. of Maryland School of Medicine, Johns Hopkins Univ.*

15:30-15:45 FrET3.5
Development of a Robotic Evaluation System for the Ability of Proprioceptive Sensation in Slow Hand Motion
 Tanaka, Yoshiyuki* *Nagasaki Univ.*; Mizoe, Genki *Nagasaki Univ.*; Kawaguchi, Tomohiro *Nagasaki Univ.*

15:45-16:00 FrET3.6
Brain-Computer Interfacing in Amyotrophic Lateral Sclerosis: Implications of a Resting-State EEG Analysis
 Jayaram, Vinay* *Max Planck Institute for Intelligent Systems, Tuebingen*; Grosse-Wentrup, Moritz *Max Planck Institute for Biological Cybernetics*; Hohmann, Matthias *Max Planck Institute for Intelligent Systems*; Fomina, Tatiana *Max Planck Institute for Intelligent Systems*; Schölkopf, Bernhard *MPI for Biological Cybernetics*; Schöls, Ludger *Hertie Institute for Clinical Brain Research*; Synofzik, Matthis *Hertie Institute for Clinical Brain Research*; Müller vom Hagen, Jennifer *Hertie Institute for Clinical Brain Research*; Widmann, Natalie *Max Planck Institute for Intelligent Systems, Tübingen*; Förster, Christian *Eberhard Karls Univ. Tübingen*

FrET4: 14:30-16:00 Amber 1
1.29 Tensor Methods for Biomedical Signal and Data Analysis (Invited Session)
Chair: Van Huffel, Sabine *Katholieke Universiteit Leuven*
Co-Chair: Zarzoso, Vicente *Univ. Nice Sophia Antipolis - CNRS*

14:30-14:45 FrET4.1
Multimodal Approach to Estimate the Ocular Movements during EEG Recordings: A Coupled Tensor Factorization Method
 Rivet, Bertrand* *Grenoble Univ.*; Duda, Marc *GIPSA-lab*; Guerin-Dugue, Anne *GIPSA-lab*; Jutten, Christian *Univ. of Grenoble*; Comon, Pierre *UNSA/CNRS*

14:45-15:00 FrET4.2
Atrial Signal Extraction in Atrial Fibrillation Electrocardiograms using a Tensor Decomposition Approach
 Ribeiro, Lucas* *Federal Univ. of Ceará*; Hidalgo-Muñoz, Antonio R. *Univ. of Nice Sophia Antipolis*; Zarzoso, Vicente *Univ. Nice Sophia Antipolis - CNRS*

15:00-15:15 FrET4.3
Tensor-Based Detection of T Wave Alternans using ECG
 Goovaerts, G.* *KU Leuven*; Vandenberk, B. *KU Leuven*; Willems, R. *KU Leuven*; Van Huffel, S. *Katholieke Univ. Leuven*

15:15-15:30 FrET4.4
Localization of Spatially Distributed Brain Sources after a Tensor-Based Preprocessing of Interictal Epileptic EEG Data
 Albera, Laurent* *Univ. de Rennes 1 and INSERM*; Becker, Hanna *Technicolor SA, Cesson-Sévigné, France*; Karfoul, Ahmad *Al-Baath Univ.*; Gribonval, Rémi *Inria, Centre Inria Rennes - Bretagne Atlantique, Rennes*; Kachenoura, Amar *Univ. de Rennes1 and INSERM*; Bensaïd, Siouar *LTSI, UMR Inserm*; Senhadji, Lotfi *Univ. de Rennes 1 and INSERM*; Hernández, Alfredo I *Univ. de Rennes 1 and INSERM*; Merlet, Isabelle *INSERM - Univ. de Rennes 1*

15:30-15:45 FrET4.5
Complex Tensor based Blind Source Separation of EEG for Tracking P300 Subcomponents
 Kouchaki, Samaneh* *Dept. of Computing, Univ. of Surrey*; Enshaeifar, Shirin *Dept. of Computing, Univ. of Surrey*; Cheong Took, Clive *Univ. of Surrey*; Sanei, Saeid *Univ. of Surrey*

15:45-16:00 FrET4.6
Tensor based Tumor Tissue Type Differentiation using Magnetic Resonance Spectroscopic Imaging
 Halandur Nagaraja, Bharath *KU Leuven*; Sima, Diana *Katholieke Univ. Leuven*; Sauwen, Nicolas *ESAT-STADIUS, KULeuven, Leuven*; Himmelreich, Uwe *KU LEUVEN*; De Lathauwer, Lieven *KU LEUVEN*; Van Huffel, Sabine* *Katholieke Univ. Leuven*

FrET5: 14:30-16:00 Amber 2
1.30 Pattern Recognition Methods and Data Mining for Biosignals (Oral Session)
Chair: Magenes, Giovanni *University of Pavia*
Co-Chair: Clifton, David *University of Oxford*

14:30-14:45 FrET5.1
Detection of G-Induced Loss of Consciousness (G-LOC) Prognosis through EMG Monitoring on Gastrocnemius Muscle in Flight
 Choi, Booyong *Air Force Academy*; Lee, Yongkyun *Air Force Academy*; Cho, Taehwan *Air Force Academy*; Koo, Hyojin *Air Force Academy*; Kim, Dongsoo* *Air Force Academy*

14:45-15:00 FrET5.2
On Sweat Analysis for Quantitative Estimation of Dehydration during Physical Exercise
 Ring, Matthias* *Digital Sports Group, Pattern Recognition Lab, Friedrich-Alexand; Lohmüller, Clemens Univ. Hospital Erlangen*; Manfred, Rauh *Dept. of Paediatrics, Friedrich-Alexander-Univ. Erlan*; Eskofier, Bjoern M *Friedrich-Alexander-Univ. Erlangen-Nürnberg*

15:00-15:15 FrET5.3
Efficient Estimation of Tissue Thicknesses using Sparse Approximation for Gaussian Processes
 Wissel, Tobias* *Univ. of Luebeck*; Stueber, Patrick *Univ. of Luebeck*; Wagner, Benjamin *Univ. of Luebeck*; Schweikard, Achim *Univ. of Luebeck, Germany*; Ernst, Floris *Univ. of Luebeck*

15:15-15:30 FrET5.4
Classification Strategies for a Single-Trial Binary Brain Computer Interface based on Remembering Unpleasant Odors
 Placidi, Giuseppe* *Univ. of L'Aquila - ITALY*; Petracca, Andrea *Univ. of L'Aquila*; Spezialetti, Matteo *Univ. of L'Aquila*; Iacoviello, Daniela *Sapienza Univ. of Rome*

15:30-15:45	FrET5.5	15:00-15:15	FrET7.3
Phenotypic Characterisation of Crohn's Disease Severity Clifton, David* <i>Univ. of Oxford</i> ; Niehaus, Katherine <i>Univ. of Oxford</i> ; Uhlig, Holm <i>Univ. of Oxford</i>		Breast Tumor Detection using UWB Circular-SAR Tomographic Microwave Imaging Oloumi, Daniel* <i>Univ. of Alberta</i> ; Boulanger, Pierre <i>Univ. of Alberta</i> ; Kordzadeh, Atefeh <i>Univ. of Alberta, bio-Medical Engineering and ECE departmen</i> ; Karumudi, Rambabu <i>Univ. of Alberta, ECE Dept.</i>	
15:45-16:00	FrET5.6	15:15-15:30	FrET7.4
Effective Compression and Reconstruction of Human Skin Hyperspectral Reflectance Databases Chen, Tenn Francis* <i>Univ. of Waterloo</i> ; Baranoski, Gladimir <i>Univ. of Waterloo</i>		High Resolution Depth-Resolved Imaging from Multi-Focal Images for Medical Ultrasound Diamantis, Konstantinos <i>Heriot-Watt Univ.</i> ; Dalgarno, Paul <i>Heriot-Watt Univ.</i> ; Greenaway, Alan <i>Heriot-Watt Univ.</i> ; Anderson, Tom <i>Univ. of Edinburgh</i> ; Jensen, Jorgen <i>Technical Univ. of Denmark</i> ; Sboros, Vassilis* <i>Heriot Watt Univ.</i>	
FrET6: 14:30-16:00	Amber 3	15:30-15:45	FrET7.5
2.22 Image Reconstruction (Oral Session) Co-Chair: Corsi, Cristiana <i>University of Bologna</i>		Biomagnetic Measurement System for Supine Subjects with Expanded Sensor Array and Real-Time Noise Reduction Adachi, Yoshiaki* <i>Kanazawa Institute of Technology</i> ; Kawabata, Shigenori <i>Tokyo Medical and Dental Univ.</i> ; Sasano, Tetsuo <i>Tokyo Medical and Dental Univ.</i> ; Haruta, Yasuhiro <i>Kanazawa Institute of Techonlogy</i> ; Oyama, Daisuke <i>Kanazawa Institute of Technology</i> ; Uehara, Gen <i>Kanazawa Institute of Technology</i> ; Sekihara, Kensuke <i>Tokyo Metropolitan Univ.</i>	
14:30-14:45	FrET6.1	15:45-16:00	FrET7.6
Frame-Based Compressive Sensing MR Image Reconstruction with Balanced Regularization Xie, Shoulie* <i>Institute for Infocomm Research</i> ; Guan, Cuntai <i>Institute for Infocomm Research</i> ; Huang, Weimin <i>Institute for Infocomm Research, Agency for Science Technology and</i> ; Lu, Zhongkang <i>Institute for Infocomm Research</i>		Toward Development of Mobile Application for Hand Arthritis Screening Akhbardeh, Farhad <i>Univ. of North Dakota</i> ; Vasefi, Fartash <i>Simon Fraser Univ.</i> ; Tavakolian, Kouhyar <i>Assistant Professor</i> ; David, Bradley <i>Univ. of North Dakota</i> ; Fazel-Rezai, Reza* <i>Univ. of North Dakota</i>	
14:45-15:00	FrET6.2	FrET8: 14:30-16:00	Amber 5
Analysis of the Electrical Patterns and Structural Remodeling in Atrial Fibrillation Valinoti, Maddalena* <i>Univ. of Bologna</i> ; Lozupone, Graziano <i>Vito School of Engineering and Architecture, Cesena campus</i> ; Sabbatani, Paolo <i>Cardiology-Cardiological Intensive Care Unit, Bufalini Hospital</i> ; Mantovan, Roberto <i>Cardiology-Cardiological Intensive Care Unit, Bufalini Hospital</i> ; Severi, Stefano <i>Univ. of Bologna</i> ; Corsi, Cristiana <i>Univ. of Bologna</i>		3.8 Label Free Live Cell Monitoring (Invited Session) Chair: Wiest, Joachim <i>cellasys GmbH</i> Co-Chair: Brischwein, Martin <i>Technische Universität München</i>	
15:00-15:15	FrET6.3	14:30-14:45	FrET8.1
Backprojection Regularization with Weighted Ramp Filter for Tomographic Reconstruction Wang, Zhenglin <i>The Univ. of South Australia</i> ; Lee, Ivan* <i>The Univ. of South Australia</i>		Impedance Analysis of Different Cell Monolayers Grown on Gold-Film Electrodes Wegener, J.* <i>Univ. Regensburg</i> ; Reiss, B. <i>Univ. Regensburg</i>	
15:15-15:30	FrET6.4	14:45-15:00	FrET8.2
Algorithm for Simulation of Craniotomies Assisted by Peripheral for 3D Virtual Navigation Duque, Sara Isabel* <i>Univ. Pontificia Bolivariana-Univ. of Antioquia</i> ; Ochoa, John Fredy <i>Univ. of Antioquia</i> ; Botero, Andres Felipe <i>Univ. of Antioquia</i> ; Ramirez, Mateo <i>Univ. of Antioquia</i>		Sensor-Based Microphysiometry Brischwein, Martin* <i>Technische Univ. München</i>	
15:30-15:45	FrET6.5	15:00-15:15	FrET8.3
A Partial Reconstruction Scheme for Continuous Wave Diffuse Optical Tomography with Reflection Geometry Patra, Rusha* <i>Indian Institute of Tech. Kharagpur</i> ; Dutta, P.K. <i>School of Medical Science and Tech., IIT Kharagpur, India</i>		In-Vivo Cell and Tissue Monitoring with Active Implants Clauss, Johannes F.* <i>Technische Univ. München</i> ; Wirths, Walter <i>Technische Univ. München</i> ; Roos, Michael Markus <i>Technische Univ. München</i> ; Wöhrle, Budi <i>Technische Univ. München</i> ; Brischwein, Martin <i>Technische Univ. München</i> ; Wolf, Bernhard <i>Technische Univ. München</i>	
15:45-16:00	FrET6.6	15:15-15:30	FrET8.4
Dual-Dictionary Learning based MR Image Reconstruction with Self-Adaptive Dictionaries Li, Jiansen <i>Shanghai Jiao Tong Univ.</i> ; Song, Ying <i>Sichuan Univ., Chengdu, China.</i> ; Zhao, Jun* <i>Shanghai Jiao Tong Univ.</i>		Online, Label-Free Monitoring of Organ-on-a-Chip Models: The Case for Microphysiometry Alexander, Frank <i>cellasys</i> ; Wiest, Joachim* <i>cellasys</i>	
FrET7: 14:30-16:00	Amber 4	15:30-15:45	FrET8.5
2.23 Emerging Imaging Method (Oral Session)		Dynamic Monitoring of Cellular Metabolic Activity in Combination with Live Cell Imaging Pfister, Cornelia* <i>HP Medizintechnik GmbH</i> ; Wolf, Peter <i>HP Medizintechnik GmbH</i>	
14:30-14:45	FrET7.1	15:45-16:00	FrET8.6
Multiple-Instance Learning for Breast Cancer Detection in Mammograms Sanchez de la Rosa, Ruben <i>Institute Mines-Telecom/Telecom Bretagne</i> ; Lamard, Mathieu <i>Univ. de Bretagne Occidentale</i> ; Cazuguel, Guy <i>Institute Mines-Telecom/Telecom Bretagne</i> ; Coatrieux, Gouenou <i>Institute Telecom - Telecom Bretagne - Inserm</i> ; Cozic, Michel <i>MEDECOM</i> ; Quellec, Gwenole* <i>Inserm</i>		Application of Algae-Biosensor for Environmental Monitoring Umar, Lazuardi* <i>Univ. of Riau</i> ; Alexander, Frank <i>cellasys GmbH</i> ; Wiest, Joachim <i>cellasys GmbH</i>	
14:45-15:00	FrET7.2		
Examining the Feasibility of a Microsoft Kinect™ based Game Intervention for Individuals with Anterior Cruciate Ligament Injury Risk Huo, Zhiyu* <i>Univ. of Missouri Columbic</i> ; Griffin, Joesph Gregory <i>Univ. of Missouri</i> ; Babiuch, Ryan <i>Univ. of Missouri</i> ; Gray, Aaron <i>Univ. of Missouri - Columbia</i> ; Willis, Bradley <i>Missouri Orthopaedic Institute</i> ; Skubic, Marjorie <i>Univ. of Missouri</i> ; Sun, Shining <i>Univ. of Missouri</i>			

FrET9: 14:30-16:00 Amber 6
3.9 Advanced Bioelectronic Interfaces (Invited Session)
Chair: Gosselin, Benoit *Laval University*
Co-Chair: Mohseni, Pedram *Case Western Reserve University*

14:30-14:45 FrET9.1
Impulse Radio Ultra Wideband Wireless Transmission of Dopamine Concentration Levels Recorded by Fast-Scan Cyclic Voltammetry
 Ebrazeh, Ali *Case Western Reserve Univ.*; Bozorgzadeh, Bardia *Case Western Reserve Univ.*; Mohseni, Pedram* *Case Western Reserve Univ.*

14:45-15:00 FrET9.2
Dual-Path NMR Receiver using Double Transceiver Microcoils
 Pourmodheji, Hossein *York Univ.*; Ghafar-Zadeh, Ebrahim* *York Univ.*; Magierowski, Sebastian *York Univ.*

15:00-15:15 FrET9.3
An Ultra Low Power Feature Extraction and Classification System for Wearable Seizure Detection
 Page, Adam *Univ. of Maryland Baltimore County*; Pramod, Siddharth *Univ. of Maryland Baltimore County*; Oates, Tim *Univ. of Maryland Baltimore County*; Mohsenin, Tinoosh* *Univ. of Maryland Baltimore County*

15:15-15:30 FrET9.4
Ultra Low-Power Transceiver with Novel FSK Modulation Technique and Efficient FSK-to-ASK Demodulation
 Zgaren, Mohamed* *Polytech. Montreal*; Moradi, Arash *Polytech. Montreal*; Sawan, Mohamad *Polytech. Montreal*

15:30-15:45 FrET9.5
Integrated Electronic System for Implantable Sensory NFC Tag
 Zaher, Ali* *Oslo Univ.*; Særsten, Joar *Oslo Univ.*; Nguyen, Thanh Trung *Oslo Univ.*; Häfliger, Philipp *Univ. of Oslo*

15:45-16:00 FrET9.6
Multichannel Spike Detector with an Adaptive Threshold based on a Sigma-Delta Control Loop
 Gagnon-Turcotte, Gabriel *Univ. Laval*; Dufresne Camaro, Charles-Olivier *Univ. Laval*; Gosselin, Benoit* *Laval Univ.*

FrET10: 14:30-16:00 Amber 7
6.22 Neural Interfaces I (Oral Session)

14:30-14:45 FrET10.1
Microfabricated Multi-Electrode Device for Detecting Oligodendrocyte-Regulated Changes in Axonal Conduction Velocity
 Sakai, Koji* *Univ. of Tokyo*; Shimba, Kenta *Univ. of Tokyo*; Kotani, Kiyoshi *Univ. of Tokyo*; Jimbo, Yasuhiko *Univ. of Tokyo*

14:45-15:00 FrET10.2
Comparison of Foam-Based and Spring-Loaded Dry EEG Electrodes with Wet Electrodes in Resting and Moving Conditions
 Yeung, Arnold* *Univ. of British Columbia*; Garudadri, Harinath *Univ. of California, San Diego*; Van Toen, Carolyn *MEA Forensic Engineers & Scientists*; Mercier, Patrick P. *Univ. of California, San Diego*; Balkan, Ozgur *Univ. of California San Diego*; Makeig, Scott *Univ. of California San Diego*; Virji-Babul, Naznin *Univ. of British Columbia*

15:00-15:15 FrET10.3
A New Generation of Double-Sided Intramuscular Electrodes for Multi-Channel Recording and Stimulation
 Poppendieck, Wigand* *Fraunhofer Institute für Biomedizinische Technik*; Muceli, Silvia *Univ. Medical Center Göttingen*; Dideriksen, Jakob *Univ. Medical Center Goettingen*; Rocon, Eduardo *CSIC*; Pons, Jose Luis *Cajal Institute, Spanish Research Council*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medic*; Hoffmann, Klaus-Peter *Fraunhofer Institut*

15:15-15:30 FrET10.4
Design of a Flexible Parylene-Based Multi-Electrode Array for Multi-Region Recording from the Rat Hippocampus
 Xu, Huijing* *Univ. of Southern California*; Hsiao, Min-Chi *Univ. of Southern California*; Meng, Ellis *Univ. of Southern California*; Berger, Theodore *Univ. of Southern California*; Song, Dong *Univ. of Southern California*

15:30-15:45 FrET10.5
Fused Silica Microlenses for Hermetic Packages as Part of Implantable Optrodes
 Rudmann, Linda* *Univ. of Freiburg*; Huber, Sebastian Dominik *Dept. of Microsystems Engineering - IMTEK, Univ. of Fr*; Ordonez, Juan Sebastian *Univ. of Freiburg*; Stieglitz, Thomas *Univ. of Freiburg*

15:45-16:00 FrET10.6
Topographical Strategies to Control Neural Outgrowth
 Morana Roccasalvo, Iolanda *The BioRobotics Institute, Scuola Superiore Sant'Anna, Pisa*; Sergi, Pier Nicola *Scuola Superiore Sant'Anna*; Tonazzini, Ilaria *NEST Istituto Nanoscienze CNR, Pisa*; Cecchini, Marco *NEST, Istituto Nanoscienze-CNR*; Micera, Silvestro* *Scuola Superiore Sant'Anna*

FrET11: 14:30-16:00 Amber 8
6.23 Biomimetic and Biofeedback Approaches for Myoelectric Control (Invited Session)
Chair: Nazarpour, Kianoush *Newcastle University*

14:30-14:45 FrET11.1
Considerations for Learning to use an Upper Limb Prosthesis
 Bongers, Raoul M* *Univ. of Groningen*; Bouwsema, Hanneke *Centre of Expertise in Rehabilitation and Audiology, Adelante Re*; Romkema, Sietske *Univ. of Groningen, Univ. Medical Center Groningen, Gr*; Dijk, Van, Ludger *Univ. of Groningen, Univ. Medical Center Groningen, Gr*; Sluis, Van der, Corry *Univ. of Groningen, Univ. Medical Center Groningen, Gr*

14:45-15:00 FrET11.2
The Ninapro Database: A Resource for Semp Naturally Controlled Robotic Hand Prosthetics
 Atzori, Manfredo* *Univ. of Applied Sciences Western Switzerland (HES-SO Valai*; Müller, Henning *Univ. of Applied Sciences Western Switzerland (HES-SO)*

15:00-15:15 FrET11.3
Towards Low-Dimensional Proportional Myoelectric Control
 Krasoulis, Agamemnon* *The Univ. of Edinburgh*; Nazarpour, Kianoush *Newcastle Univ.*; Vijayakumar, Sethu *The Univ. of Edinburgh*

15:15-15:30 FrET11.4
Myoelectric Control with Abstract Patterns
 Nazarpour, Kianoush* *Newcastle Univ.*

15:30-15:45 FrET11.5
A Multi-Channel Biomimetic Neuroprosthesis to Support Treadmill Gait Training in Stroke Patients
 Chia Bejarano, Noelia *Politecnico di Milano*; Ambrosini, Emilia *Politecnico di Milano*; Baccinelli, Walter *Politecnico di Milano*; Nardone, Antonio *Scientific Institute of Veruno, Fondazione Salvatore Maugeri.*; Monticone, Marco *Fondazione Salvatore Maugeri*; Ferrigno, Giancarlo *Politecnico di Milano*; Pedrocchi, Alessandra *Politecnico di Milano*; Ferrante, Simona* *Politecnico di Milano*

15:45-16:00 FrET11.6
EMG Biofeedback for Improved Accuracy and Precision of Routine Grasping using Myoelectric Prostheses
 Dosen, Strahinja* *Univ. Medical Center, UMG, Goettingen*; Markovic, Marko *Otto Bock HealthCare GmbH, Duderstadt*; Schweisfurth, Meike Annika *Dept. of Neurorehabilitation Engineering, Univ. Medici*; Hartmann, Cornelia *Univ. Medical Center Göttingen*; De Nunzio, Alessandro *Marco Otto Bock HealthCare GmbH*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medic*

FrET12: 14:30-16:00	Suite 5	15:15-15:30	FrET15.4
3.10 Signal Treatment and Feature Extraction from Ballistocardiogram and Seismocardiogram (Invited Session) Chair: Di Rienzo, Marco <i>Fondazione Don Carlo Gnocchi</i> Co-Chair: Inan, Omer <i>Georgia Institute of Technology</i>		Wrong Detection of Ventricular Fibrillation in an Implantable Cardioverter Defibrillator Caused by the Movement Near the MRI Scanner Bore Mattei, Eugenio <i>Italian Natl. Inst. of Health</i> ; Censi, Federica <i>Italian Natl. Inst. of Health</i> ; Triventi, Michele <i>Italian Natl. Inst. of Health</i> ; Mancini, Matteo* <i>Univ. degli Studi di Roma Tre</i> ; Napolitano, Antonio <i>Bambino Gesù Children's Hospital, IRCCS, Rome, Italy.</i> ; Genovese, Elisabetta <i>Bambino Gesù Children's Hospital, IRCCS.</i> ; Cannatà, Vittorio <i>Clinical-Technological Innovations Research Unit, Bambino Gesù C</i> ; Falsaperla, Rosaria <i>Italian Natl. Workers Compensation Authority (INAIL)</i> ; Calcagnini, Giovanni <i>Italian Natl. Inst. of Health</i>	
14:30-14:45	FrET12.1	15:30-15:45	FrET15.5
Moving Toward Automatic and Standalone Segmentation of Seismocardiogram Signal Khosrow-khavar, Farzad <i>Simon Fraser Univ.</i> ; Tavakolian, Kouhyar* <i>Assistant Professor, Menon, Carlo Simon Fraser Univ.</i>		Motion Compensation in a Tomographic Ultrasound Imaging System: Toward Volumetric Scans of a Limb for Prosthetic Socket Design Ranger, Bryan* <i>Massachusetts Institute of Technology</i> ; Feigin, Micha <i>Massachusetts Institute of Technology</i> ; Pestrov, Nikita <i>Skolkovo Institute of Technology</i> ; Zhang, Xiang <i>Massachusetts Institute of Technology</i> ; Lempitsky, Victor <i>Skolkovo Institute of Science and Technology</i> ; Herr, Hugh <i>MIT</i> ; Anthony, Brian W. <i>Massachusetts Institute of Technology</i>	
14:45-15:00	FrET12.2	15:45-16:00	FrET15.6
Ballistocardiogram of Baby during Sleep Lee, Won Kyu <i>Seoul Natl. Univ.</i> ; Yoon, Heenam <i>Seoul Natl. Univ.</i> ; Jung, Dawoon <i>Seoul Natl. Univ.</i> ; Hwang, Suhwan <i>Seoul Natl. Univ.</i> ; Park, Kwang S.* <i>Seoul Natl. Univ.</i>		Transthoracic Ventricular Fibrillation Charge Thresholds Panescu, Dorin* <i>Advanced Cardiac Therapeutics</i> ; Kroll, Mark <i>Univ. of Minnesota</i> ; Andrews, Chris <i>Univ. of Queensland</i> ; Pratt, Hugh <i>CPLSO</i>	
15:00-15:15	FrET12.3	FrET16: 14:30-16:00	White 2
MRI-Based Aortic Blood Flow Model in 3D Ballistocardiography Lejeune, Laurent* <i>Univ. Libre de Bruxelles</i> ; Prisk, Gordon <i>Univ. of California, San Diego</i> ; Nonclercq, Antoine <i>Univ. Libre de Bruxelles</i> ; Migeotte, Pierre-François <i>Univ. libre de Bruxelles - Hôpital Erasme</i>		4.8 Medical Decision Making (Invited Session) Chair: Seker, Huseyin <i>The University of Northumbria at Newcastle</i> Co-Chair: Sugimoto, Masahiro <i>Keio University</i>	
15:15-15:30	FrET12.4	14:30-14:45	FrET16.1
Robust Heartbeat Detection from In-Home Ballistocardiogram Signals of Older Adults using a Bed Sensor Lydon, Katy <i>Rock Bridge Senior High School</i> ; Su, Bo-Yu <i>Univ. of Missouri-Columbia</i> ; Rosales, Licet <i>Univ. of Missouri</i> ; Enayati, Moein <i>Univ. of Missouri</i> ; Ho, K.C. <i>Univ. of Missouri</i> ; Rantz, Marilyn <i>Univ. of Missouri</i> ; Skubic, Marjorie* <i>Univ. of Missouri</i>		Pigment Network-Based Skin Cancer Detection Alfed, Naser* <i>Univ. of Northumbria at Newcastle</i> ; Khelifi, Fouad <i>Northumbria Univ.</i> ; Bouridane, Ahmed <i>Northumbria Univ. Univ. Belfast</i> ; Seker, Huseyin <i>The Univ. of Northumbria at Newcastle</i>	
15:30-15:45	FrET12.5	14:45-15:00	FrET16.2
BioPhone: Physiology Monitoring from Peripheral Smartphone Motions Hernandez, Javier* <i>Massachusetts Institute of Tech.</i> ; McDuff, Daniel Jonathan <i>Massachusetts Institute of Tech.</i> ; Picard, Rosalind <i>Massachusetts Institute of Tech.</i>		Texture Analysis for Colorectal Tumour Biopsies using Multispectral Imagery Peyret, Rémy <i>Northumbria Univ.</i> ; Bouridane, Ahmed* <i>Northumbria Univ. Univ. Belfast</i> ; Al-maadeed, Somaya <i>Qatar Univ.</i> ; Kunhoth, Suchithra <i>Qatar Univ.</i> ; Khelifi, Fouad <i>Northumbria Univ.</i>	
15:45-16:00	FrET12.6	15:00-15:15	FrET16.3
Use of Seismocardiogram for the Beat-to-Beat Assessment of the Pulse Transit Time: A Pilot Study Di Rienzo, Marco* <i>Fondazione Don Carlo Gnocchi</i> ; Vaini, Emanuele <i>Polo Tecnologico, Fondazione Don Carlo Gnocchi</i> ; Lombardi, Prospero <i>Fondazione Don Carlo Gnocchi ONLUS</i>		Ensemble Learning Approaches to Predicting Complications of Blood Transfusion Murphree, Dennis* <i>Mayo Clinic</i> ; Ngufor, Che <i>Mayo Clinic</i> ; Upadhyaya, Sudhindra <i>Mayo Clinic</i> ; Madde, Nageswar <i>Mayo Clinic</i> ; Clifford, Leanne <i>Mayo Clinic</i> ; Kor, Daryl <i>Mayo Clinic</i> ; Pathak, Jyotishman <i>Mayo Clinic</i>	
FrET15: 14:30-16:00	White 1	15:15-15:30	FrET16.4
9.9 Stimulation and Implantable Technologies (Oral Session) Co-Chair: Panescu, Dorin <i>Advanced Cardiac Therapeutics</i>		Robust Automatic Breast Cancer Staging using a Combination of Functional Genomics and Image-Omics Su, Hai <i>Univ. of Florida</i> ; Shen, Yong <i>Univ. of Florida, Genetics Institute</i> ; Xing, Fuyong <i>Univ. of Florida</i> ; Hirshfield, Kim M. <i>Robert Wood Johnson Medical School, Dept. of Medicine-Medical On</i> ; Yang, Lin <i>Univ. of Florida</i> ; Qi, Xin <i>Rutgers Univ.</i> ; Foran, David J.* <i>Rutgers Cancer Institute of New Jersey</i>	
14:30-14:45	FrET15.1	15:30-15:45	FrET16.5
Hardware-In-The-Loop Simulation and Energy Optimization of Cardiac Pacemakers Barker, Chris <i>Univ. of Southampton</i> ; Kwiatkowska, Marta <i>Univ. of Oxford</i> ; Mereacre, Alexandru <i>Univ. of Oxford</i> ; Paoletti, Nicola* <i>Univ. of Oxford</i> ; Patane', Andrea <i>Univ. of Catania</i>		Improving Medical Diagnosis Reliability using Boosted C5.0 Decision Tree Empowered by Particle Swarm Optimization Pashaei, Elnaz <i>Yildiz Technical Univ.</i> ; Ozen, Mustafa <i>Biruni Univ.</i> ; Aydin, Nizamettin* <i>Yildiz Technical Univ.</i>	
14:45-15:00	FrET15.2	15:45-16:00	FrET16.6
Vestibular Implants: Hope for Improving the Quality of Life of Patients with Bilateral Vestibular Loss Guinand, Nils* <i>Univ. Hospitals of Geneva</i> ; van de Berg, Raymond <i>Maastricht Univ. Medical Centre</i> ; Ranieri, Maurizio <i>Univ. Hospitals of Geneva</i> ; Cavuscens, Samuel <i>Univ. Hospitals of Geneva</i> ; DiGiovanna, Jack <i>École Polytechnique Fédérale de Lausanne (EPFL)</i> ; Nguyen, Thuy Anh Khoa <i>EPF Lausanne</i> ; Micera, Silvestro <i>Scuola Superiore Sant'Anna</i> ; Stokroos, Robert <i>Maastricht Univ. Medical Centre</i> ; Kingma, Herman <i>Univ. Hospital Maastricht</i> ; Guyot, Jean-Philippe <i>ENT Dept., Geneva Univ. Hospital</i> ; Pérez-Fornos, Angelica <i>Cochlear Implant Center for French Speaking Switzerland, Service</i>		Towards a Predictive Model for Guillain-Barre Syndrome Hernandez-Torruco, Jose <i>Univ. Juárez Autónoma de Tabasco</i> ; Canul-Reich, Juana* <i>Univ. Juárez Autónoma de Tabasco</i> ; Frausto-Solis, Juan <i>Instituto Tecnológico de Ciudad Madero</i> ; Mendez-Castillo, Juan Jose <i>Hospital General de Especialidades Dr. Javier Buenfil Osorio</i>	
15:00-15:15	FrET15.3		
Intersubject Assessment of Implantable Antenna Performance for Intracranial Pressure Monitoring Psathas, Konstantinos* <i>National Technical Univ. of Athens</i> ; Karathanasis, Konstantinos <i>National Technical Univ. of Athens</i> ; Nikita, Konstantina <i>National Technical Univ. of Athens</i>			

FrET17: 14:30-16:00 Space 1
1.31 Biomedical Signal Classification: III: EEG Signal Analysis
(Oral Session)
Chair: Babiloni, Fabio *University of Rome*
Co-Chair: Nguyen, Hung T. *University of Technology, Sydney*

14:30-14:45 FrET17.1
Low-Complexity EEG-Based Eye Movement Classification using Extended Moving Difference Filter and Pulse Width Demodulation
Hsieh, Chi-Hsuan* *National Tsing-Hua Univ.*;
Huang, Yuan-Hao *National Tsing Hua Univ.*

14:45-15:00 FrET17.2
Reliability Over Time of EEG-Based Mental Workload Evaluation during Air Traffic Management (ATM) Tasks
Arico, Pietro* *Fondazione Santa Lucia*; Borghini, Gianluca *Univ. of Rome Sapienza*; Di Flumeri, Gianluca *Univ. of Rome Sapienza*; Colosimo, Alfredo *Univ. of Rome "Sapienza"*; Graziani, Ilenia *Dept. di Fisiologia e Farmacologia, BrainSigns*; Imbert, Jean-Paul *enac*; Granger, Geraud *enac*; Benhacene, Railane *enac*; Terenzi, Michela *deep blue*; Pozzi, Simone *deep blue*; Babiloni, Fabio *Univ. of Rome*

15:00-15:15 FrET17.3
Single Trial EEG Classification Applied to a Face Recognition Experiment using Different Feature Extraction Methods
Li, Yudu *Tsinghua Univ.*; Ma, Sen *Tsinghua Univ.*; Hu, Zhongze *Tsinghua Univ.*; Chen, Jiansheng* *Tsinghua Univ.*; Su, Guangda *Tsinghua Univ.*; Dou, Weibei *Tsinghua Univ.*

15:15-15:30 FrET17.4
Investigation of Window Size in Classification of EEG-Emotion Signal with Wavelet Entropy and Support Vector Machine
Candra, Henry* *Univ. of Tech. Sydney*; Yuwono, Mitchell *Univ. of Tech. Sydney*; Chai, Rifai *Univ. of Tech., Sydney*; Handojoseno, Aluysius Maria Ardi *Univ. of Tech., Sydney*; Elamvazuthi, Iraivan *Univ. Teknologi Petronas, Dept. of Electrical and Electroni*; Nguyen, Hung T. *Univ. of Tech., Sydney*; Su, Steven Weidong *Univ. of Tech., Sydney*

15:30-15:45 FrET17.5
A Comparison of ERP Spatial Filtering Methods for Optimal Mental Workload Estimation
Roy, Raphaëlle N. *CEA-LETI*; Bonnet, Stéphane *CEA Léti MINATEC*; Charbonnier, Sylvie *Gipsa-Lab*; Jallon, Pierre* *CEA Grenoble*; Campagne, Aurélie *Laboratoire de Psychologie et Neurocognition, Grenoble*

15:45-16:00 FrET17.6
Clustering Analysis to Identify Distinct Spectral Components of Encephalogram Burst Suppression in Critically Ill Patients
Zhou, David Wei *Massachusetts General Hospital*; Westover, Brandon *Massachusetts General Hospital*; McClain, Lauren M. *Massachusetts General Hospital*; Nagaraj, Sunil Belur *Massachusetts General Hospital*; Bajwa, Ednan K. *Massachusetts General Hospital*; Quraishi, Sadeq A. *Massachusetts General Hospital*; Akeju, Oluwaseun *Massachusetts General Hospital*; Cobb, J. Perren *Massachusetts General Hospital*; Purdon, Patrick L* *Massachusetts General Hospital*

FrET18: 14:30-16:00 Space 2
1.32 Biomedical Signal Classification IV: Myoelectric Signal Analysis (Oral Session)
Co-Chair: Al-Jumaily, Adel *University of Technology Sydney*

14:30-14:45 FrET18.1
Enhanced Robustness of Myoelectric Pattern Recognition to Across-Day Variation through Invariant Feature Extraction
Liu, Jianwei *Shanghai Jiao Tong Univ.*; Zhang, Dingguo *Shanghai Jiao Tong Univ.*; Sheng, Xinjun* *Shanghai Jiao Tong Univ.*; Zhu, Xiangyang *Shanghai Jiao Tong Univ.*

14:45-15:00 FrET18.2
A Robust Myoelectric Pattern Recognition using Online Sequential Extreme Learning Machine for Finger Movement Classification
Anam, Khairul *Univ. of Technology Sydney*; Al-Jumaily, Adel* *Univ. of Technology Sydney*

15:00-15:15 FrET18.3
Residuals of Autoregressive Model Providing Additional Information for Feature Extraction of Pattern Recognition-Based Myoelectric Control
Pan, Lizhi* *Shanghai Jiao Tong Univ.*; Zhang, Dingguo *Shanghai Jiao Tong Univ.*; Sheng, Xinjun *Shanghai Jiao Tong Univ.*; Zhu, Xiangyang *Shanghai Jiao Tong Univ.*

15:15-15:30 FrET18.4
Unsupervised Learning Technique for Surface Electromyogram Denoising from Power Line Interference and Baseline Wander
Niegowski, Maciej* *Public Univ. of Navarra*; Zivanovic, Miroslav *Univ. Publica de Navarra*; Gómez, Marisol *Univ. Publica de Navarra*; Lecumberri, Pablo *Univ. Publica de Navarra*

15:30-15:45 FrET18.5
A Comparison of Classification based Confidence Metrics for use in the Design of Myoelectric Control Systems
Scheme, Erik *Univ. of New Brunswick*; Englehart, Kevin* *Univ. of New Brunswick*

15:45-16:00 FrET18.6
Individual Finger Classification from Surface EMG: Influence of Electrode Set
Celadon, N.* *Fondazione Istituto Italiano di Tecnologia*; Dosen, S. *Univ. Medical Center, UMG, Goettingen*; Paleari, M. *Fondazione Istituto Italiano di Tecnologia*; Farina, D. *Bernstein Center for Computational Neuroscience, Univ. Medic*; Ariano, P. *Fondazione Istituto Italiano di Tecnologia*

FrET19: 14:30-16:00 Space 3
2.24 Cardiac Imaging and Image Analysis (Oral Session)
Co-Chair: Redmond, Stephen James *Univ. of New South Wales*

14:30-14:45 FrET19.1
Automated Cardiac Time Interval Measurement for Modified Myocardial Performance Index Calculation of Right Ventricle
Wang, Jingjing* *Univ. of New South Wales*; Henry, Amanda *Univ. of New South Wales*; Welsh, Alec *Univ. of New South Wales*; Redmond, Stephen James *Univ. of New South Wales*

14:45-15:00 FrET19.2
Classification of LV Wall Motion in Cardiac MRI using Kernel Dictionary Learning with a Parametric Approach
Mantilla, Juan* *Univ. de Rennes 1*; Paredes, José-Luis, Paredesj *Univ. de los Andes (ULA), Mérida Venezuela*; Bellanger, Jean-Jacques *LTSI-INSERM*; Donal, Erwan *INSERM LTSI*; Leclercq, Christophe *CHU Rennes, INSERM, LTSI, Univ. of Rennes 1*; Medina, Rubén *Univ. de Los Andes*; Garreau, Mireille *INSERM, Univ. de Rennes 1*

15:00-15:15 FrET19.3
A Technique for Visualising Three-Dimensional Left Atrial Cardiac Activation Data in Two Dimensions with Minimal Distance Distortion
Roney, Caroline *Imperial College London*; Tzortzis, Konstantinos N *Imperial College London*; Cantwell, Chris *Imperial College London*; Qureshi, Norman *Imperial College London*; Ali, Rheeda* *Imperial College London*; Lim, Phang Boon *Imperial College London*; Siggers, Jennifer *Imperial College London*; Ng, Fu Siong *Imperial College London*; Peters, Nicholas *Imperial College London*

15:15-15:30 FrET19.4
Quantification of Velocity Reduction After Flow Diverter Placement in Intracranial Aneurysm: An Ex Vivo Study with 3D Printed Replicas
Anderson, Jeff* *Houston Methodist Research Institute*; Klucznik, Richard *The Methodist Hospital*; Diaz, Orlando *The Methodist Hospital*; Zhang, Jonathon *The Methodist Hospital*; Britz, Gavin *Houston Methodist Research Institute*; Grossman, Robert *The Methodist Hospital*; Karmonik, Christof *The Methodist Hospital Neurological Inst*

15:30-15:45 FrET19.5
Segmentation of the Left Ventricle in Cardiac MRI using a Probabilistic Data Association Active Shape Model
Santiago, Carlos* *IST-ID*; Nascimento, Jacinto *Instituto Superior Técnico*; Marques, Jorge *Instituto Superior Técnico*

15:45-16:00	FrET19.6	14:45-15:00	FrET21.2
Automated Quantification of Epicardial Adipose Tissue in Cardiac Magnetic Resonance Imaging Cristobal-Huerta, Alexandra* <i>Univ. Rey Juan Carlos</i> ; Torrado-Carvajal, Angel <i>Univ. Rey Juan Carlos</i> ; Malpica, Norberto <i>Univ. Rey Juan Carlos</i> ; Luaces, Maria <i>Fuenlabrada Univ. Hospital</i> ; Hernandez-Tamames, Juan Antonio <i>Univ. Rey Juan Carlos</i>		A Compound Ampoule for Large-Volume Controllable Jet Injection Ruddy, Bryan* <i>Univ. of Auckland</i> ; Mckeage, James William <i>Auckland Bioengineering Institute</i> ; Williams, Rhys Matthew <i>Univ. of Auckland</i> ; Nielsen, Poul <i>The Univ. of Auckland</i> ; Taberner, Andrew <i>The Univ. of Auckland</i>	
FrET20: 14:30-16:00	Space 4	15:00-15:15	FrET21.3
10.8 Mobile Health (Oral Session)		Adaptive Controller for a Needle Free Jet-Injector System Modak, Ashin* <i>Massachusetts Institute of Technology</i> ; Hogan, N. Catherine <i>Massachusetts Institute of Technology</i> ; Hunter, Ian <i>Massachusetts Institute of Technology</i>	
14:30-14:45	FrET20.1	15:15-15:30	FrET21.4
Towards a Workflow Driven Design for mHealth Devices within Temporary Eye Clinics in Low-Income Settings Bolster, Nigel Magnus* <i>Univ. of Strathclyde</i> ; Bastawrous, Andrew <i>London School of Hygiene and Tropical Medicine</i> ; Giardini, Mario Ettore <i>Univ. of Strathclyde</i>		The Effect of Jet Shape on Jet Injection Park, Geehoon* <i>Massachusetts Institute of Technology</i> ; Modak, Ashin <i>Massachusetts Institute of Technology</i> ; Hogan, N. Catherine <i>Massachusetts Institute of Technology</i> ; Hunter, Ian <i>Massachusetts Institute of Technology</i>	
14:45-15:00	FrET20.2	15:30-15:45	FrET21.5
The use of Technology in Suicide Prevention Larsen, Mark Erik* <i>Univ. of New South Wales</i> ; Cummins, Nicholas <i>Univ. of New South Wales</i> ; Boonstra, Tjeerd <i>Univ. of New South Wales</i> ; O'Dea, Bridianne <i>Univ. of New South Wales</i> ; Tighe, Joe <i>Univ. of New South Wales</i> ; Nicholas, Jennifer <i>Univ. of New South Wales</i> ; Shand, Fiona <i>Univ. of New South Wales</i> ; Epps, Julien <i>The Univ. of New South Wales</i> ; Christensen, Helen <i>Univ. of New South Wales</i>		Optimization of Drug Viscosity used in Gas-Powered Liquid Jet Injectors Portaro, Rocco* <i>Concordia Univ.</i> ; Nakayama, Haruka <i>Concordia Univ.</i> ; Ng, Hoi Dick <i>Concordia Univ.</i>	
15:00-15:15	FrET20.3	15:45-16:00	FrET21.6
Monitoring of Compliance on an Individual Treatment through Mobile Innovations Anastasiou, Athanasios* <i>Biomedical Engineering Laboratory, National Technical Univ.</i> ; Giokas, Kostas <i>Biomedical Engineering Laboratory, National Technical Univ.</i> ; Koutsouris, Dimitrios <i>Biomedical Engineering Laboratory, School of Electrical and Comp</i>		Human Feasibility Study of Fluorescence Spectroscopy Guided Optical Biopsy Needle for Prostate Cancer Diagnosis Werahera, Priya N.* <i>Univ. of Colorado Anschutz Medical Campus</i> ; Jason, Edward <i>Precision Biopsy LLC</i> ; Liu, Yongjun <i>Univ. of Colorado Anschutz Medical Campus</i> ; Daily, John W. <i>Univ. of Colorado Boulder</i> ; Arangua, Paul <i>Univ. of Colorado Anschutz Medical Campus</i> ; Jones, Clifford <i>Univ. of Colorado Anschutz Medical Campus</i> ; Nash, S. Russell <i>Centennial Pathologist, PC</i> ; Morrell, Michael <i>Precision Biopsy, LLC</i> ; Crawford, E. David <i>Univ. of Colorado Anschutz Medical Campus</i>	
15:15-15:30	FrET20.4	FrFPoT1: 16:00-17:30	Gold Room
Real-Time Multimedia Communications in Medical Emergency – The CONCERTO Project Solution Martini, Maria* <i>Kingston Univ. London</i> ; Mazzotti, Matteo <i>Univ. of Bologna</i> ; Eeriwarawe Ranasinghe Hewage, Chaminda Thushara <i>Kingston Univ.-London</i> ; Iacobelli, Lorenzo <i>Thales Communications & Security</i> ; Bergeron, Cyril <i>Thales Communications and Security</i> ; Amon, Peter <i>Siemens Corporate Technology</i> ; Savino, Ketty <i>Cardiology Univ. of Perugia</i>		1.LB1 Biomedical Signal Processing (Poster Session)	
15:30-15:45	FrET20.5	16:00-17:30	FrFPoT1.1
An Environment for Representing and using Medical Checklists on Mobile Devices Losiouk, Eleonora* <i>Univ. degli studi di Pavia</i> ; Lanzola, Giordano <i>Univ. of Pavia</i> ; Visetti, Enrico <i>AUSL Valle d'Aosta</i> ; Quaglini, Silvana <i>Univ. of Pavia</i>		Neurocritical Care Informatics: Leveraging Data and Models to Improve the Care of Brain-Injured Patients Fanelli, Andrea <i>Massachusetts Institute of Technology</i> ; Heldt, Thomas* <i>Massachusetts Institute of Technology</i>	
15:45-16:00	FrET20.6	16:00-17:30	FrFPoT1.2
Real Time Heart Rate Variability Assessment from Android Smartphone Camera Photoplethysmography: Postural and Device Influences Guede-Fernandez, Federico* <i>Univ. Politècnica de Catalunya</i> ; Ferrer-Mileo, Victor <i>Univ. Politècnica de Catalunya</i> ; Ramos-Castro, Juan <i>Univ. Politècnica de Catalunya</i> ; Fernandez-Chimeno, Mireya <i>Technical Univ. of Catalonia</i> ; Garcia-Gonzalez, Miguel A. <i>Univ. Politècnica de Catalunya</i>		SMUAP Decomposition based on Sequentially-Modified Template Matching Method during Motion Akazawa, Jun* <i>Meiji Univ. of Integrative Medicine</i> ; Okuno, Ryuhei <i>Setsuman Univ.</i>	
FrET21: 14:30-16:00	Suite 8	16:00-17:30	FrFPoT1.3
9.10 Interventional Technologies (Oral Session) Chair: Hunter, Ian <i>Massachusetts Institute of Technology</i> Co-Chair: Werahera, Priya N. <i>University of Colorado Anschutz Medical Campus</i>		In-Vivo Electrical Impedance Measurement in Mastoid Bone Wyss Balmer, Thomas* <i>Univ. of Berne Institute of Surgical Technology and Biomech</i>	
14:30-14:45	FrET21.1	16:00-17:30	FrFPoT1.4
Jet Injection of a Monoclonal Antibody: A Preliminary Study Hogan, N. Catherine* <i>Massachusetts Institute of Technology</i> ; Cloutier, Alison <i>Georgia Institute of Technology</i> ; Hunter, Ian <i>Massachusetts Institute of Technology</i>		Seizure Prediction by Extracting Relative and Fine Changes of Signal Transitions Parvez, Mohammad Zavid* <i>Charles Sturt Univ.</i> ; Paul, Manoranjan <i>Charles Sturt Univ.</i>	
		16:00-17:30	FrFPoT1.5
		ECG Signal Processing for Heart Rate Extraction Fedotov, Alexander <i>Samara State Aerospace Univ.</i> ; Akulova, Anna* <i>Samara State Aerospace Univ.</i> ; Akulov, Sergey <i>Samara State Aerospace Univ.</i>	
		16:00-17:30	FrFPoT1.6
		A Portable Device for Electrogastrography Budillon, Alessandra* <i>Univ. of Naples Parthenope</i> ; Grassini, Giuseppe <i>Univ. of Naples Parthenope</i>	

- 16:00-17:30 FrFPoT1.7
Accelerometer-Based Signal Extraction Algorithm for Obstructive Sleep Apnea Hypopnea Preliminary Screening
Panigrahi, Bivas *Chang Gung Univ.*; Lee, Ming-Yih* *Chang Gung Univ.*; Lin, Wen-Yen *Chang Gung Univ.*; Lee, Chung shu *Chang Gung Memorial Hospital*; Chen, Ning-Hung *Chang Gung Memorial Hospital*
- 16:00-17:30 FrFPoT1.8
Automatic Classification of Saccadic versus Fixation Phases for Head-Free Gaze Shifts using Supervised Support Vector Machines with Gaussian Kernels
Haji Abolhassani, Iman* *McGill Univ.*; Galiana, Henrietta L. *McGill Univ.*
- 16:00-17:30 FrFPoT1.9
Machine Learning based Diagnosis of Schizophrenia using Combined Sensor-Level and Source-Level EEG Features
Shim, Miseon *Hanyang Univ.*; Kim, Do-Won *Hanyang Univ.*; Lee, Seung Hwan *Inje Univ. Ilsanpaik Hospital*; Im, Chang-Hwan* *Hanyang Univ.*
- 16:00-17:30 FrFPoT1.10
Analysis of the Bladder Cancer Transition Mechanism using a 3D Bladder-on-a-Chip
Lee, Eojin *Korea Institute of Science and Technology*; Jeon, Hojeong* *Korea Institute of Science and Technology*; Kwon, Chunga *Korea Institute of Science and Technology*; Park, Jaeho *Korea Institute of Science and Technology*
- 16:00-17:30 FrFPoT1.11
Time and Frequency Domain Feature Quantification for Snoring Episodes using Wearable Sensors in Home Environment
Panigrahi, Bivas *Chang Gung Univ.*; Lee, Ming-Yih* *Chang Gung Univ.*; Lin, Wen-Yen *Chang Gung Univ.*; Lee, Chung shu *Chang Gung Memorial Hospital*; Chen, Ning-Hung *Chang Gung Memorial Hospital*
- 16:00-17:30 FrFPoT1.12
Sparse Source Separation of High-Density Intramuscular EMG Signals
Negro, Francesco* *Bernstein Center for Computational Neuroscience, Univ. Medic*; Muceli, Silvia *Univ. Medical Center Göttingen*; Lin, Chuang *Univ. Medical Center Goettingen, Georg-August Univ.*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medic*
- 16:00-17:30 FrFPoT1.13
Frequency Analysis of Urinary Bladder Pre-Voiding Activity in Normal and Overactive Human Detrusor: A Pilot Study
Zolliker, Daniel *Univ. of Bern*; Niederhauser, Thomas *Bern Univ. of Applied Sciences*; Grämiger, Michelle *Univ. Klinik für Urologie, Inselspital Bern*; van Mastrigt, Ron *Erasmus Medical Center, Burkhard, Fiona Univ. Hospital Bern Switzerland*; Obrist, Dominik *ARTORG Center, Univ. of Bern, Bern*; Clavica, Francesco* *ARTORG Center, Univ. of Bern*
- 16:00-17:30 FrFPoT1.14
New Adaptive Algorithm to Determine Sleep Onset Latency
Choi, Soo Beom *Yonsei Univ.*; Kim, Sung Woo *LG Electronics Advanced Research Institute*; Chung, Jai Won *Yonsei Univ.*; Park, Jee Soo *Yonsei Univ. College of Medicine*; Noh, Hyung Wook *Electronics and Telecommunications Research Institute*; Kim, Deok Won* *Yonsei Univ. College of Medicine*
- 16:00-17:30 FrFPoT1.15
A Research on the Feasibility of Cardiac Output Estimation using Photoplethysmogram and Ballistocardiogram
Kim, Hyun Jo *St. Paul's School*; Kim, Heejin *Seoul National Univ.*; Ku, Yunseo *Seoul National Univ., Samsung Advanced Institute of Technolo*; Yoon, Hyung-Jin* *Seoul National Univ.*
- 16:00-17:30 FrFPoT1.16
Reducing the Dimensionality of Brain Signal using Graph based Filtering
Liu, Rui *Singapore Univ. of Technology and Design*; Nejati, Hossein* *sutd.edu.sg*; Cheung, Ngai-Man *Singapore Univ. of Technology and Design*
- 16:00-17:30 FrFPoT1.17
Robust Human Recognition using Heartbeat Feature
Bashar, Khayrul* *Ochanomizu Univ.*; Yoshida, Hiroaki *Ochanomizu Univ.*
- 16:00-17:30 FrFPoT1.18
Potential use of Microsaccade in Personal Identification
Yoneya, Makoto* *NTT Communication Science Laboratories*; Furukawa, Shigeto *Nippon Telegraph and Telephone Corp.*; Kashino, Makio *Nippon Telegraph and Telephone Corp.*
- 16:00-17:30 FrFPoT1.19
Acoustic Characterization of the Physical Dynamics of Single Phase-Change Droplets
Kang, Shih-Tsung *National Tsing Hua Univ.*; Kao, Wei-Pu *Dept. of Biomedical Engineering and Environmental Sciences*; Yeh, Chih-Kuang* *National Tsing Hua Univ.*
- 16:00-17:30 FrFPoT1.20
Comparison of Preferences of Kawaii Characters by Eye Tracking between Genders and Generations of Japanese
Ohkura, Michiko* *Shibaura Institute of Tech.*; Iida, Ikumi *Shibaura Institute of Tech.*; Sano, Hiroya *Shibaura Institute of Tech.*; Morishita, Wataru *Shibaura Institute of Tech.*
- 16:00-17:30 FrFPoT1.21
Newborn Acute Pain Monitoring using Heart Rate Variability Analysis
De Jonckheere, J.* *CHRU de Lille*; Logier, R. *CHRU de Lille*
- 16:00-17:30 FrFPoT1.22
A Dynamic Harmonic Regression Algorithm for Time-Frequency Analysis of Neurophysiologic Signals
Krishnaswamy, Pavitra* *Massachusetts Institute of Technology*; Nolan, Michael *MIT Institute for Medical Engineering and Science*; Zachs, Daniel *Dept. of Anesthesia, Critical Care and Pain Medicine, Massa*; Van Dort, Christa *MIT Dept. of Brain and Cognitive Sciences*; Brown, Emery *MIT*
- 16:00-17:30 FrFPoT1.23
A Microsaccadic Latency Analysis of the Amblyopic Eye
Kanoh, Yuji *Kinki Univ.*; Kohama, Takeshi* *Faculty of Biology-Oriented Science and Technology, Kinki Univ.*; Nakai, Yuma *Kinki Univ.*; Yoshida, Hisashi *Kinki Univ.*
- 16:00-17:30 FrFPoT1.24
Effect of Music on Standing Stability
Perdomo, Oscar Julian* *Univ. Manuela Beltran*; Argothy, Rodrigo Esteban *Univ. Manuela Beltran*; Wilches, Carlos Andres *Univ. Manuela Beltran*; Perdomo, Cesar *Univ. Distrital Francisco José de Caldas*
- 16:00-17:30 FrFPoT1.25
Estimating Cognitive Performance Change using Heart Rate Variability
Tsunoda, Keisuke* *NTT Service Evolution Labs, NTT Corporation*; Chiba, Akihiro *NTT Corporation*; Chigira, Hiroshi *NTT Corporation*; Ura, Tetsuya *NTT Service Evolution Labs*; Mizuno, Osamu *NTT Service Evolution Labs*; Tanaka, Tomohiro *NTT Service Evolution Labs*
- 16:00-17:30 FrFPoT1.26
Changes in Cerebrovascular Time Constant in Response to Lower Body Negative Pressure
Kasprowicz, Magdalena* *Wroclaw Univ. of Technology*; Czosnyka, Marek *Univ. of Cambridge*; Placek, Michal *Marcin Wroclaw Univ. of Technology*; Diehl, Rolf R. *Krupp Hospital*; Haubrich, Christina *Aachen Univ.*
- 16:00-17:30 FrFPoT1.27
Noninvasive Assessments of Swallowing Function by Sound Frequency Analysis
Yagi, Naomi* *Kyoto Univ.*; Nagami, Shinsuke *Kyoto Univ.*; Ueno, Hiroshi *Jcraft Co., Ltd.*; Yabe, Toru *Murata Manufacturing Co., Ltd.*; Kayashita, Jun *Prefectural Univ. of Hiroshima*; Lin, Meng-Kuan *Hyogo College of Medicine*; Oke, Yoshihiko *Hyogo College of Medicine*; Oku, Yoshitaka *Hyogo College of Medicine*

- 16:00-17:30 FrFPoT1.28
Indices for the Assessment of Glycemic Control Quality based on Pre-Prandial Glucose Monitoring in Subjects under DPP-4 Inhibitors
 Tura, Andrea* *CNR; Farngrén, Johan Dept. of Clinical Sciences, Lund Univ.*; Schweizer, Anja *Novartis Pharma AG*; Foley, James E. *Novartis Pharmaceuticals Corp.*; Pacini, Giovanni *CNR*; Ahrén, Bo *Dept. of Clinical Sciences, Lund Univ.*
- 16:00-17:30 FrFPoT1.29
Standardized Push up during a Physical Examination by Distance, Forces and EMG Analysis
 Perdomo, Oscar Julian* *Univ. Manuela Beltrán*; Barbon, Cristian *UMB*; Hakspiel, Sebastian *UMB*; Hurtado, Carlo *UMB*; Wilches, Carlos Andres *Univ. Manuela Beltrán*
- 16:00-17:30 FrFPoT1.30
Estimating Critical Fusion Frequency from Heart Rate Variability
 Chiba, Akihiro* *NTT Corporation*; Tsunoda, Keisuke *NTT Service Evolution Labs, NTT Corporation*; Chigira, Hiroshi *NTT Corporation*; Ura, Tetsuya *NTT Service Evolution Labs*; Mizuno, Osamu *NTT Service Evolution Labs*; Tanaka, Tomohiro *NTT Service Evolution Labs*
- 16:00-17:30 FrFPoT1.31
Separation of Ambulatory Skin Conductance in Day and Sleep Activities based on Activity Magnitude and Sleep-Wake Scoring
 Sano, Akane* *Massachusetts Institute of Technology*; Fedor, Szymon *Massachusetts Institute of Technology*; Picard, Rosalind *Massachusetts Institute of Technology*
- FrFPoT2: 16:00-17:30 Gold Room
2.LB1 Biomedical Imaging and Image Processing (Poster Session)
- 16:00-17:30 FrFPoT2.1
Automatic Segmentation of Corneal Endothelial Cells Contour
 Scarpa, F.* *Univ. of Padova*; Ruggeri, A. *Univ. of Padua*
- 16:00-17:30 FrFPoT2.2
Evaluating Tortuosity in Retinal Fundus Images of Diabetic Patients Who Progressed to Diabetic Retinopathy
 Leontidis, Georgios* *Univ. of Lincoln*; Wigdahl, Jeffrey *Univ. of Padova*; Al-Diri, Bashir *The Univ. of Lincoln*; Ruggeri, Alfredo *Univ. of Padua*; Hunter, Andrew *Univ. of Lincoln*
- 16:00-17:30 FrFPoT2.3
Automatic Analysis of General Movements in Infants
 Orlandi, Silvia* *Univ. degli Studi di Firenze*; Bandini, Andrea *Univ. of Florence*; Pala, Pietro *Univ. degli Studi di Firenze*; Brahimi, Denada *Univ. degli Studi di Firenze*; Manfredi, Claudia *Univ. degli Studi di Firenze*
- 16:00-17:30 FrFPoT2.4
Detection of Early Stages of Neurodegeneration in Alzheimer's Disease on MRI using Chaos and Nonlinear Dynamics
 Abe, Taishi* *Univ. of Aizu*; Pham, Tuan D. *Univ. of Aizu*
- 16:00-17:30 FrFPoT2.5
Robotic Target Following using Two Orthogonal Ultrasound Images
 Onogi, Shinya* *Kyushu Univ.*; Wu, Jiawei *Tokyo Univ. of Agriculture and Technology*; Baba, Minoru *Tokyo Univ. of Agriculture and Technology*; Hashizume, Makoto *Kyushu Univ.*; Masuda, Kohji *Tokyo Univ. A&T*
- 16:00-17:30 FrFPoT2.6
Preliminary Study on Automated Blood Vessel Extraction using High-Order Local Autocorrelation on Retinal Images
 Hatanaka, Yuji* *Univ. of Shiga Prefecture*; Samo, Kazuki *Univ. of Shiga Prefecture*; Tajima, Mikiya *Univ. of Shiga Prefecture*; Okumura, Susumu *Univ. of Shiga Prefecture*; Ogohara, Kazunori *Univ. of Shiga Prefecture*; Muramatsu, Chisako *Gifu Univ.*; Fujita, Hiroshi *Gifu Univ.*
- 16:00-17:30 FrFPoT2.7
A Novel Undersampling Scheme of Wavelet-Encoded MR Imaging
 Xie, Hua* *Texas Tech Univ.*; Bosshard, John *Texas A&M Univ.*; Hill, Jason Edward *Texas Tech Univ.*; Wright, Steven M. *Texas A&M Univ.*; Mitra, Sunanda *Texas Tech Univ.*
- 16:00-17:30 FrFPoT2.8
An Evaluation of Pancreatic Damage Caused by Clamping using Image Processing of Prepared Slide
 KIM, Daeyoung* *Teikyo Heisei Univ.*; Kobayashi, Etsuko *The Univ. of Tokyo*; Toyoda, Masayuki *Dep. of Surgery, Teikyo Univ. School of Medicine*; Kondo, Fukuo *Dep. of Pathology, Teikyo Univ. School of Medicine*; Sakuma, Ichiro *The Univ. of Tokyo*; Asano, Takehide *Clinical Research Center, National Hospital Organization Chiba-E*
- 16:00-17:30 FrFPoT2.9
Modular Organization of Resting State Functional Networks in Patients with Multiple Sclerosis
 Eqlimi, Ehsan* *Dept. of Medical Physics & Biomedical Engineering, School o*; Alizadeh Shalchy, Mahsa *KNTU, Iran*; Karami, Elahe *Tehran Univ. of Medical Sciences*; Shojaei, Ahmad *Basir Eye Health Research Center, Tehran, Iran*; Aarabi, Mohammad Hadi *Students' Scientific Research Center, Tehran Univ. of Medica*; Safabakhsh, Hamidreza *Basir Eye Health Research Center, Tehran, Iran*; Riyahi Alam, Nader *TUMS*
- 16:00-17:30 FrFPoT2.10
The Effects of Low-Passed Dynamic Random-Dot Patterns on Resting-State Brain Functions
 Namikawa, Hiroki* *Kinki Univ.*; Okamoto, Ryota *Kinki Univ.*; Kohama, Takeshi *Faculty of Biology-Oriented Science and Technology, Kinki Univ.*; Yoshida, Hisashi *Kinki Univ.*
- 16:00-17:30 FrFPoT2.11
An Affordable Diagnostic Pseudo 3D Retina Image Synthesis
 Hegde, Bharath *Forus Health Private Limited*; Bhatt, Mahabaleswara R *Forus Health Private Limited*; Rao, Shyam Vasudeva* *Forus Health Pvt Ltd*
- 16:00-17:30 FrFPoT2.12
Hybrid Pressure Sensor based on Conductive Fabric and Nanoweb
 Jeong, You Jeong* *Kyung Hee Univ.*; Wi, Hun *KyungHee Univ.*; Oh, Tong In *Kyunghee Univ.*; Woo, Eung Je *Kyung Hee Univ.*; Kim, Kap Jin *Kyung Hee Univ.*
- 16:00-17:30 FrFPoT2.13
Automatic Bacterial Growth Analysis using Time-Lapse Images for Rapid Antibacterial Susceptibility Tests
 Lee, Ji Soo *Seoul National Univ.*; Lee, Jung Chan *Seoul National Univ.*; Kim, Hee Chan* *Seoul National Univ.*
- 16:00-17:30 FrFPoT2.14
Detection of Firing Neurons from Calcium Time-Lapse Images using Velocity Field Constraint
 Hachi, Siham* *Univ. of Luxembourg*; Lucumi Moreno, Edinson *Luxembourg Centre for Systems BioMedicine, Univ. of Luxembo*; Desmet, An-Sofie *Lab. for Enteric NeuroScience (LENS), TARGID, Univ. of Leuv*; Vanden Berghe, Pieter *Lab. for Enteric NeuroScience (LENS), TARGID, Univ. of Leuv*; Fleming, Ronan M.T. *Luxembourg Centre for Systems BioMedicine, Univ. of Luxembo*
- 16:00-17:30 FrFPoT2.15
Classification of Protein Localizations of Novel Endoplasmic Reticulum Genes by Hierarchical Cluster Analysis
 Chen, Chia-Chun *Chung Yuan Christian Univ.*; Lin, Chung-Chih *National Yang Ming Univ.*; Dan, Han-Wei *Chung Yuan Christian Univ.*; Simpson, Jeremy C. *Univ. College Dublin*; Tsai, Yuh-Show* *Chung Yuan Christian Univ.*
- 16:00-17:30 FrFPoT2.16
Computer Aided Diagnostic for the Classification of Lung Nodules
 Gonçalves, Luís* *Faculty of Engineering of the Univ. of Porto*; Novo, Jorge *Univ. da Coruña*; Campilho, Aurélio *Univ. do Porto, Instituto de Engenharia Biomédica*

- 16:00-17:30 FrFPoT2.17
A Simple Reproducibility Evaluation Method of Short Association White Matter Fiber Clustering Results for HARDI Data
 Roman, Godoy, Claudio Esteban *Univ. de Concepcion*; Guevara, Miguel *Univ. of Concepcion*; Duclap, Delphine *I2BM, CEA-NeuroSpin*; Lebois, Alice *I2BM, Cea, NeuroSpin*; Poupon, Cyril *CEA I2BM NeuroSpin*; Mangin, Jean-François *CEA I2BM NeuroSpin*; Guevara, Pamela* *Univ. of Concepcion*
- 16:00-17:30 FrFPoT2.18
Characterizing Malignant and Benign Breast Tumors by Dielectric Properties
 Short, Jakob *Wilkes Univ.*; Veet, Tiffany *Wilkes Univ.*; Sabouni, Abas* *Wilkes Univ.*
- 16:00-17:30 FrFPoT2.19
Novel Microwave Imaging Setup for Breast Cancer Detection
 Short, Jakob *Wilkes Univ.*; Mancini, Alyssa *Wilkes Univ.*; Sabouni, Abas* *Wilkes Univ.*
- 16:00-17:30 FrFPoT2.20
Novel Contrast Agent for Microwave Breast Cancer Imaging
 Short, Jakob *Wilkes Univ.*; Sabouni, Abas* *Wilkes Univ.*
- 16:00-17:30 FrFPoT2.21
Acoustic Trapping Technique for Determination of Invasiveness of a Breast Cancer Cell
 Hwang, Jae Youn* *Daegu Gyeongbuk Institute of Science and Technology*; Park, Jin Man *Daegu Gyeongbuk Institute of Science & Technology*; Yoon, Chi Woo *Univ. of Southern California*; Lim, Hae Gyun *Univ. of Southern California*; Cheon, Dong Young *Kwangwoon Univ.*; Lee, Jungwoo *Kwangwoon Univ.*; Shung, K. Kirk *Univ. of Southern California*
- 16:00-17:30 FrFPoT2.22
Breast Cancer Cell Characterization in Turbid Media by using Acoustic Tweezers
 Park, Jin Man *Daegu Gyeongbuk Institute of Science & Tech.*; Shung, K. Kirk *Univ. of Southern California*; Hwang, Jae Youn* *Daegu Gyeongbuk Institute of Science and Tech.*
- 16:00-17:30 FrFPoT2.23
Development of a Multimode Endoscope for Detection of Gastric Cancers
 Yun, Sehyo *Daegu Gyeongbuk Institute of Science & Technology*; Hwang, Jae Youn* *Daegu Gyeongbuk Institute of Science and Technology*
- 16:00-17:30 FrFPoT2.24
Gabor Wavelets to Characterize Different Types of Cardiac Hypertrophy
 Damerjian, Vera* *Univ. Paris-Est Créteil*; Tankyevych, Olena *Paris-Est Univ.*; Petit, Eric *Univ. Paris 12 Val-de-Marne*; Guellich, Aziz *Hopital Henri Mondor*; Damy, Thibaud *Hopital Henri Mondor*
- 16:00-17:30 FrFPoT2.25
Tissue Anisotropy on Ultrasound Strain Imaging: Comparison between Radio-Frequency-Based Block Matching and Elastic Registration
 Li, He *The Univ. of Hong Kong*; Lee, Wei-Ning* *The Univ. of Hong Kong*
- 16:00-17:30 FrFPoT2.26
Probabilistic Determination of Brain Tumor Locations
 Cotur, Yasin *Bogazici Univ.*; Ozkan, Mehmed* *Bogazici Univ.*; Demir, Ali *Bogazici Univ.*; Altunoglu, Hale *Baskent Univ. Medical School*; Agildere, Ahmet *Muhtesem Baskent Univ. Medical School*; Alkan, Ozlem *Baskent Univ. Medical School*; Ulug, Aziz *Bogazici Univ.*
- 16:00-17:30 FrFPoT2.27
Bias Correction and Segmentation of Brain MRI Data using Spatial Fuzzy C-Means Algorithm
 S. Salem, Wedad* *Dept. of Computers and Systems, Electronics Research Instit.*; F. Ali, Hesham *Dept. of Computers and Systems, Electronics Research Instit.*; F. Seddik, Ahmed *Dept. of Biomedical Engineering Faculty of Engineering, Helwan Univ.*
- 16:00-17:30 FrFPoT2.28
Neural Basis for Enhanced Classification Accuracy of Reduced Dimensionality Information Rich Representations of Scenes
 Thakoor, Kaveri* *Univ. of Southern California*
- 16:00-17:30 FrFPoT2.29
Towards a Reference Database for Intelligent Capsule Endoscopy
 Iakovidis, Dimitris* *Technological Educational Institute of Central Greece*; Koulaouzidis, Anastasios *The Royal Infirmary of Edinburgh*
- 16:00-17:30 FrFPoT2.30
Rapid Prototyping of Clavicle Fracture Model for Orthopedic Surgery Planning
 Lee, Tae Soo* *Chungbuk Natl. Univ.*; Lee, Jeong Pyo *Chungbuk Natl. Univ.*; Moon, Seong Yong *Chungbuk Natl. Univ.*
- 16:00-17:30 FrFPoT2.31
Evaluation of Anemia in Wistar Rats and Dogs Exploring Cell Phone Camera
 S. Souza, Wellington *UFPE*; de Castro Neto, José *UFPE*; Neves, Wendell W. *UFPE*; de Araujo, Renato *Evangelista* Federal Univ. of Pernambuco*
- 16:00-17:30 FrFPoT2.32
An Automated System for Skin Surface Topographic Assessment using in Vivo HD-OCT
 Yow, Ai Ping* *Institute for Infocomm Research*; Cheng, Jun *Institute for Infocomm Research, AStar*; Li, Annan *Institute for Infocomm Research, AStar*; Wall, Carolin *Institute for Infocomm Research, Agency for Science, Technology*; Liu, Jiang *Institute for Infocomm Research, A STAR*; Wong, Damon *Institute for Infocomm Research*; Tey, Hongliang *National Skin Center, Singapore*
- 16:00-17:30 FrFPoT2.33
High Resolution Wireless Ultrasound Imaging based on Compressed Sensing
 Eilam, Alon *Technion Israel Institute of Tech.*; Chernyakova, Tanya *The Technion, Israel Institute of Tech.*; Londner, Samuel* *Technion Israel Institute of Tech.*; Chocron, Armand *Technion Israel Institute of Tech.*; Weizman, Lior *Technion, Israel Institute of Tech.*; Kempinski, Arcady *GE Healthcare*; Eldar, Yonina *The Technion, Israel Institute of Tech.*
- 16:00-17:30 FrFPoT2.34
A Hough Transform-Based Breast Mass Detection Algorithm on Digital Breast Tomosynthesis Images
 Jeong, Ji-Wook* *ETRI*; Chae, Seung-Hoon *ETRI*; Lee, Sooyeul *Electronics & Telecom Research Inst*; Chae, Eun Young *Asan Medical Center*; Kim, Hak Hee *Asan Medical Center*; Choi, Young Wook *Korea ElectroTechnology Research Institute*
- 16:00-17:30 FrFPoT2.35
Automatic Determination of Blood Flow Velocity in Brain Microvessel of Rat using a Small Implantable CMOS Imaging Device
 Dejima, Haruka *Nara Institute of Science and Tech.*; Sato, Tetsuo* *Nara Inst of Science & Tech*; Haruta, Makito *Nara Institute of Science and Tech.*; Nakazawa, Hitomi *Nara Institute of Science and Tech.*; Tokuda, Takashi *Nara Institute of Science and Tech.*; Ohta, Jun *Nara Institute of Science and Tech.*; Kanaya, Shigehiko *Nara Institute of Science and Tech.*
- 16:00-17:30 FrFPoT2.36
An Implantable Hemodynamic Imaging Device for Observing the Process of Recovery from Cerebrovascular Disease
 Haruta, Makito* *Nara Institute of Science and Technology*; Sunaga, Yoshinori *Nara Institute of Science and Technology*; Yamaguchi, Takahiro *Nara Institute of Science and Technology*; Takehara, Hironari *Nara Institute of Science and Technology*; Ohta, Yasumi *Nara Institute of Science and Technology*; Motoyama, Mayumi *Nara Institute of Science and Technology*; Takehara, Hiroaki *Nara Institute of Science and Technology*; Noda, Toshihiko *Nara Institute of Science and Technology*; Sasagawa, Kiyotaka *Nara Institute of Science and Technology*; Tokuda, Takashi *Nara Institute of Science and Technology*; Ohta, Jun *Nara Institute of Science and Technology*

- 16:00-17:30 FrFPoT2.37
Measurement of the Resonance Characteristics of Microbubbles Stabilized by Pluronic F68 using a Laser Doppler Vibrometer
 Ando, Yu* *Doshisha Univ.*; Nishimura, Jun *Doshisha Univ.*; Kagawa, Yukihiro *Doshisha Univ.*; Tabata, Hiraku *Doshisha Univ.*, *Institute Charles Sadron*; Yoshida, Kenji *Chiba Univ.*; Koyama, Daisuke *Doshisha Univ.*; Watanabe, Yoshiaki *Doshisha Univ.*; Krafft, Marie Pierre *Institute Charles Sadron*
- 16:00-17:30 FrFPoT2.38
Recovery of Arterial and Venous Contrast Transit Dynamics in CT Brain Angiography: A Feasibility Study
 Barra, Beatrice* *Politecnico di Milano*; De Momi, Elena *Politecnico di Milano*; Ferrigno, Giancarlo *Politecnico di Milano*; Baselli, Giuseppe *Politecnico di Milano*; Cardinale, Francesco *Niguarda Hospital*
- 16:00-17:30 FrFPoT2.39
VR See-through Magnifier: An Interactive Volumetric Medical Data Visualization Technique for Exploring Occluded Features
 Chang, HanYu *National Taipei Univ. of Technology*; Chiang, Pei-ying* *National Taipei Univ. of Technology*; Hsieh, Tung-Ju *National Taipei Univ. of Technology*; Chen, Chun-Yuan *National Taipei Univ. of Technology*
- FrFPoT3: 16:00-17:30 Gold Room
3.LB1 Bioinstrumentation, Biosensors and Bio-Micro/Nano Technologies (Poster Session)
- 16:00-17:30 FrFPoT3.1
Non-Invasive Sensors for Wound Monitoring and Therapy
 Salvo, Pietro* *Univ. of Pisa*; Melai, Bernardo *Dept. of Chemistry and Industrial Chemistry, Univ. of, Bianchi, Sabrina Dept. of Chemistry and Industrial Chemistry, Univ. of, Calisi, Nicola Dept. of Chemistry and Industrial Chemistry, Univ. of, Dini, Valentina Wound healing research unit, Clinica Dermatologica, Univ. o; Romanelli, Marco Wound healing research unit, Clinica Dermatologica, Univ. o; Castelvetro, Valter Dept. of Chemistry and Industrial Chemistry, Univ. of, Paoletti, Clara Dept. of Chemistry and Industrial Chemistry, Univ. of, Politino, Consuelo Dept. of Chemistry and Industrial Chemistry, Univ. of, Di Francesco, Fabio *Univ. of Pisa**
- 16:00-17:30 FrFPoT3.2
Electrochemical Biosensor based on MoS₂-Graphene and IgG-HRP/ALP Nanocomposite
 Kim, Hyeong-U *Sungkyunkwan Univ. (SKKU)*; Kim, Hyeoun *Korean Electronics Technology Institute*; Ahn, Chisung *Sungkyunkwan Univ.*, *Saint*; Kulkarni, Atul *Sungkyunkwan Univ.*; Lee, Min-Ho *Korea Electronics Technology Institute*; Taesung, Kim* *Sungkyunkwan Univ.*, *Mechanical Engineering*
- 16:00-17:30 FrFPoT3.3
Development of a Perfusion Bioreactor used for Stem Cells Large-Scale Cultivation
 Hou, Qian *School of Engineering, Sun Yat-Sen Univ.*; Gao, Yu-Bao *School of Engineering, Sun Yat-Sen Univ.*; Huang, Shao-Xiong *School of Engineering, Sun Yat-Sen Univ.*; Tang, Ying *School of Engineering, Sun Yat-Sen Univ.*; Luo, Yu-Xi* *Sun Yat-Sen Univ.*
- 16:00-17:30 FrFPoT3.4
Wireless Multi-Parameter Ear-Lead Smart Sensor System with Fingerprint Identity Management in M-Health
 Celik, Numan* *Brunel Univ. London*; Balachandran, Wamadeva *Brunel Univ.*; Manivannan, Nadarajah *Brunel Univ.*
- 16:00-17:30 FrFPoT3.5
Angiogenesis Imaging in a Cell Culture Microfluidic Device Mimicking the Tumor Microenvironment
 Kadokura, Kanae* *Keio Univ.*; Sato, Asako *Keio Univ.*; Uchida, Hideyuki *Keio Univ.*; Tsukada, Kosuke *Keio Univ.*
- 16:00-17:30 FrFPoT3.6
Loss Tangent as a Bioimpedance Parameter – Ischemic Small Intestine
 Strand-Amundsen, Runar* *Univ. of Oslo, Dept. of Physics*; Ruud, Tom Erik *Dept. of Surgery, Baerum Hospital*; Aasen, Ansgar O. *Oslo Univ. Hospital*; Kalvøy, Håvard *Rikshospitalet, Oslo Univ. Hospital, Oslo, Norway*; Tronstad, Christian *National Hospital of Norway*; Høgetveit, Jan Olav *Oslo Univ. Hospital*
- 16:00-17:30 FrFPoT3.7
Transmission of Information among Cell Assemblies in Engineered Living Hippocampal Networks
 DeMarse, Thomas B.* *Univ. of Florida*; Bhattacharya, Aparajita *Univ. of California Irvine*; Brewer, Gregory *Univ. of California Irvine, Southern Illinois Univ.*; Wheeler, Bruce *Univ. of Florida*
- 16:00-17:30 FrFPoT3.8
A Primary Study on Non-Contact Measurement of Vital Signs using the Microsoft Kinect Sensor
 Ikarashi, Akira* *Aino Univ.*
- 16:00-17:30 FrFPoT3.9
Influence of Interstitial Level of Shear Flow for Human Adipose-Derived Stem Cells (hASCs) in Microfluidic System
 Ahn, Kihoon *Chung-Ang Univ.*; Lee, Gi-Hun *Chung-Ang Univ.*; Park, Joong Yull* *Chung-Ang Univ.*
- 16:00-17:30 FrFPoT3.10
High-Efficiency Single-Cell Loading in Large Microwells using a Hydrodynamic Shuttling Chip
 He, Cheng-Kun* *National Chung Hsing Univ.*; Lin, Ching-Hui *National Health Research Institutes*; Chang, Hao-Chen *National Chung Hsing Univ.*; Chen, Chihchen *National Tsing Hua Univ.*; Hsu, Chia-Hsien *National Health Research Institutes*
- 16:00-17:30 FrFPoT3.11
Targeted Delivery of OncomiR-Inhibiting Peptide Nucleic Acids to Melanoma by pHLIP
 Svoronos, Alexander* *Yale Univ.*; Bahal, Raman *Yale Univ.*; Barrera, Francisco *Yale Univ.*; Meeth, Katrina *Yale Univ.*; Cheng, Christopher *Yale Univ.*; Glazer, Peter *Yale Univ.*; Bosenberg, Marcus *Yale Univ.*; Engelman, Donald *Yale Univ.*
- 16:00-17:30 FrFPoT3.12
Optimization of Implanted Miniaturized Helix Antenna for Drug Delivery Control
 Mermigkas, Panagiotis* *National Technical Univ. of Athens*; Christopoulou, Maria *National Technical Univ. of Athens*; Nikita, Konstantina *National Technical Univ. of Athens*
- 16:00-17:30 FrFPoT3.13
Centrifugal Microfluidic-Based Viscometer
 Park, Jiheum *Seoul National Univ.*; Lee, Jung Chan* *Seoul National Univ.*; Kim, Hee Chan *Seoul National Univ.*
- 16:00-17:30 FrFPoT3.14
Development of a Fluidic Gripper for Isolated Cardiomyocytes
 Yamaguchi, Yohei* *Okayama Univ.*, *Graduate School of Medicine, Dentistry and Pha*; Yamaguchi, Yasuyo *Okayama Univ.*; Wakimoto, Shuichi *Okayama Univ.*; Iribe, Gentaro *Okayama Univ. Graduate School of Medicine, Dentistry and Ph*; Naruse, Keiji *Okayama Univ. Graduate School of Medicine, Dentistry and Pha*
- 16:00-17:30 FrFPoT3.15
Voxel-Based Pose-Deformable Models with Human Anatomy by Kinect for Electromagnetic Simulation
 Nagaoka, Tomoaki* *National Institute Info & Comm Tech*; Watanabe, Soichi *Nat'l Inst of Information & Comms Tech*
- 16:00-17:30 FrFPoT3.16
A Novel Nanoporous Platinum Electrode for EEG Signal Quality Enhancement
 Kim, Do Youn *Interdisciplinary Program, Bioengineering, Graduate School, Seou*; Ku, Yunseo *Seoul National Univ.*, *Samsung Advanced Institute of Technolo*; Kwon, Chiheon *Seoul National Univ.*; Ahn, Joong Woo *Seoul National Univ.*; Kim, Hee Chan* *Seoul National Univ.*

- 16:00-17:30 FrFPoT3.17
Distance Dependent Activation of Dissociated Hippocampal Network by Tetanic Stimulation
 Tanaka, Yukimi* *The Univ. of Tokyo*; Isomura, Takuya *The Univ. of Tokyo*; Shimba, Kenta *Univ. of Tokyo*; Kotani, Kiyoshi *Univ. of Tokyo*; Jimbo, Yasuhiko *Univ. of Tokyo*
- 16:00-17:30 FrFPoT3.18
Efficient Capture of Single Tumor Cells using a Bypass Integrated 3-Dimensional Microfluidic Trap Array
 Lee, Jusin *Hanyang Univ.*; Yoon, Yousang *Hanyang Univ.*; Kim, Rae-Kwon *Hanyang Univ.*; Lee, Su-Jae *Hanyang Univ.*; Sul, Onejae *Hanyang Univ.*; Lee, Seung-Beck* *Hanyang Univ.*
- 16:00-17:30 FrFPoT3.19
Texture Sensor with Bio-Mimetic Fingerprint Ridge Structure
 Kim, Hongjun *Hanyang Univ.*; Choi, Eunsuk *Hanyang Univ.*; Kim, JuYoung *Hanyang Univ.*; Kim, Kyu Min *Hanyang Univ.*; Sul, Onejae *Hanyang Univ.*; Lee, Seung-Beck* *Hanyang Univ.*
- 16:00-17:30 FrFPoT3.20
A Versatile CMOS Bio-Electronic Chip with Microfluidic Channels for Point-of-Care Cell Counting Applications
 Huang, Yu-Jie *Taiwan Semiconductor Manufacturing Company*; Lin, Ching-Hui* *National Health Research Institutes*; Huang, J. C. *Taiwan Semiconductor Manufacturing Company*; Hsieh, Kenny *Taiwan Semiconductor Manufacturing Company*; Liu, Yi-Shao *Taiwan Semiconductor Manufacturing Company*; Chen, Mark *Taiwan Semiconductor Manufacturing Company*; Hsu, Chia-Hsien *National Health Research Institutes*
- 16:00-17:30 FrFPoT3.21
A Dual Gate ISFET Array-Based System for Bioelectrochemical Detection of Mammalian Cells
 Wen, Chin-Hua *Taiwan Semiconductor Manufacturing Company*; Lin, Ching-Hui* *National Health Research Institutes*; Huang, J. C. *Taiwan Semiconductor Manufacturing Company*; Hsieh, Kenny *Taiwan Semiconductor Manufacturing Company*; Liu, Yi-Shao *Taiwan Semiconductor Manufacturing Company*; Chen, Mark *Taiwan Semiconductor Manufacturing Company*; Hsu, Chia-Hsien *National Health Research Institutes*
- 16:00-17:30 FrFPoT3.22
A Soft Contact-Lens with Integrated Microfluidic System for Controlled Collection of Basal Tear
 Kim, O. *Univ. of Science and Tech.*; Jeong, J. *Korea Institute of Science and Tech.*; Song, Yong-Won *Korea Institute of Science and Tech.*; Kim, Jinseok* *Korea Institute of Science and Tech.*
- 16:00-17:30 FrFPoT3.23
A Microfluidic Platform for High-Throughput Drug Screening with 3D Cultured Cells
 Chang, Hao-Chen *National Chung Hsing Univ.*; Lin, Ching-Hui *National Health Research Institutes*; Juang, Duane *National Tsing Hua Univ.*; Hsinchu, Taiwan; Lee, Che Yen *National Tsing Hua Univ.*; Chen, Chihchen *National Tsing Hua Univ.*; Hsu, Chia-Hsien* *National Health Research Institutes*
- 16:00-17:30 FrFPoT3.24
Development of a Closed Bag Type Humidifying Container using a Newly Developed Nanofiber Sheet Membranes
 Okazaki, Toshihiko* *Kyushu Univ.*
- 16:00-17:30 FrFPoT3.25
Two-Dimensional Microbubble Collection in an Acoustic Vortex
 Lo, Wei-Chen *Natl. Tsing Hua Univ.*; Kang, Shih-Tsung *Natl. Tsing Hua Univ.*; Yeh, Chih-Kuang* *Natl. Tsing Hua Univ.*
- 16:00-17:30 FrFPoT3.26
Capacitive Sensing for Non-Invasive Breathing and Heart Rate Monitoring in Non-Restrained, Non-Sedated Adult Mice
 González-Sánchez, Carlos *Univ. of Valladolid*; Schmitt, Daniel *Fraunhofer IBMT*; Damm, Ellen *Univ. of Luxembourg*; Schneider, Jochen *Univ. of Luxembourg*; Zimmermann, Heiko *Fraunhofer IBMT*; Fraile, Juan Carlos *Fundacion CARTIF*; Ihmig, Frank* *Fraunhofer IBMT*
- 16:00-17:30 FrFPoT3.27
Development of Customized Alertness and Fatigue Monitoring System for Workers under Critical Environment
 Kim, Dongsoo* *Air Force Academy*; Lee, Wooil *Air Force Academy*; Koo, Hyojin *Air Force Academy*; Hwang, Sunyu *ADD*
- 16:00-17:30 FrFPoT3.28
Label-Free Gold Nanoparticle-Based Colorimetric Assay for Direct Detection of Cryptosporidium using Smartphone
 Luka, George Said *Univ. of British Columbia*; Urmi, Nusrat Jahan *School of Engineering, Univ. of British Columbia*; Singh Bachhal, Jannat *Univ. of British Columbia*; Diaz de Leon Derby, Maria *Univ. of British Columbia*; Van den Berg, André Christiaan* *Univ. of British Columbia*; Roberts, Deborah J. *Univ. of British Columbia*; Najjaran, Homayoun *Univ. of British Columbia*; Hoorfar, Mina *Univ. of British Columbia*
- 16:00-17:30 FrFPoT3.29
Post-Fabrication Detection of Failure Modes in Parylene-Based Neural Probes
 Scopelliti, Matteo *Giuseppe Polytechnic Univ. of Turin*; Mukund, Vidush *Univ. of California, Berkeley*; Dedola, Francesca *Polytechnic of Turin*; Chamanzar, Maysamreza* *Univ. of California Berkeley*; Maharbiz, Michel *Univ. of California, Berkeley*; Blanche, Tim *Univ. of California at Berkeley*
- 16:00-17:30 FrFPoT3.30
Volatility of Pronation and Supination in Children with ADHD
 Kaneko, Miki* *Kyushu Univ.*; Iramina, Keiji *Kyushu Univ., Japan*
- 16:00-17:30 FrFPoT3.31
An Instrument for Quantifying Optical and Mechanical Properties of Soft Tissue Membranes
 Dixon, Alexander William *Univ. of Auckland*; Jor, Jessica *Univ. of Auckland*; Nash, Martyn *Univ. of Auckland*; Nielsen, Poul *The Univ. of Auckland*; Taberner, Andrew* *The Univ. of Auckland*
- 16:00-17:30 FrFPoT3.32
A System with Line Lasers and Webcam for 3D Reconstruction: A Feasibility Study
 Barone, Vinicio* *Univ. Politecnica delle Marche*; Verdini, Federica *Univ. Politecnica delle Marche*; Di Nardo, Francesco *Polytechnic Univ. of Marche*; Burattini, Laura *Univ. Politecnica delle Marche*; Fioretti, Sandro *Univ. Politecnica delle Marche*
- 16:00-17:30 FrFPoT3.33
Development of an Optical Monitoring System of Urine Substances for Home Healthcare
 Tanaka, Shinobu* *Kanazawa Univ.*; Suzuki, Ikuto *Graduate School of Natural Science & Technology, Kanazawa Univ.*; Nogawa, Masamichi *Kanazawa Univ.*; Naito, Hisashi *Kanazawa Univ.*; Ogawa, Mitsuhiro *Teikyo Univ.*; Yamakoshi, Ken-ichi *Kanazawa Univ.*
- 16:00-17:30 FrFPoT3.34
Improving the Efficiency of ECG Monitor for m-Health Applications
 Vasylytsov, Ihor* *Samsung Electronics*; Lee, Seunghwan *Samsung Electronics*; Bak, Changgyu *Samsung Electronics*
- 16:00-17:30 FrFPoT3.35
Supercapacitors and Li-Batteries as Rechargeable Energy Storage for Implantable Biomedical Devices: A Critical Comparison
 Barboza, Juliano *Univ. of Concepcion*; Aqueveque, Pablo* *Univ. of Concepcion*; Saavedra, Francisco *Univ. of Concepcion*
- 16:00-17:30 FrFPoT3.36
Label-Free Strategy for Single-Cell Detection of in Vitro Activated T Lymphocytes
 Rollo, Enrica* *Swiss Federal Institute of Technology Lausanne*; Tenaglia, Enrico *EPFL*; De Micheli, Andrea *Joseph EPFL*; Guiducci, Carlotta *Swiss Federal Institute of Technology Lausanne*; Harari, Alexandre *CHUV*; Genolet, Raphael *UNIL*

FrFPoT4: 16:00-17:30	Gold Room	16:00-17:30	FrFPoT4.14
6.LB2 Neural and Rehabilitation Engineering (Poster Session)		Neural Interfacing Applications of Liquid Crystalline Graphene Oxide Fibers	
16:00-17:30	FrFPoT4.1	Apollo, Nicholas V.* <i>Univ. of Melbourne</i> ; Maturana, Matias <i>Univ. of Melbourne</i> ; Tong, Wei <i>Univ. of Melbourne</i> ; Nayagam, David A.X. <i>The Bionics Institute</i> ; Shivdasani, Mohit N. <i>Bionics Institute</i> ; Foroughi, Javad <i>Intelligent Polymer Research Institute, ARC Centre of Excellence</i> ; Wallace, Gordon <i>Univ. of Wollongong</i> ; Praver, Steven <i>Univ. of Melbourne</i> ; Ibbotson, Michael R <i>Australian College of Optometry</i> ; Garrett, David J. <i>Univ. of Melbourne</i>	
16:00-17:30	FrFPoT4.2	Rational Decision Making May Be Influenced by the Preceding Mental Task: An EEG Source Imaging Study	
Development of Electric Wheelchair Controlled by Body Motions Estimated from Seat Pressure Distribution Hori, Junichi* <i>Niigata Univ.</i>		Kim, Jeong-Youn <i>Hanyang Univ.</i> ; Kim, Kun-Il <i>Hanyang Univ.</i> ; Shim, Miseon <i>Hanyang Univ.</i> ; Im, Chang-Hwan* <i>Hanyang Univ.</i>	
The Affect of TDCS on Humor Recall: A Randomized, Double Blind Placebo Controlled EEG Study Ramaraju, Sriharsha* <i>Univ. of South Wales</i> ; Izzidien, Ahmed <i>Univ. of Southwales</i> ; Roula, Mohammed Ali <i>Univ. of South Wales</i>		16:00-17:30	FrFPoT4.15
16:00-17:30	FrFPoT4.3	Towards BCI-Controlled Augmented Reality: Integration of Computer Vision with BCI for Hands-Free Communication and Control	
Identification of Levels of Interest in a Political Speech using EEG Patterns Ramaraju, Sriharsha* <i>Univ. of South Wales</i> ; Izzidien, Ahmed <i>Univ. of Southwales</i> ; Emina, Charles <i>Univ. of South Wales</i> ; Roula, Mohammed Ali <i>Univ. of South Wales</i>		Kim, Yong-Wook <i>Hanyang Univ.</i> ; Lim, Jeong-Hwan <i>Hanyang Univ.</i> ; Han, Chang-Hee <i>Hanyang Univ.</i> ; Im, Chang-Hwan* <i>Hanyang Univ.</i>	
16:00-17:30	FrFPoT4.4	16:00-17:30	FrFPoT4.16
AI Mapping for Artificial Ethological Communication System Bianco, Maria Giovanna* <i>Univ. Magna Graecia of Catanzaro</i> ; De Villers Sidani, Etienne <i>Mc Gill Univ.</i> ; Pullano, Salvatore A. <i>Univ. of Magna Graecia, School of Biomedical Engineering</i> ; Fiorillo, Antonino S. <i>Univ. of Magna Graecia, School of Biomedical Engineering, Depar</i>		Towards BCI-Controlled Augmented Reality: Integration of Computer Vision with BCI for Hands-Free Communication and Control Kim, Yong-Wook <i>Hanyang Univ.</i> ; Lim, Jeong-Hwan <i>Hanyang Univ.</i> ; Han, Chang-Hee <i>Hanyang Univ.</i> ; Im, Chang-Hwan* <i>Hanyang Univ.</i>	
16:00-17:30	FrFPoT4.7	16:00-17:30	FrFPoT4.17
Neural Integrity Changes during Rtpa Thrombolysis in a Photothrombotic Hyperacute Ischemia Rat Model Bandla, Aishwarya <i>National Univ. of Singapore</i> ; Liu, Yu-Hang <i>National Univ. of Singapore</i> ; Thakor, Nitish <i>Johns Hopkins Univ.</i> ; Liao, Lun-De* <i>SINAPSE</i>		Inverse-Dynamics based Estimation of the Muscular Torque of Human for a Gait Rehabilitation Robot Hwang, B. <i>Sogang Univ.</i> ; Jeon, D.* <i>Sogang Univ., Seoul</i>	
16:00-17:30	FrFPoT4.8	16:00-17:30	FrFPoT4.18
Transcutaneous Spinal Cord Stimulation: Modeling the Electric Field Distribution using the Finite Element Method Fernandes, Sofia Rita* <i>Univ. of Lisbon</i> ; Wenger, Cornelia <i>Faculdade de Ciências, Univ. de Lisboa</i> ; Salvador, Ricardo <i>Institute of Biophysics and Biomedical Engineering (IBEB), Univ.</i> ; de Carvalho, Mamede <i>IMM Molecular Medicine Institute, Faculty of Medicine, Univ.</i> ; Miranda, Pedro Cavaleiro <i>Faculdade de Ciências, Univ. de Lisboa</i>		A Comparison of EEG Power Spectral and Wavelet Features in Concussed Cohorts using Support Vector Machine Garg, Saurabh <i>Univ. of British Columbia</i> ; Yeung, Arnold* <i>Univ. of British Columbia</i> ; Garudadri, Harinath <i>Univ. of California, San Diego</i> ; Virji-Babul, Naznin <i>Univ. of British Columbia</i>	
16:00-17:30	FrFPoT4.9	16:00-17:30	FrFPoT4.19
Information Transmission in an Auditory Nerve Fiber Model Stimulated by Low-Rate Pulsatile Waveforms Mino, Hiroyuki* <i>Kanto Gakuin Univ.</i>		Novel Fabrication Method of Large Area and Freestanding Micro PDMS Membrane and Its Application to 3D Neuronal Circuit Array Tahk, Dongha <i>Seoul National Univ.</i> ; Oh, Soojung <i>Seoul National Univ.</i> ; Ryu, Hyunryul <i>Institute of Advanced Machinery and Design</i> ; Sangcheol, Na <i>Multiscale Mechanical Design, School of Mechanical and Aerospace</i> ; Jeon, Noo Li* <i>Seoul National Univ.</i>	
16:00-17:30	FrFPoT4.10	16:00-17:30	FrFPoT4.20
Bioactivity Measurement using Conductive Silk Electrode Torimitsu, Keiichi* <i>Tohoku Univ.</i>		The Effect of a Pulsatile Electrostatic Fields on Pressure Ulcer Healing in Patients with Spinal Cord Injury Wang, Xiaoyun* <i>Guangdong Provincial Work Injury Rehabilitation Center</i> ; Guo, Xia <i>The Hong Kong Polytechnique Univ.</i> ; Tang, Dan <i>Guangdong Provincial Work Injury Rehabilitation Center</i>	
16:00-17:30	FrFPoT4.12	16:00-17:30	FrFPoT4.21
Development of Automatic Database Registration and Similar-Case Retrieval for Diffuse Lung Diseases by Texture Analysis of Whole-Lung CT Volume Kozuka, Kazuki* <i>Panasonic Corp.</i> ; Takata, Kazutoyo <i>Panasonic Corp.</i> ; Kondo, Kenji <i>Panasonic Corp.</i> ; Karasawa, Kyohei <i>Yamaguchi Univ.</i> ; Hirano, Yasushi <i>Yamaguchi Univ.</i> ; Kido, Shoji <i>Graduate School of Medicine, Yamaguchi Univ.</i>		Body-Machine Interfaces as Tool for Rehabilitative Intervention after Spinal Cord Injury Pierella, Camilla* <i>Univ. of Genoa, Genoa, Italy</i> ; De Luca, Alice <i>Dept. of Informatics, Bioengineering, Robotics and System E</i> ; Tasso, Elisa <i>Univ. of Genoa</i> ; Cervetto, Federica <i>Univ. of Genoa</i> ; Gamba, Simona <i>Spinal Cord Unit, Santa Corona Hospital, ASL2 Savonese, Pietra L</i> ; Losio, Luca <i>Spinal Cord Unit, Santa Corona Hospital, ASL2 Savonese, Pietra L</i> ; Venegoni, Anna <i>Spinal Cord Unit, Santa Corona Hospital, ASL2 Savonese, Pietra L</i> ; Mandraccia, Sergio <i>Spinal Cord Unit, Santa Corona Hospital, ASL2 Savonese, Pietra L</i> ; Muller, Ingeborg <i>Spinal Cord Unit, Santa Corona Hospital, ASL2 Savonese, Pietra L</i> ; Massone, Antonino <i>Spinal Cord Unit, Santa Corona Hospital, ASL2 Savonese, Pietra L</i> ; Mussa-Ivaldi, Ferdinando <i>Northwestern Univ.</i> ; Casadio, Maura <i>Univ. of Genova</i>	
16:00-17:30	FrFPoT4.13	16:00-17:30	FrFPoT4.22
Prediction of Peak VO2 from Walking Energy Cost Index for the Elderly Nakada, Toru* <i>Panasonic Corp.</i> ; Sato, Yoshikuni <i>Panasonic Corp.</i> ; Kozuka, Kazuki <i>Panasonic Corp.</i> ; Kiyono, Masaki <i>Panasonic Corp.</i> ; Nonoyama, Tadayoshi <i>Univ. of Fukui Hospital</i> ; Kubota, Masafumi <i>Univ. of Fukui Hospital</i> ; Koie, Yusuke <i>Univ. of Fukui Hospital</i> ; Yasutake, Masaki <i>Univ. of Fukui Hospital</i> ; Yamamura, Osamu <i>Second Dept. of Internal Medicine Univ. of Fukui</i>		Predictive Muscle Co-Contraction and Movement Variability Franklin, Sae <i>Univ. of Cambridge</i> ; Franklin, David W.* <i>Univ. of Cambridge</i>	

- 16:00-17:30 FrFPoT4.23
Does a Multimodal Biofeedback Training Improve Motor Recovery in Stroke Patients? Preliminary Results of a Randomized Control Trial
 Ferrante, S. *Politecnico di Milano*; Ambrosini, E.* *Politecnico di Milano*; Pedrocchi, Alessandra *Politecnico di Milano*; Ferrigno, Giancarlo *Politecnico di Milano*; Nava, Claudia *Fondazione S. Maugeri, Istitute of Lissone*; Longoni, Valentina *Fondazione S. Maugeri, Istitute of Lissone*; Monticone, Marco *Fondazione Salvatore Maugeri*
- 16:00-17:30 FrFPoT4.24
Visual Delay Adaptation Reduces Intention Tremor in Multiple Sclerosis: A Case Series
 Heenan, Megan *Marquette Univ.*; Scheidt, Robert A.* *Marquette Univ.*; Beardsley, Scott *Marquette Univ.*
- 16:00-17:30 FrFPoT4.25
Improvement of Step Count Accuracy using Gyroscope Output for Ultra-Low Speed Walking
 Sekine, Masaki* *Osaka Electro-Communication Univ.*; Tanaka, Noriko *Osaka Electro-Communication Univ.*; Tamura, Toshiyo *Osaka Electro-Communication Univ.*; Yoshida, Masaki *Osaka Electro-Communication Univ.*
- 16:00-17:30 FrFPoT4.26
Intrafascicular Carbon Nanotube Wire Electrodes for Chronic Peripheral Nerve Recording
 McCallum, Grant* *Case Western Reserve Univ.*; Sui, Xiaohong *Shanghai Jiao Tong Univ.*; Qiu, Chen *Case Western Reserve Univ.*; Durand, Dominique *Case Western Reserve Univ.*
- 16:00-17:30 FrFPoT4.27
Relationships between Subjective Auditory Impression and Brain Cortical Activities for Time-Varying HVAC Sound
 Yano, Hajime* *Kobe Univ.*; Hotehama, Takuya *National Institute of Advanced Industrial Science and Technology*; Takiguchi, Tetsuya *Kobe Univ.*; Ariki, Yasuo *Kobe Univ.*; Kamiya, Masaru *Denso Corporation*; Nakagawa, Seiji *National Institute of Advanced Industrial Science and Technology*
- 16:00-17:30 FrFPoT4.28
Effectiveness of ICA in Retrieving EEG Target Signals during Cyclical Head Movements using a Phantom Head
 Oliveira, Anderson* *Univ. of Michigan*; Schlink, Bryan *Univ. of Michigan*; König, Peter *Univ. Osnabrück*; Hairston, W. David *US Army Research Laboratory*; Ferris, Daniel *Univ. of Michigan*
- 16:00-17:30 FrFPoT4.29
Development of Multifunctional Knee Joint Unit with Passive Mechanism for Transfemoral Prosthesis: Integration of Level Walk and Stair Ascent Mechanisms
 Inoue, Koh* *Kagawa Univ.*; Tanaka, Tomohiro *Kagawa Univ.*; Wada, Takahiro *Ritsumeikan Univ.*; Tachiwana, Shin'ichi *Kagawa Univ.*
- 16:00-17:30 FrFPoT4.30
An Embedded System for Simultaneous and Proportional Myoelectric Control of Upper Limb Prostheses
 Hahne, Janne* *Univ. Medizin Goettingen*; Müller, Klaus-Robert *Berlin Institute of Technology*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medic*
- 16:00-17:30 FrFPoT4.31
Muscle Activity Detection for Basic Movements in Patients with Full Face Transplantation
 Topcu, Cagdas* *Faculty of Engineering, Dept. of Electrical and Electronics*; Akgul, Arzu *Faculty of Engineering, Dept. of Electrical and Electronics*; Bedeloglu, Merve *Faculty of Engineering, Dept. of Electrical and Electronics*; Doger, Ela Naz *Faculty of Engineering, Dept. of Electrical and Electronics*; Sever, Refik *Faculty of Engineering, Dept. of Electrical and Electronics*; Ozkan, Ozlenen *Faculty of Medicine Dept. of Plastic and Reconstructive Sur.*; Ozkan, Omer *Faculty of Medicine Dept. of Plastic and Reconstructive Sur.*; Uysal, Hilmi *Faculty of Medicine, Dept. of Neurology, Akdeniz Univ.*; Polat, Ovunc *Faculty of Engineering, Dept. of Electrical and Electronics*; Colak, Omer Halil *Faculty of Engineering, Dept. of Electrical and Electronics*
- 16:00-17:30 FrFPoT4.32
Acute Trial of Closed Loop Deep Brain Stimulation in Tourette Syndrome
 Shute, Jonathan *Univ. of Florida*; Opri, Enrico *Univ. of Florida*; Molina, Rene *Univ. of Florida*; Foote, Kelly *Univ. of Florida*; Okun, Michael *Univ. of Florida*; Gunduz, Aysegul* *Univ. of Florida*
- 16:00-17:30 FrFPoT4.33
Towards a Responsive Deep Brain Stimulation for the Treatment of Essential Tremor
 Opri, Enrico *Univ. of Florida*; Shute, Jonathan *Univ. of Florida*; Molina, Rene *Univ. of Florida*; Foote, Kelly *Univ. of Florida*; Okun, Michael *Univ. of Florida*; Gunduz, Aysegul* *Univ. of Florida*
- 16:00-17:30 FrFPoT4.35
Heuristic BCI using Learning-Based Fuzzy Label Template
 Oda, T. *Kwansei Gakuin Univ.*; Kudoh, S.* *Kwansei Gakuin Univ.*
- 16:00-17:30 FrFPoT4.36
Study on Differences of Early-Mid ERP Induced by Emotional Face and Scene Images
 Wang, Xin *Chinese Academy of Medical Sciences & Peking Union Medical College*; Jin, Jingna *Institute of Biomedical Engineering, Chinese Academy of Medical*; Li, Song *Chinese Academy of Medical Sciences, Peking Union Medical College*; Liu, Zhipeng *Chinese Academy of Medical Sciences, Peking Union Medical College*; Yin, Tao* *Chinese Academy of Medical Sciences, Peking Union Medical College*
- 16:00-17:30 FrFPoT4.37
Binaural Interaction in Unilateral Cochlear Implant Users: Neural Correlates in Free-Field Single Trial Responses
 Schebsdat, Erik* *Systems Neuroscience and NeuroTechnology Unit, NeuroCenter, Facu; Corona-Strauss, Farah I. Saarland Univ. Hospital*; Hessel, Horst *Cochlear Deutschland GmbH & Co. KG, Hannover, Germany*; Seidler, Harald *MediClin Bosenberg Kliniken*; Bellaghech, Ahmed *MediClin Bosenberg Kliniken*; Rusczyk, Lilian *MediClin Bosenberg Klinik, St. Wendel, Germany*; Müller, Oliver *MediClin Bosenberg Klinik, St. Wendel, Germany*; Strauss, Daniel J. *Saarland Univ., Medical Faculty*
- 16:00-17:30 FrFPoT4.38
Neuroplasticity Induction by a Fast Brain Switch Triggered Sensory Feedback: A Comparison of Electrical and Mechanical Stimulation
 Xu, Ren* *Univ. Medical Center Göttingen, Georg-August Univ., Göttingen*; Jiang, Ning *Univ. Medical Center Goettingen*; Mrachacz-Kersting, Natalie *Aalborg Univ.*; Dremstrup, Kim *Aalborg Univ.*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medic*
- 16:00-17:30 FrFPoT4.39
Decoding of the Endogenous Somatic Attention by Utilizing Brain Signals Induced from Tactile Selective Sensation
 Yao, Lin* *Univ. Medical Center Goettingen, Georg-August Univ.*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medic*
- 16:00-17:30 FrFPoT4.40
Decoding of Knee Angles through EEG using Active Electrodes
 Ianez, Eduardo *Univ. Miguel Hernandez de Elche*; Ubeda, Andres *Univ. Miguel Hernandez de Elche*; Costa, Álvaro *Miguel Hernández Univ. of Elche*; Hortal, Enrique *Univ. Miguel Hernandez de Elche*; Azorin, Jose M.* *Univ. Miguel Hernandez de Elche*
- 16:00-17:30 FrFPoT4.41
Effects of Fatigue Induced by Vibration Exercise on the H-Reflex
 Sammali, Federica* *Eindhoven Univ. of Tech.*; Xu, Lin *Eindhoven Univ. of Tech.*; Rabotti, Chiara *Eindhoven Univ. of Tech.*; van Dijk, Johannes *Dept. of Neurology/Clin. Neurophysiology, UMC St Radboud Nijmegen*; Zwarts, Machiel *Kempenhaghe*; Del Prete, Zaccaria *Univ. of Rome "La Sapienza"*; Mischi, Massimo *Eindhoven Univ. of Tech.*
- 16:00-17:30 FrFPoT4.42
Simple Compensation Circuits Realisation for Interference Reduction in the Entire Band of Neural Tripolar Recordings
 Zehra, Syeda Sabeeka* *Univ. College London*; Demosthenous, Andreas *Univ. College London*

- 16:00-17:30 FrFPoT4.43
Effectiveness of Lead Position with Microelectrode Recording in Determining Subthalamic Nuclei-Based Deep Brain Stimulation
 Rama Raju, Venkateshwarla* *GITAM for Women Engg College Proddatur (Jawaharlal Nehru Technol*
- 16:00-17:30 FrFPoT4.44
Anomalous EMG-Force Relations during Stretch Reflex Responses in Stroke Survivors
 Suresh, Nina* *Rehabilitation Institute of Chicago*; Chardon, Matthieu *Rehabilitation Institute of Chicago*; Rymer, William Zev *Northwest. & Rehab Inst of Chicago*
- 16:00-17:30 FrFPoT4.45
Stretch-Induced Endothelial Mechanotransduction through Transitions in Cell Membrane Lipid Phases
 Yamamoto, Kimiko* *The Univ. of Tokyo*; Ando, Joji *Dokkyo Medical Univ.*
- FrFPoT5: 16:00-17:30 Gold Room
9.LB1 Therapeutic and Diagnostic Systems, Devices and Technologies; Clinical Engineering (Poster Session)
- 16:00-17:30 FrFPoT5.1
A Novel DBS Lead Compatible with Intraoperative 3.0T MRI
 Mo, Xiaolong* *Tsinghua Univ.*; Jiang, Changqing *Tsinghua Univ.*; Ding, Jianqi *Tsinghua Univ.*; Zhang, Feng *Tsinghua Univ.*; Li, Luming *Tsinghua Univ.*
- 16:00-17:30 FrFPoT5.2
An Integrated System to Improve Robustness of Non-Invasive Blood Pressure Estimation with Motion Artifacts
 Abderahman, H. *Univ. of Ottawa*; Dajani, H.* *Univ. of Ottawa*; Bolic, Miodrag *Univ. of Ottawa*; Groza, Voicu *Univ. of Ottawa*
- 16:00-17:30 FrFPoT5.3
Hypothermia for Preventing Chemotherapy-Induced Peripheral Neuropathy – A Safety and Tolerability Study
 Bandla, Aishwarya *National Univ. of Singapore*; Sundar, Raghav *National Univ. Health System*; Tan, Stacey, Sze Hui *National Univ. of Singapore*; Thakor, Nitish *Johns Hopkins Univ.*; Wilder-Smith, Einar P V *National Univ. of Singapore, National Univ. Hospital*; Liao, Lun-De* *SINAPSE*
- 16:00-17:30 FrFPoT5.4
Study on the Preparation of a Method to Evaluate Safety Performance of Medical Laser Blood Flowmeter
 Kim, San* *National Institute of Food and Drug Safety Evaluation, Ministry*; Hwang, Yoonsu *National Institute of Food and Drug Safety Evaluation, Ministry*; Park, Sang-Geon *National Institute of Food and Drug Safety Evaluation, Ministry*; Han, Jae-phil *Center of Medical Device Evaluation, Korea Testing Laboratory*; Kim, Mi Seon *National Institute of Food and Drug Safety Evaluation, Ministry*; Lee, Chang-hyung *National Institute of Food and Drug Safety Evaluation, Ministry*; Kim, Hyeogju *National Institute of Food and Drug Safety Evaluation, Ministry*; Seo, Kyungwon *National Institute of Food and Drug Safety Evaluation, Ministry*
- 16:00-17:30 FrFPoT5.5
Simulation and Validation of an Irrigated Cardiac Ablation Catheter
 Rossmann, Christian *Medical Univ. of South Carolina*; Panescu, Dorin *Advanced Cardiac Therapeutics*; Haemmerich, Dieter* *Medical Univ. of South Carolina*
- 16:00-17:30 FrFPoT5.6
Modelling and Controlling Blood Flow by Active Cooling of the Fingers to Prevent Nail Toxicity
 Youssef, Ali *KU Leuven*; D'Haene, Maarten *KU Leuven*; De Bruyne, Guido *Univ. of Antwerp*; Aerts, Jean-Marie* *KU Leuven*
- 16:00-17:30 FrFPoT5.7
Respiratory Motion Prediction in 3-D using an Extended Kalman Filter and Gaussian Process Regression Network
 Bukhari, Waqas *Kyungpook National Univ.*; Hong, Sun-Mog* *Kyungpook National Univ.*
- 16:00-17:30 FrFPoT5.8
Performance Evaluation of the Extra Corporeal Enteral Prosthesis (EPEC) vs. a By-Pass on a Test Bench
 Nzamushe, Jean-Robert *CHRU Lille*; Sozanski, Jean Pierre* *INSERM*; De Jonckheere, Julien *CHRU de Lille*; Jeanne, Mathieu *CHRU de Lille*; Logier, Regis *CHRU de Lille*
- 16:00-17:30 FrFPoT5.9
Motor Complication based on the Amount of Movement after Tourniquet Avascularization
 Maeda, Hiroyuki* *Juntendo Univ.*; Iwase, Hideaki *Juntendo Univ.*; Kaneko, Kazuo *Juntendo Univ. Tokyo*; Maeda, Mutsuhiro *Maeda Hospital*; Kakinuma, Yuki *Tokyo denki Univ.*; Takei, Yusuke *Tokyo Denki Univ.*; Mitsui, Kazuyuki *Tokyo Denki Univ.*
- 16:00-17:30 FrFPoT5.10
Intense Therapy Ultrasound (ITU) for the Treatment of Chronic Plantar Fasciitis: Preliminary Results of Clinical Study
 Slayton, Michael* *Guided Therapy Systems, LLC*; Amodei, Richard *Guided Therapy Systems, LLC*; McNelly, Ashley *Univ. of Arizona, School of Medicine*; Latt, Daniel *Univ. of Arizona, School of Medicine*
- 16:00-17:30 FrFPoT5.11
Ballistocardiogram as a Proximal Timing Reference for Pulse Transit Time: Potential for Cuffless Blood Pressure Monitoring
 Kim, Chang-Sei *Univ. of Maryland*; Carek, Andrew *Georgia Institute of Technology*; Mukkamala, Ramakrishna *Michigan State Univ.*; Inan, Omer* *Georgia Institute of Technology*; Hahn, Jin-Oh *Univ. of Maryland*
- 16:00-17:30 FrFPoT5.12
Simulator to Evaluate a Regional Cooling Patch before Needle Insertion for Hemodialysis
 Naemura, Kiyoshi* *Tokyo Univ. of Technology*
- 16:00-17:30 FrFPoT5.13
Fabrication of Oriented Hydroxyapatite Film by RF Magnetron Sputtering
 Hirata, Keishiro* *Doshisha Univ.*; Takayanagi, Shinji *Doshisha Univ.*; Matsukawa, Mami *Doshisha Univ.*
- 16:00-17:30 FrFPoT5.14
Heart Rate Variability and Machine Learning Model in Predicting Lifesaving Interventions in Critically Ill Patients
 Yuda, Soh *National Univ. of Singapore*; Liu, Nan* *Singapore General Hospital*; Jayne, Chiang *Singapore General Hospital*; Koh, Zhi Xiong *Singapore General Hospital*; Stephanie, Fook-Chong *Singapore General Hospital*; Wong, Ting Hway *Singapore General Hospital*; Singaram, Kanageswari *Singapore General Hospital*; Ho, Andrew Fu Wah *Singapore General Hospital*; Ong, Marcus Eng Hock *Singapore General Hospital*
- 16:00-17:30 FrFPoT5.15
Regional Muscle Displacement during Isometric Contraction using B-Mode Ultrasound
 Armentano, Margaret* *Univ. of Glasgow*; Loram, Ian David *Manchester Metropolitan Univ.*; Gollee, Henrik *Univ. of Glasgow*
- 16:00-17:30 FrFPoT5.16
Development of a Sonic Vibration Massage System to Prevent Low Back Pain Caused by Driving Postures
 Youn, Jongin* *Catholic Univ. of Daegu*; Jang, IkJAE *Catholic Univ. of Daegu, Dept. of Biomedical Engineeri*; Han, Hong Ju *Catholic Univ. of Daegu, Dept. of Biomedical Engineeri*; Kim, Nam Jeong *Catholic Univ. of Daegu, Dept. of Biomedical Engineeri*; Kim, Jihyun *Ilji Tech, Co., Ltd, Precedence development team*; Shin, Chang Yeol *Ilji Tech. Co., Ltd., Precedence development team*
- 16:00-17:30 FrFPoT5.17
Deriving a New Risk Score to Predict Adverse Cardiac Events in Chest Pain Patients Presenting to the Emergency Department
 Liu, Nan* *Singapore General Hospital*; Heldeweg, Micah *Univ. of Groningen*; Lye, Weng Kit *Duke-NUS Graduate Medical School*; Koh, Zhi Xiong *Singapore General Hospital*; Ong, Marcus Eng Hock *Singapore General Hospital*

- 16:00-17:30 FrFPoT5.18
Smartphone Measurement of Peripheral Blood Flow
 McDuff, Daniel Jonathan* *Massachusetts Institute of Tech.*; Smith, Ann DeBord *Center for Surgery and Public Health, Brigham & Women's Hospital*; Vosburgh, Kirby *Dept. of Radiology, Brigham & Women's Hospital*; Nguyen, Louis *Division of Vascular and Endovascular Surgery, Brigham & Women's*
- 16:00-17:30 FrFPoT5.19
Intercomparison between MRI and Stereovision/PIV Measurements for Diagnosis of Aorta Pathologies
 Wang, Yufei *Laboratory of Electronic, Data Processing, Image, Univ. of B*; Joannic, David *Laboratory of Electronic, Data Processing, Image, Univ. of B*; Lalande, Alain *Univ. de Bourgogne*; Juillion, Patrick *Laboratory of Electronic, Data Processing, Image, Univ. of B*; Fontaine, Jean Francois* *Laboratory of Electronic, Data Processing, Image, Univ. of B*
- 16:00-17:30 FrFPoT5.20
Testing IQM: A System for Real-Time Monitoring of Complex Radiotherapy Treatments
 Talamonti, Cinzia *Univ. of Florence- Dept. of Experimental and Clinical*; Marrazzo, Livia *AOU Careggi- Florence*; Calusi, Silva *Univ. of Florence - Dept. of Experimental and Clinical*; Arilli, Chiara *AOU Careggi- Florence*; Casati, Marta *AOU Careggi- Florence*; Compagnucci, Antonella *AOU Careggi*; Bonomo, Pierluigi *AOU Careggi*; Livi, Lorenzo *Univ. of Florence - Dept. of Experimental and Clinical*; Pallotta, Stefania* *Univ. of Florence- Dept. of Experimental and Clinical*
- 16:00-17:30 FrFPoT5.21
Quantitative Wall Plank-and-Roll for Lumbar Stability Analysis
 Lee, Joonnyong *Seoul National Univ.*; Yoon, Chiyul *Seoul National Univ.*; Chung, Sun* *Seoul National Univ. and Hospital*; Kim, Hee Chan *Seoul National Univ.*
- 16:00-17:30 FrFPoT5.22
Development of Wearable System for Diagnosis and Treatment of Benign Paroxysmal Positional Vertigo
 Kwon, Chihon *Seoul National Univ.*; Ku, Yunseo *Seoul National Univ.*; Samsung *Advanced Institute of Technology*; Ahn, Joong Woo *Seoul National Univ.*; Suh, Myung-Whan *Seoul National Univ. Hospital*; Kim, Hee Chan* *Seoul National Univ.*
- 16:00-17:30 FrFPoT5.23
Fracture Risk Estimation on Trabecular Bone DXA Images using Directional Fractal Dimension
 Yoo, Byeongwook *Interdisciplinary Program of Bioengineering, Seoul National Univ.*; Park, Sungwoo *Interdisciplinary Program of Bioengineering, College of Engineer*; Hong, Inji *Interdisciplinary Program of Bioengineering, College of Engineer*; Kim, Jung Hee *Seoul National Univ. College of Medicine, Seoul, Korea*; Hong, A Ram *Seoul National Univ. College of Medicine, Seoul, Korea*; Shin, Chan Soo *Seoul National Univ. College of Medicine, Seoul, Korea*; Kim, Sungwan* *Seoul National Univ.*; Kim, Hee Chan *Seoul National Univ.*
- 16:00-17:30 FrFPoT5.24
Suitability of Forehead EEG Electrode Set for Scoring of Sleep Stages
 Myllymaa, Sami Aulis* *Univ. of Eastern Finland*; Muraja-Murro, Anu *Kuopio Univ. Hospital*; Westernen-Punnonen, Susanna *Kuopio Univ. Hospital*; Hukkanen, Taina *Kuopio Univ. Hospital*; Kupari, Salla *Kuopio Univ. Hospital*; Mervaala, Esa *Kuopio Univ. Hospital, Univ. of Eastern Finland*; Töyräs, Juha *Kuopio Univ. Hospital, Univ. of Eastern Finland*; Sipilä, Kirsi *Univ. of Eastern Finland*; Lappalainen, Reijo *Univ. of Kuopio*; Myllymaa, Katja Maria *Kuopio Univ. Hospital*
- 16:00-17:30 FrFPoT5.25
Supporting Device for Cardiopulmonary Resuscitation and Method for the Assistance of an Operator during Pulmonary Resuscitation
 Gardenghi, Roberto* *Univ. of Applied Sciences and Arts of Southern Switzerland*; Sofia, Andrea *Univ. of Applied Sciences and Arts of Southern Switzerland*; Moroso, Danilo *Med-Group SA*; Musiari, Michele *Med-Group SA*; Stefanini, Igor *Univ. of Applied Sciences and Arts of Southern Switzerland*
- 16:00-17:30 FrFPoT5.26
Development of a Needle Injector using Pneumatic Energy
 Kwon, Min Kyung* *Amorepacific Co., R&D Center*; Jang, Jihye *Amorepacific Co., R&D Center*; Hong, Hyuckki *Korea Electronics Technology Institute*; Lee, JiHae *Amorepacific Co., R&D Center*; Choi, Jin Kyu *Aestura Corporation*; Bae, Joonho *Amorepacific Co., R&D Center*
- 16:00-17:30 FrFPoT5.27
Optical Measurement of Blood Flow in the Extremely Low Birthweight Neonate
 Busch, David* *Univ. of Pennsylvania*; Kovatis, Kelley Z. *Children's Hospital of Philadelphia*; Winters, Madeline E. *Children's Hospital of Philadelphia*; Newland, John J. *Children's Hospital of Philadelphia*; Ko, Tiffany *Univ. of Pennsylvania*; Filibotte, John J. *Children's Hospital of Philadelphia*; Kirplani, Haresh *Children's Hospital of Philadelphia*; Licht, Daniel J. *Children's Hospital of Philadelphia*
- 16:00-17:30 FrFPoT5.28
Online Detection of Thrombosis in Blood by Capacitance Measurement
 Sapkota, Achyut* *National Institute of Technology, Kisarazu College*; Dung Nguyen, Huu *Chiba Univ.*; Maruyama, Osamu *National Institute of Advanced Industrial Science and Technology*; Takei, Masahiro *Chiba Univ.*
- 16:00-17:30 FrFPoT5.29
Epileptic Seizure Prediction based on Multivariate Statistical Process Control of Heart Rate Variability
 Miyajima, Miho *Tokyo Medical and Dental Univ.*; Fujiwara, Koichi* *Kyoto Univ.*; Abe, Erika *Kyoto Univ.*; Suzuki, Yoko *Tokyo Medical and Dental Univ.*; Sawada, Yuriko *Graduate School of Health Care Sciences, Tokyo Medical and Dental Univ.*; Yamakawa, Toshitaka *Kumamoto Univ.*; Kano, Manabu *Kyoto Univ.*; Maehara, Taketoshi *Tokyo Medical and Dental Univ.*; Ohta, Katsuya *Tokyo Medical and Dental Univ.*; Sasai-Sakuma, Taeko *Tokyo Medical Univ.*; Sasano, Tetsuo *Tokyo Medical and Dental Univ.*; Matsuura, Masato *Tokyo Medical and Dental Univ.*; Matsushima, Eisuke *Tokyo Medical and Dental Univ.*
- 16:00-17:30 FrFPoT5.30
SonoCAIT: Sonication Capsule for Autonomous Imaging and Therapy, a Proof of Concept Device
 Verbeni, Antonella* *Scuola Superiore Sant'Anna, The BioRobotic Institute*; Stewart, Fraser *The Institute for Medical Science & Technology, Univ. of Du*; Qiu, Yongqiang *The Institute for Medical Science & Technology, Univ. of Du*; Cox, Benjamin *The Institute for Medical Science & Technology, Univ. of Du*; Vorstius, Jan *School of Engineering, Mathematics and Physics, Univ. of Du*; Cochran, Sandy *Univ. of Dundee*
- 16:00-17:30 FrFPoT5.31
Comparative Study of Influence of Two Rotary Blood Pumps on the Cardiovascular System
 Petukhov, Dmitry *National Research Univ. of Electronic Tech.*; Telyshev, Dmitry* *National Research Univ. of Electronic Tech.*
- 16:00-17:30 FrFPoT5.32
Raman Spectroscopy of RF Strengthened Thrombus
 Chon, Chi Hang* *The Hong Kong Univ. of Science and Tech.*; Qin, Zhen *The Hong Kong Univ. of Science and Tech.*; Lam, Alexander K.N. *Hong Kong Univ. of Science and Tech.*; Kwok, John C.K. *Hong Kong Univ. of Science and Tech.*; Yuen, Matthew M.F. *Hong Kong Univ. of Science and Tech.*; Lam, David C.C. *Hong Kong Univ. of Science and Tech.*
- 16:00-17:30 FrFPoT5.33
Real-Time Head-Up Display System for Image-Guided Surgery
 Yoon, Jang W* *Mayo Clinic Florida*; Han, Phillip *MedCyclops, LLC*; Si, Phong *MedCyclops, LLC*; Pirris, Stephen *Mayo Clinic Florida*; Chen, Robert *Georgia Institute of Technology*
- 16:00-17:30 FrFPoT5.34
Power and Frequency Limits for Safety Operation of Scanning Laser Ophthalmoscopes
 Pereira dos Santos, Fábio Rodrigo* *Univ. Federal de Pernambuco*; de Araujo, Renato Evangelista *Federal Univ. of Pernambuco*

- 16:00-17:30 FrFPoT5.35
Self-Training Influence in Peripheral Neuropathy Diagnosis
 D'Angelo, Maria Laura* *Dept. of Advanced Robotics, Istituto Italiano di Tecnologia*; Liberini, Paolo *Spedali Civili di Brescia*; Cannella, Ferdinando *Istituto Italiano di Tecnologia*
- 16:00-17:30 FrFPoT5.36
Photodynamic Therapy of Balloon-Injured Rat Carotid Arteries using Indocyanine Green
 Li, Wen-Tyng* *Chung-Yuan Christian Univ.*
- 16:00-17:30 FrFPoT5.37
Possibility Evaluation of Automatic Tracking for Medical Devices and Patients using UHF Band Passive RFID Tag in Hospital
 Hosaka, Ryosuke* *Shonan Institute of Technology*
- 16:00-17:30 FrFPoT5.38
Electromagnetic and Thermal Distribution in a Three-Layer Head Model, with a Metal Partial Helmet
 Carlone, Giuseppina *Politecnico di Bari*; Losito, Onofrio* *Politecnico di Bari*; Dimiccoli, Vincenzo *ITEL Telecomunicazioni*; Amoroso, Marisa *Dept. di Ingegneria Elettrica e dell'Informazione, Polite*; Bozzetti, Michele *Politecnico di Bari*
- 16:00-17:30 FrFPoT5.39
Design Concept of Patient-Adaptive Control Method for a Ventricular Assist Device
 Petukhov, Dmitry* *National Research Univ. of Electronic Tech.*; Telyshev, Dmitry *National Research Univ. of Electronic Tech.*
- 16:00-17:30 FrFPoT5.40
Thresholds of Inertial Cavitation Induced by High Frequency High Intensity Ultrasound: Feasibility of Medical Applications in Soft Tissue
 Slayton, Michael* *Guided Therapy Systems, LLC*; Jaeger, Paul *Arden Sound, Inc.*
- 16:00-17:30 FrFPoT5.41
Clinical Application of Needle Guiding Manipulator for MRI-Guided Transperineal Prostate Biopsy
 Junichi, Tokuda* *Brigham & Women's Hospital & Harvard Medical School*; Tuncali, Kemal *Brigham & Women's Hospital*; Shang, Weijian *Brigham & Women's Hospital & Harvard Medical School*; Patel, Niravkumar *Worcester Polytechnic Institute*; Li, Gang *Worcester Polytechnic Institute*; Heffter, Tamas *Acoustic MedSystems, Inc.*; Fischer, G. *Worcester Polytechnic Institute*; lordachita, I. *Johns Hopkins Univ.*; Burdette, E. *Acoustic MedSystems, Inc.*; Hata, N. *Brigham & Women's Hospital & Harvard Medical School*; Tempany, C.M. *Brigham & Women's Hospital, Harvard Medical School*
- 16:00-17:30 FrFPoT5.42
Development of a Pediatric Ventricular Assist Device: Design Considerations and Experimental Results
 Cestari, Idágene A.* *Heart Institute, Univ. of São Paulo*; Oyama, Helena T.T. *Heart Institute (InCor), Univ. of São Paulo*; Bacht, Simão *Heart Institute (InCor), Univ. of São Paulo*; Mazzetto, Marcelo *Heart Institute (InCor), Univ. of São Paulo*; Riso, Arlindo *Bioengineering Division InCor Heart Institute Univ. of Sao*; Jatene, Marcelo B. *Heart Institute (InCor) Univ. of São Paulo*; Cestari, Ismar Newton *Heart Institute (InCor) Univ. of São Paulo*
- FrFPoT6: 16:00-17:30 Gold Room
10.LB1 Healthcare Information Systems; Telemedicine
 (Poster Session)
- 16:00-17:30 FrFPoT6.1
Construct a Diet Recommendation System for Chronic Diseases based on Domain Ontology
 Chen, Rung-Ching* *Chaoyang Univ. of Technology*; Jiang, HuiQin *Xiamen Univ. of Technology*; Chen, Chin-Ling *Chaoyang Univ. of Technology*
- 16:00-17:30 FrFPoT6.2
Development of a Fully Non-Conscious Cardiopulmonary Monitoring System using Capacitive Coupling Electrodes Placed Outside the Bathtub Wall
 Motoi, Kosuke* *Shizuoka Institute of Science and Technology*; Yamakoshi, Yasuhiro *Hokkaido Univ.*; Yamakoshi, Takehiro *Fukuoka Institute of Technology*; Tanaka, Naoto *Kanazawa Univ.*; Yamakoshi, Ken-ichi *Kanazawa Univ.*
- 16:00-17:30 FrFPoT6.3
Smartphone-Based Urine Reagent Strip Reader for Detecting Nitrite
 Choi, Karam *Seoul Natl. Univ.*; Noh, Seungwoo *Interdisciplinary Program, Bioengineering, Graduate School, Seoul*; Chang, Ikwon *Seoul Natl. Univ. Hospital*; Kim, Do Kyun *Seoul Natl. Univ.*; Kwak, Young Ho *Seoul Natl. Univ.*; Kim, Hee Chan *Seoul Natl. Univ.*; Lee, Jung Chan* *Seoul Natl. Univ.*; Kim, Sungwan *Seoul Natl. Univ.*
- 16:00-17:30 FrFPoT6.4
A Preliminary Study on the Noninvasive Arterial Blood Pressure Estimation using a Single Peripheral PPG Device on the Wrist
 Park, Jonghyun *Seoul National Univ., Graduate School*; Yoo, Byeongwook *Interdisciplinary Program of Bioengineering, Seoul National Univ.*; Lee, Jung Chan *Seoul National Univ.*; Kim, Hee Chan* *Seoul National Univ.*
- 16:00-17:30 FrFPoT6.5
Objective Quantification of Parkinson's Disease Upper Limb Motor Timing Variability using Spirography
 Memedi, Mevludin *Dalarna Univ.*; Aghanavasi, Somayah* *Dalarna Univ.*; Westin, Jerker *Dalarna Univ.*
- 16:00-17:30 FrFPoT6.6
Preliminary Study for the Estimation of Cardiopulmonary Fitness in Non-Laboratory Setting
 Ahn, Joong Woo *Seoul National Univ.*; Yoon, Chiyul *Seoul National Univ.*; Lee, Joonnyong *Seoul National Univ.*; Kim, Hyun Jo *St. Paul's School*; Kim, Hee Chan *Seoul National Univ.*; Yoon, Hyung-Jin* *Seoul National Univ.*
- 16:00-17:30 FrFPoT6.7
Noncontact Sleep Measurement System
 Okada, Shima* *Faculty of Science and Engineering, Kinki Univ.*; Kitagawa, Masashi *Kinki Univ. Graduate school*
- 16:00-17:30 FrFPoT6.8
Design of Multi-Channel Home Sleep Behavior Monitoring System
 Lee, Po-Hsien *Chang Gung Univ.*; Lin, Wen-Yen* *Chang Gung Univ.*; Lee, Ming-Yih *Chang Gung Univ.*
- 16:00-17:30 FrFPoT6.9
Development and Preliminary Evaluation of a Mobile-Based Pulmonary Rehabilitation Program for Patients after Lung Resection
 Lim, Hyunmi *Keimyung Univ.*; Kwon, Nayoung *Keimyung Univ.*; Jun, SangEun *Keimyung Univ.*; Ku, Jeonghun* *Keimyung Univ.*
- 16:00-17:30 FrFPoT6.10
Mobile Web-Based Interface for Anesthesia Documentation
 Rockstroh, Max* *Univ. Leipzig*; Franke, Stefan *Univ. Leipzig*; Lippert, Sebastian *Innovation Center Computer Assisted Surgery, Univ. Leipzig*; Wiegand, Martin *Acqua Clinic Leipzig*; Neumuth, Thomas *Innovation Center Computer Assisted Surgery, Univ. of Leipzig*
- 16:00-17:30 FrFPoT6.11
BIO-APP – Default Graphical User Interface for Patient Monitoring
 Teixeira Lacerda, João Marcos* *IFRN*; Araújo, Bruno G. de *IFRN*; da Câmara Ribeiro Dantas, Marcel *IFRN*; Gabriela Bezerra da Silva, Gabriela *IFRN (Instituto Federal de Educação, Ciência e Tecnologia do Rio)*; Mitre, Daniel *IFRN*; Valentim, Ricardo *Alexsandro de Medeiros Federal Univ of Rio Grande do Norte*
- 16:00-17:30 FrFPoT6.12
Implementation and Evaluation of Electronic Patient Referral System with Data Exchange and Fingerprint Patient Identification
 Laohakangvalvit, Tipporn* *Shibaura Institute of Technology*; Tivatansakul, Somchanok *Shibaura Institute of Technology*; Achalakul, Tiranee *King Mongkut's Univ. of Technology Thonburi*; Ohkura, Michiko *Shibaura Institute of Technology*

- 16:00-17:30 FrFPoT6.13
Voice-Activity Recognition System for Home Care
 Chen, Oscar Tzyh-Chiang* *National Chung Cheng Univ.*; Tsai, Yi-Heng *National Chung Cheng Univ.*; Su, Che-Wei *National Chung Cheng Univ.*; Kuo, Po-Chen *National Chung Cheng Univ.*; Chen, Pin-Chih *National Chung Cheng Univ.*
- 16:00-17:30 FrFPoT6.14
Non-Contact Estimation of Nasal Airflow Velocity using Far Infrared Imaging
 Hanawa, Dai* *Nagoya City Univ.*; Murakami, Akiko *Nagoya City Univ.*; Oguchi, Kimio *Seikei Univ.*
- 16:00-17:30 FrFPoT6.15
Analysis of Center of Pressure during Symmetric Lifting
 Jeong, Hieyong* *Osaka Univ.*; Yamada, Kenji *Osaka Univ.*; Kido, Michiko *Osaka Univ.*; Nomura, Taishin *Osaka Univ.*; Ohno, Yuko *Osaka Univ. Graduate School of Medicine*
- 16:00-17:30 FrFPoT6.16
Applying HL7 FHIR to Diabetes Information Exchange
 Calamai, Renato *eHealthTech, srl*; Giarré, Laura* *Univ. di Palermo*; Gucciardo, Michele *DEIM, Univ. di Palermo*
- 16:00-17:30 FrFPoT6.17
A Home Healthcare Equipment for Early Detection of Lung Cancer
 Zou, Yingchang *Zhejiang Univ.*; Zhang, Xi *Zhejiang Univ.*; An, Chao *Zhejiang Univ.*; Wang, Ping* *Zhejiang Univ.*
- 16:00-17:30 FrFPoT6.18
Smartphone Dermatoscopy
 Das, Anshuman* *MIT*; Revelos, Alex *MIT*; Conover, Susan *MIT*; Raskar, Ramesh *MIT*
- 16:00-17:30 FrFPoT6.19
Tai-Chi Posture Recognition based on Joint Tracking for Physical Rehabilitation
 Wu, Chia-Hsiang* *I-Shou Univ.*; Wang, Lung-Shuo *I-Shou Univ.*; E-DA Hospital; Chien Hang, Ni *Chinese Medicine Dept., E-Da Hospital, Taiwan*; Tzu-Huai, Wu *Dept. of Biomedical Engineering, I-Shou Univ.*
- 16:00-17:30 FrFPoT6.20
Nasal Cavity Detection for Non-Contact Nasal Airflow Estimation using Far Infrared Imaging
 Hanawa, Dai* *Nagoya City Univ.*; Murakami, Akiko *Nagoya City Univ.*; Oguchi, Kimio *Seikei Univ.*
- 16:00-17:30 FrFPoT6.21
Development of Simple Measurement Kit for Therapeutic Drug Level Testing by Paper-Based Surfaced Enhanced Raman Spectroscopy
 Yamada, Kenji* *Osaka Univ.*; Yokoyama, Moe *Osaka Univ.*; Kido, Michiko *Osaka Univ.*; Jeong, Hieyong *Osaka Univ.*; Ohno, Yuko *Osaka Univ. Graduate School of Medicine*
- 16:00-17:30 FrFPoT6.22
Extracellular Channel Modeling based on Molecular Communication for Antibody-Mediated Drug Delivery Systems
 Lee, Jeongman* *Korea Advanced Institute of Science and Technology (KAIST)*; Cho, Dong-Ho *Korea Advanced Institute of Science and Technology (KAIST)*
- 16:00-17:30 FrFPoT6.23
Determination of the Absolute Position of a Dementia Patient based on an Optical Marker System
 Lissel, Alexandra* *Anhalt Univ. of Applied Sciences*; Ottenberg, Florian *Anhalt Univ. of Applied Sciences*; Bracio, Boris Romanus *Univ. of Applied Science Anhalt*
- 16:00-17:30 FrFPoT6.24
Wireless Optical Sensing System for the Detection of Infectious Diseases at the Point of Care
 Pilavaki, Evdokia* *Univ. College London*; Parolo, Claudio *Univ. College London*; McKendry, Rachel *Univ. College London*; Demosthenous, Andreas *Univ. College London*
- 16:00-17:30 FrFPoT6.25
Evaluation of Cervical Cancer Detection Tests using Feature Ranking Aggregation
 Bountris, Panagiotis *Biomedical Engineering Lab, School of Electrical and Comp*; Tsirmpas, Charalampos *School of Electrical and Computer Engineering, National Technical Haritou, Maria* Institute of Communication and Computer Systems, National Techni*; Pouliakis, Abraham *Dept. of Cytopathology, "ATTIKON" Univ. Hospital, Univ*; Karakitsos, Petros *Dept. of Cytopathology, "ATTIKON" Univ. Hospital, Univ*; Koutsouris, Dimitrios *Biomedical Engineering Lab, School of Electrical and Comp*
- 16:00-17:30 FrFPoT6.26
Delivering Individualized Food Messages by Location
 Moon, Jon* *MEI Research, Ltd*; Sieling, Jared *MEI Research*; Francelino-Tomita, Katia *MEI Research*; Wibowo, Budi *Univ. of Michigan*; Woolford, Susan *Univ. of Michigan*; Schenk, Tyler *MEI Research, Ltd*
- FrFPoT7: 16:00-17:30 Gold Room
11.LB1 Biomedical Engineering Education and Society (Poster Session)
- 16:00-17:30 FrFPoT7.2
A Biomedical Engineering Graduate Program at University of Cuenca, Ecuador
 La Cruz, Alexandra *Univ. de Cuenca*; Medina, Rubén *Univ. de Cuenca*; Morocho, Villie *Univ. de Cuenca*; Vanegas, Pablo *Facultad de Ingeniería, Univ. de Cuenca, Cuenca, Ecuador*; Wong C, Sara* *Univ. Simon Bolivar*
- 16:00-17:30 FrFPoT7.3
Global Engineering Teams: Enhanced Capstone Design Experience
 Ledet, Eric* *Rensselaer Polytechnic Institute*; Parkinson, Matthew *Pennsylvania State Univ.*; Eisenberg, Marco *Technische Univ. Berlin*; Scheffer, Cornie *Stellenbosch Univ.*
- 16:00-17:30 FrFPoT7.4
Med-RFID
 Ay, Ayse Nur* *Anhalt Univ. of Applied Sciences*; Nath, Rajon *Anhalt Univ. of Applied Sciences*; Ottenberg, Florian *Anhalt Univ. of Applied Sciences*; Lissel, Alexandra *Anhalt Univ. of Applied Sciences*; Bracio, Boris Romanus *Univ. of Applied Science Anhalt*
- FrFPoT8: 16:00-17:30 Gold Room
12.LB1 Technologies for Active Ageing and Wellbeing (Poster Session)
- 16:00-17:30 FrFPoT8.1
Effects of Icy Surfaces on Gait Parameters in Young and Older People
 Li, Yue* *Toronto Rehabilitation Institute - Univ. Health Network*; Ravindran, Sharon *Univ. of Toronto, Toronto Rehab, Univ. Health Network*; Katchky, Adam *Toronto Rehabilitation Institute - Univ. Health Network*; Dutta, Tilak *Toronto Rehab, Univ. Health Network*; Fernie, Geoff *Univ. of Toronto*
- 16:00-17:30 FrFPoT8.3
Quantitative Evaluation of Urine Absorption Volume of a Pad-Type Diaper by a Capacitive Sensor Attached to the Outer Surface of a Pants-Type Diaper
 Konno, Shujiro *Univ. of Toyama*; Kim, Juhyon *Univ. of Toyama*; Nakajima, Kazuki* *Univ. of Toyama*
- 16:00-17:30 FrFPoT8.4
A Wearable Swallowing Detector using an Apron Equipped with an Accelerometer for Elderly People in Need of Care
 Tsuzuki, Yutaka *Univ. of Toyama*; Nishitani, Kosei *Univ. of Toyama*; Kim, Juhyon *Univ. of Toyama*; Nakabayashi, Minako *Univ. of Toyama*; Tsubouti, Natsuko *Special Elderly Nursing Home*; Hayashi, Kazue *Special Elderly Nursing Home*; Nakajima, Kazuki* *Univ. of Toyama*

- 16:00-17:30 FrFPoT8.5
Urine Volume Evaluation by Four Non-Contact Temperature Sensors under a Toilet Seat
 Fujita, Koya *Univ. of Toyama*; Kim, Juhyon *Univ. of Toyama*; Nakajima, Kazuki* *Univ. of Toyama*
- 16:00-17:30 FrFPoT8.6
Fall Risk Assessment through Wireless Electromyography Technology
 Leone, Alessandro* *CNR-IMM*; Rescio, Gabriele *Institute for Microelectronics and Microsystems, National Resear, Caroppo, Andrea CNR-IMM*; Siciliano, Piero *Consiglio Nazionale delle Ricerche*; Diraco, Giovanni *IMM-CNR*
- 16:00-17:30 FrFPoT8.7
Slope Perception in Mobility Impaired Older Adults
 Leaker, Benjamin *Toronto Rehabilitation Institute - Univ. Health Network*; Li, Yue* *Toronto Rehabilitation Institute - Univ. Health Network*; Ravindran, Sharon *Univ. of Toronto, Toronto Rehab, Univ. Health Network*; Dutta, Tilak *Toronto Rehab, Univ. Health Network*; Fernie, Geoff *Univ. of Toronto*
- 16:00-17:30 FrFPoT8.8
Quantifying Mobility Scooter Performance in Winter Environments
 Montgomery, Roger *Toronto Rehab, Univ. Health Network*; Li, Yue* *Toronto Rehabilitation Institute - Univ. Health Network*; Dutta, Tilak *Toronto Rehab, Univ. Health Network*; Fernie, Geoff *Univ. of Toronto*
- 16:00-17:30 FrFPoT8.9
Gait Analysis of Older Adults on Slippery, Cross Slope Surfaces
 Ravindran, Sharon *Univ. of Toronto, Toronto Rehab, Univ. Health Network*; Li, Yue* *Toronto Rehabilitation Institute - Univ. Health Network*; Montgomery, Roger *Toronto Rehab, Univ. Health Network*; Dutta, Tilak *Toronto Rehab, Univ. Health Network*; Fernie, Geoff *Univ. of Toronto*
- 16:00-17:30 FrFPoT8.10
Development of an Assistive Robot for Transferring a Patient between Wheelchair and Bed
 Mizuno, Fumio* *Tohoku Institute of Tech.*; Nakamura, Ryosuke *Tohoku Institute of Tech.*; Ogawa, Kyohei *Tohoku Institute of Tech.*; Yamaguchi, Takami *Tohoku Univ.*
- 16:00-17:30 FrFPoT8.11
Estimation of Heart Rate at Anaerobic Threshold to Predict Athletic Ability
 Park, Heewon *Seoul Natl. Univ.*; Lee, Yunsung *Seoul Natl. Univ.*; Lee, Dongheon *Seoul Natl. Univ.*; Hong, Jeeyoung *Seoul Natl. Univ.*; Yoon, Hyung-Jin* *Seoul Natl. Univ.*
- 16:00-17:30 FrFPoT8.12
UWB Radar-Based Fall Detector: A Novelty Detection Approach
 Diraco, Giovanni* *National Research Council of Italy (CNR)*; Leone, Alessandro *CNR-IMM*; Siciliano, Piero *Consiglio Nazionale delle Ricerche*; Rescio, Gabriele *CNR-IMM*
- 16:00-17:30 FrFPoT8.13
Implementation and Test of a Sensor Fusion Algorithm to Determine the Relative Orientation of a Smartphone in Space
 Ottenberg, Florian* *Anhalt Univ. of Applied Sciences*; Lissel, Alexandra *Anhalt Univ. of Applied Sciences*; Bracio, Boris Romanus *Univ. of Applied Science Anhalt*
- 16:00-17:30 FrFPoT8.14
A Location Monitoring Application for Dementia
 Graf, Ethan *Bedford High School*; He, XueJian *The Hong Kong Polytechnic Univ.*; Choi, Kup-Sze* *Centre for Smart Health, School of Nursing, The Hong Kong Polyte*
- 16:00-17:30 FrFPoT8.15
Step Detection Accuracy of Six Physical Activity Monitoring Devices
 O'Connell, Sandra* *NUI Galway*; Broderick, Barry *National Univ. of Ireland Galway*; Quondamatteo, Fabio *National Univ. of Ireland Galway*; Quinlan, Leo *National Univ. of Ireland*; ÓLaighin, Gearoid *National Univ. of Ireland Galway*
- 16:00-17:30 FrFPoT8.16
Novel Concept for Evaluation of Standing Function based on Virtual Light Touch Contact
 Sakata, Mami* *Yokohama Natl. Univ.*; Shima, Keisuke *Yokohama Natl. Univ.*; Shimatani, Koji *Prefectural Univ. of Hiroshima*
- 16:00-17:30 FrFPoT8.17
Relationship between Cognitive Decline and Lane-Keeping Behaviors in Drivers with Mild Cognitive Impairment
 Endo, Kazuya *Univ. of Tokyo*; Nihei, Misato* *Univ. of Tokyo*; Ashida, Yudai *Univ. of Tokyo*; Tamai, Akira *Tsuruga Onsen hospital*; Kamata, Minoru *The Univ. of Tokyo*
- 16:00-17:30 FrFPoT8.18
Malnutrition is Associated with Risk of Falls – Importance of Nutritional Guidance in Novel Fall Prevention Technologies
 Immonen, Milla Sinikka* *VTT Technical Research Centre of Finland*; Similä, Heidi *VTT Technical Research Centre of Finland Ltd*; Enwald, Heidi *Univ. of Oulu*; Keränen, Niina *Univ. of Oulu*; Jaakko, Tornberg *Oulu Deaconess Institute*; Kangas, Maarit *Univ. of Oulu*; Marjukka, Nurkka *Oulu Deaconess Institute*; Jämsä, Timo *Univ. of Oulu*; Korpelainen, Raija *Oulu Deaconess Institute*
- 16:00-17:30 FrFPoT8.19
Development of a Method of Monitoring ADL in the Elderly That is Adapted to Real-Life Environments
 Yoshida, Takumi *The Univ. of Tokyo*; Nihei, Misato* *Univ. of Tokyo*; Okada, Tetsuaki *The Univ. of Tokyo*; Kamata, Minoru *The Univ. of Tokyo*
- FrFPoT9: 16:00-17:30 Gold Room
Undergraduate Student Posters (Poster Session)
- 16:00-17:30 FrFPoT9.1
Electromyography Analysis of the Effects of Chair Massage on the Back Musculature
 Ezquerro García, Santiago* *Biomedical Neuroengineering Univ. Miguel Hernández de Elch*; Morales, Ricardo, Ricardo *Univ. Miguel Hernandez*; Díez Pomares, Jorge *Univ. Miguel Hernández de Elche*; Badesa, Francisco Javier, Javier *Univ. Miguel Hernandez*; Sabater-Navarro, Jose Maria *Univ. Miguel Hernandez*; Garcia-Aracil, Nicolas *Univ. Miguel Hernandez*
- 16:00-17:30 FrFPoT9.2
Robotic Upper Limb Neurorehabilitation: Randomized Study as a Joint Tool to Inpatient Rehabilitation in Subacute Stroke
 Ezquerro García, Santiago* *Biomedical Neuroengineering Univ. Miguel Hernández de Elch*; Lledó Pérez, Luis Daniel *Univ. Miguel Hernández de Elche*; Díez Pomares, Jorge *Univ. Miguel Hernández de Elche*; Bertomeu-Motos, Arturo *Univ. Miguel Hernandez de Elche*; Sabater-Navarro, Jose Maria *Univ. Miguel Hernandez*; Garcia-Aracil, Nicolas *Univ. Miguel Hernandez*; García Manzanares, María Dolores *Univ. Hospital San Juan*
- 16:00-17:30 FrFPoT9.3
A Low-Cost Biomarker based SAW Biosensor Design for Early Detection of Prostate Cancer
 Okur, Bilal* *Marmara Univ.*; Sisman, Alper *Marmara Univ.*
- 16:00-17:30 FrFPoT9.4
Simulation of External Pacing and Arrhythmia Management: A Novel Training Experience
 Datsikas, Christopher* *Yale Univ.*; Carrillo, Alejandro *Yale Univ.*; Emerson, Maxwell *Yale Univ.*; Rockwood, Amy *Yale Univ.*; Torres, Andrea *Yale Univ.*; Sudikoff, Stephanie *Yale-New Haven Hospital*; Zheng, Ying *Yale Univ.*; Zinter, Joseph *Yale Univ.*
- 16:00-17:30 FrFPoT9.5
Detection of Foam Cells in Atherosclerotic Plaques via Entropy Analysis of IVOCT
 Delao-Arevalo, Luis* *Univ. Iberoamericana, Mexico*; Jo, Javier Antonio *Texas A&M Univ.*; Bojorges-Valdez, Erik Rene *Univ. Autonoma Metropolitana Iztapalapa*; Campos-Delgado, Daniel U. *Univ. Autonoma de San Luis Potosi*

- 16:00-17:30 FrFPoT9.6
Myoelectric Dynamic Orthosis for the Elbow
Alves, Wandyr da Silva *Centro Univ. da FEI*; Castro, Maria Claudia F.* *Centro Univ. da FEI*
- 16:00-17:30 FrFPoT9.7
Human Machine Interfaces by Means of Muscle Control
Werbiska, Andrews *Centro Univ. da FEI*; Cardoso Rodrigues, Bruno Daniel *Centro Univ. da FEI*; Julião, Univ.o *Centro Univ. da FEI*; Lemes Ignêz, Lucas *Centro Univ. da FEI*; Prado, André *Centro Univ. da FEI*; Parro, Vanderlei C. *Centro Univ. da FEI*; Lucchi, Julio C. *Centro Univ. da FEI*; Castro, Maria Claudia F.* *Centro Univ. da FEI*
- 16:00-17:30 FrFPoT9.8
Optimal Probe Design of Spatially-Resolved NIRS for Stomach Tissues
Tomimatsu, Keisuke* *Shizuoka Univ.*; Niwayama, Masatsugu *Shizuoka Univ.*
- 16:00-17:30 FrFPoT9.9
Influence of Bone Tissue Microstructure on Spatially-Resolved Optical Measurement
Toyoba, Atsushi* *Shizuoka Univ.*; Niwayama, Masatsugu *Shizuoka Univ.*
- 16:00-17:30 FrFPoT9.10
Measurement of Wide-Range Optical Properties for Biological Tissue using Laser Rangefinder and Reflectance Profile
Kitagawa, Kazuki* *Shizuoka Univ.*; Niwayama, Masatsugu *Shizuoka Univ.*
- 16:00-17:30 FrFPoT9.11
Time-Resolved Transmittance Measurement for Biological Tissues with a High Time-Resolution CMOS Lock-In Pixel Imager
Sobue, Keita* *Shizuoka Univ.*; Seo, Min-Woong *Shizuoka Univ.*; Niwayama, Masatsugu *Shizuoka Univ.*; Kagawa, Keiichiro *Shizuoka Univ.*; Yasutomi, Keita *Shizuoka Univ.*; Kawahito, Shoji *Shizuoka Univ.*
- 16:00-17:30 FrFPoT9.12
Comparative Assessment of Methods for Quantitative Susceptibility Mapping on a Clinical Magnetic Resonance Data Set
Palombit, Alessandro* *Univ. di Padova*; Castellaro, Marco *Univ. di Padova*; Tonietto, Matteo *Univ. di Padova*; Silvestri, Erica *Univ. di Padova*; Calabrese, Massimiliano *Univ. di Verona*; Bertoldo, Alessandra *Univ. di Padova*
- 16:00-17:30 FrFPoT9.13
Identification of the Hyperelastic Material Properties of Intact Intervertebral Discs
Nazemzade, Nogol *Khalifa Univ.*; Nikkhoo, Mohammad *Science and Research Branch, Islamic Azad Univ.*; Parnianpour, Mohammad Sharif *Univ. of Technology*; Wang, J.L. *National Taiwan Univ.*; Khalaf, Kinda* *KUSTAR*
- 16:00-17:30 FrFPoT9.14
A Multisensory Mobile Integrated Insole System for the Early Detection of the Diabetic Foot
Al Shaibani, Fahad *Khalifa Univ.*; Alangari, Haitham M. *Khalifa Univ.*; Khalaf, Kinda* *KUSTAR*
- 16:00-17:30 FrFPoT9.15
Piezoelectric Non-Invasive Pulse Wave Analyzer
Madhusudana, Pavan* *Natl. Institute of Tech., Karnataka, Surathkal*; Gopal, Govind *Natl. Institute of Tech., Karnataka, Surathkal*; Suresha, Pradyumna *Natl. Institute of Tech., Karnataka, Surathkal*; S, Harisankar *Natl. Institute of Tech., Karnataka, Surathkal*; Navaneet, KL *Natl. Institute of Tech., Karnataka, Surathkal*; Vijayasanen, Deepu *Natl. Institute of Tech., Karnataka, Surathkal*
- 16:00-17:30 FrFPoT9.16
BMFLC Adaptive Filter for Detecting SSVEP in Noisy EEG Recordings
Mahdi, S.* *The Univ. of Manchester*; Spasov, S. *Univ. of Manchester*; Casson, Alexander James *The Univ. of Manchester*
- 16:00-17:30 FrFPoT9.17
A Low Cost 15-Day Body Temperature Monitoring Device
Mahdi, Sammy* *The Univ. of Manchester*; Casson, Alexander James *The Univ. of Manchester*
- 16:00-17:30 FrFPoT9.18
Distinguishing Healthy Physiological from Parkinson's Tremor
Spasov, Simeon* *Univ. of Manchester*; Ozanyan, Krikor *Univ. of Manchester*
- 16:00-17:30 FrFPoT9.19
Low Cost Instrumentation for Electrical Impedance Tomography in Biomedical Applications
Wu, Hancong *The Univ. of Edinburgh*; Jia, Jiabin *The Univ. of Edinburgh*; Smith, Stewart* *The Univ. of Edinburgh*
- 16:00-17:30 FrFPoT9.20
Noninvasive in Vivo Estimation of the Human Aortic Stress-Strain Relationship
Tzortzi, Marianna* *National Technical Univ. of Athens*; Golemati, Spyretta *National Kapodistrian Univ. of Athens*; Li, Ronny *Columbia Univ.*; Russo, Cesare *Columbia Univ. Medical Center*; Konofagou, Elisa *Columbia Univ.*
- 16:00-17:30 FrFPoT9.21
New Approaches to Design of Artificial Sphincters
Hammoudeh, Sarah *Khalifa Univ.*; Al Zaabi, Lateefa *Khalifa Univ.*; Abu Sal, Heba *Khalifa Univ.*; Al Amri, Intissar *Khalifa Univ.*; Alawi, Mulook *Khalifa Univ.*; Hani, Saleh *Khalifa Univ.*; Stefanini, Cesare *Scuola Superiore Sant'Anna*; McGloughlin, Tim* *Khalifa Univ. of Science Research and Technology*
- 16:00-17:30 FrFPoT9.22
Fuzzy Logic Recommendation Application for Vestibulo-Ocular Reflex Estimation
Nguyen, Thi Anh Dao *Inha Univ.*; Byun, Kihoon *Inha Univ.*; Kim, Kyu-Sung *Associate Professor, Dept. of Otolaryngology-Head & Neck Su*; Lee, Sang Min *INHA Univ.*; Kwon, Jang Woo* *Inha Univ.*; Kim, Dae Young *Inha Univ.*
- 16:00-17:30 FrFPoT9.23
Classification of Sitting Position by the IMU Built-In Neckband to Prevent Incorrect Posture
Oh, Hyuntaek *Inha Univ.*; Ma, SangYong *Inha Univ.*; Cho, Woo Hyeong *Inha Univ.*; An, Hong-Sub *Inha Univ.*; Shim, Hyeon-min *Inha Univ.*; Lee, Sang Min* *INHA Univ.*
- 16:00-17:30 FrFPoT9.24
Look, Blink, Concentrate, and Control: A Simple Smart House Controller Composed of a Simple BCI, ECHONET Lite and a Smart Glass with a Function of Object Recognition
Otsuka, Yuya* *Shibaura Institute of Technology*; Ishii, Genki *NTT Data Financial Core Corp.*; Saeki, Shunichi *Shibaura Institute of Technology*; Imanara, Shohei *Shibaura Institute of Technology*; Horie, Ryota *Shibaura Institute of Technology*
- 16:00-17:30 FrFPoT9.25
A Prototype Access Control System for the Integrated Clinical Environment
Bagshaw, Dylan* *Wentworth Institute of Technology*; Arney, David *CIMIT, Univ. of Pennsylvania*; Krishnan, Shankar *WIT*; Goldman, Julian *Massachusetts General Hospital, CIMIT, Partners HealthCare*
- 16:00-17:30 FrFPoT9.26
A Fast Tractography Visualization Tool using Modern OpenGL
Bonometti, Danilo* *Univ. de Concepción*; Osorio, Ignacio Javier *Univ. de Concepción*; Duclap, Delphine *I2BM, CEA-NeuroSpin*; Lebois, Alice *I2BM, Cea, NeuroSpin*; Poupon, Cyril *CEA I2BM NeuroSpin*; Mangin, Jean-François *CEA I2BM NeuroSpin*; Guevara, Pamela *Univ. of Concepción*
- 16:00-17:30 FrFPoT9.27
Structural Breaks in Heart Rate Variability Time Series
Introini, Monica* *Univ. degli Studi di Milano*; Rocha, Ana Paula *Univ. do Porto, Faculdade de Ciencias*

16:00-17:30	FrFPoT9.28	The Comparison of EEG between Element School Students with and without Mathematical Learning Disabilities Liu, Shing-Hong* <i>Chaoyang Univ. of Technology, Taichung, Taiwan, ROC</i> ; Huang, Jay <i>Institute of Industrial Design, Chaoyang Univ. of Technolog</i> ; Wang, Jia-Jung <i>I-Shou Univ.</i>	FrGT2: 17:30-19:00	Brown 2
16:00-17:30	FrFPoT9.29	Project of a Software Solution to Integrate Medication Adherence, Diet Recommendation, Physical Activity Support and Monitoring of Vital Parameters in Order to Improve Survival and Quality of Life in Patients with Cardiovascular Disease Plesoianu, Alexandru Florin* <i>Univ. of Medicine and Pharmacy "GR. T. Popa" IASI</i> ; Pleşoianu, Carmen Elena <i>Univ. of Medicine and Pharmacy "GR. T. Popa" IASI</i>	17:30-17:45	FrGT2.1
16:00-17:30	FrFPoT9.32	Improving the kNN Method for Breast Cancer Diagnosis Palacios Pawlovsky, Alberto* <i>Toin Univ. of Yokohama</i> ; Akiyoshi, Takumi <i>Toin Univ. of Yokohama</i> ; Hasegawa, Junja <i>Toin Univ. of Yokohama</i> ; Asanuma, Akihiro <i>Toin Univ. of Yokohama</i>	17:45-18:00	FrGT2.2
16:00-17:30	FrFPoT9.33	Body Area Network for Monitoring Physiological Condition of Human Body with Mobil Application Gentry, Derek <i>Wilkes Univ.</i> ; Sabouni, Abas* <i>Wilkes Univ.</i>	18:00-18:15	FrGT2.3
16:00-17:30	FrFPoT9.34	Glucose Sensors for Diabetes Management: No Need of 24h Warm-Up Time by use of Bayes Estimation Acciaroli, Giada* <i>Univ. of Padova</i> ; Vettoretti, Martina <i>Univ. of Padova</i> ; Facchinetti, Andrea <i>Univ. of Padova</i> ; Sparacino, Giovanni <i>Univ. of Padova</i> ; Cobelli, Claudio <i>Univ. of Padova</i>	18:15-18:30	FrGT2.4
16:00-17:30	FrFPoT9.35	A Systems Engineering Approach to Coronary Heart Disease Mathews, Marc John* <i>North-West Univ.</i> ; Mathews, Edward Henry <i>North-West Univ.</i>	18:30-18:45	FrGT2.5
16:00-17:30	FrFPoT9.36	Using MATLAB® Platform for Image Segmentation and FEM-Compatible Triangular Surface Mesh Generation – Vertebral Column of Visible Human Project– Female Helderman, Alex <i>Worcester Polytechnic Institute</i> ; Thang, Niang Suan <i>Worcester Polytechnic Institute</i> ; Dolma, Tsering <i>Worcester Polytechnic Institute</i> ; Trinh, Thai <i>Worcester Polytechnic Institute</i> ; Piazza, Matthew <i>Worcester Polytechnic Institute</i> ; Zhang, Jinwei <i>Worcester Polytechnic Institute</i> ; Yanamadala, Janakinadh <i>Worcester Polytechnic Institute</i> ; Makarov, Sergey* <i>Electrical and Computer Engineering, Worcester Polytechnic Instit</i>	18:45-19:00	FrGT2.6
16:00-17:30	FrFPoT9.37	Using Fuzzy Logic for Usability Evaluation of Medical Visualization Amri, Saber* <i>Univ. of Sfax</i> ; Ltifi, Hela <i>Member IEEE</i> ; Ben Ayed, Mounir <i>Faculty of Science of Sfax</i>	FrGT3: 17:30-19:00	Brown 3
16:00-17:30	FrFPoT9.38	Multi-Agents based Architecture for Designing Visual Intelligent Healthcare Monitoring System Ellouzi, Hamdi* <i>REGIM</i> ; Ltifi, Hela <i>Member IEEE</i> ; Ben Ayed, Mounir <i>Faculty of Science of Sfax</i>	17:30-17:45	FrGT3.1
16:00-17:30	FrFPoT9.40	Phase Type Survival Tree Analysis for Characterising the Weather Effects on the Patient's Length of Stay Attard, Natasha* <i>Univ.</i> ; Garg, Lalit <i>Univ. of Malta</i> ; Calleja, Neville <i>Dept. of Health Information & Research' (DHIR), Government</i> ; Distefano, Alexandra <i>Dept. of Health Information & Research' (DHIR), Government</i>	17:45-18:00	FrGT3.2
			5.8 Microcirculation: New Methods for Gathering Information about Peripheral Blood Flow (Invited Session) Chair: Bocchi, Leonardo <i>Univ. degli Studi di Firenze, Firenze, Italy</i> Co-Chair: Humeau-Heurtier, Anne <i>University of Angers</i>	
			Analysis of the Microcirculatory Pulse Wave: Age-Related Alterations Straface, Giada <i>Univ. of Pisa</i> ; Landini, Luigi <i>Univ. of Pisa</i> ; Barrella, Massimo <i>Sacco Hospital</i> ; Bevilacqua, Maurizio L. <i>Sacco Hospital, Milan</i> ; Evangelisti, Attilio <i>Univ. of Florence</i> ; Bocchi, Leonardo* <i>Univ. degli Studi di Firenze, Firenze, Italy</i>	
			Ageing of the Couplings between Cardiac, Respiratory and Myogenic Activity in Humans Ticcinelli, Valentina* <i>Lancaster Univ.</i> ; Stankovski, Tomislav <i>Lancaster Univ.</i> ; McClintock, Peter V. E. <i>Lancaster Univ.</i> ; Stefanovska, Aneta <i>Lancaster Univ.</i>	
			Analysis of Microvascular Perfusion with Multi-Dimensional Complete Ensemble Empirical Mode Decomposition with Adaptive Noise Algorithm: Processing of Laser Speckle Contrast Images Recorded in Healthy Subjects, at Rest and during Acetylcholine Stimulation Humeau-Heurtier, Anne* <i>Univ. of Angers</i> ; Marche, Pauline <i>Univ. Hospital of Angers</i> ; Dubois, Severine <i>Univ. Hospital of Angers</i> ; Mahé, Guillaume <i>Univ. Hospital of Rennes</i>	
			Wavelet Analysis of the Laser Doppler Signal to Assess Skin Perfusion Bagno, Andrea* <i>Univ. of Padova</i> ; Martini, Romeo <i>UOC of Angiology, Azienda Ospedale Univ. di Padova</i>	
			Monitoring the Microcirculation at the Bedside using Hand-Held Imaging Microscopes: Automatic Tracking of Erythrocytes Sorelli, Michele* <i>Dept. of Information Engineering, Univ. of Florence/Dept. o</i> ; Bocchi, Leonardo <i>Univ. degli Studi di Firenze, Firenze, Italy</i> ; Ince, Can <i>Dept. of Intensive Care, Erasmus MC Univ. Medical Center, R</i>	
			Skin Blood Flow and Temperature Oscillations during Cold Pressor Test Mizeva, Irina* <i>Institute of Continuous Media Mechanics UB RAS</i> ; Frick, Peter <i>Institute of Continuous Media Mechanics</i> ; Podtaev, Sergey <i>FM Diagnostics</i>	
			6.24 New Technological Platforms to Study Children Development (Invited Session) Co-Chair: Cecchi, Francesca <i>Scuola Superiore Sant'Anna</i>	
			An Automated System for Quantitative Analysis of Newborns' Oral-Motor Behavior and Coordination during Bottle Feeding Tamilia, Eleonora* <i>Univ. Campus Bio Medico di Roma</i> ; Formica, Domenico <i>Campus Bio-Medico Univ.</i> ; Anna Maria, Visco <i>Neonatal Care Unit of Santa Maria Goretti Hospital</i> ; Scaini, Alberto <i>Neonatal Care Unit of Santa Maria Goretti Hospital</i> ; Taffoni, Fabrizio <i>Campus Bio-Medico Univ.</i>	
			Sensorized Toys for Measuring Manipulation Capabilities of Infants at Home Passeti, Giovanni <i>Scuola Superiore Sant'Anna, the BioRobotics Institute</i> ; Cecchi, Francesca* <i>Scuola Superiore Sant'Anna</i> ; Baldoli, Ilaria <i>Scuola Superiore Sant'Anna, the BioRobotics Institute</i> ; Sgandurra, Giuseppina <i>Scuola Superiore Sant'Anna</i> ; Beani, Elena <i>Stella Maris Scientific Institute, Dept. of Developmental N</i> ; Cioni, Giovanni <i>Stella Maris Scientific Institute</i> ; Laschi, Cecilia <i>Scuola Superiore Sant'Anna</i> ; Dario, Paolo <i>Scuola Superiore Sant'Anna</i>	

- 18:00-18:15 FrGT3.3
Sensorized Graspable Devices for the Study of Motor Imitation in Infants
 Baldoli, Ilaria *Scuola Superiore Sant'Anna, the BioRobotics Institute*; Cecchi, Francesca* *Scuola Superiore Sant'Anna*; Guzzetta, Andrea *Stella Maris Scientific Institute, Dept. of Developmental N*; Laschi, Cecilia *Scuola Superiore Sant'Anna*
- 18:15-18:30 FrGT3.4
Sensorized Pacifier to Quantify the Rhythmicity of Non-Nutritive Sucking: A Preliminary Study on Newborns
 Grassi, Angela *Scuola Superiore Sant'Anna, the BioRobotics Institute*; Cecchi, Francesca* *Scuola Superiore Sant'Anna*; Guzzetta, Andrea *Stella Maris Scientific Institute, Dept. of Developmental N*; Laschi, Cecilia *Scuola Superiore Sant'Anna*
- 18:30-18:45 FrGT3.5
Artificial Nociception and Motor Responses to Pain, for Humans and Robots
 Bagnato, Carlo *Imperial College of Science, Technology and Medicine*; Takagi, Atsushi *Imperial College of Science, Technology and Medicine*; Burdet, Etienne* *Imperial College of Science, Technology and Medicine*
- 18:45-19:00 FrGT3.6
Gait Rehabilitation with a High Tech Platform based on Virtual Reality Conveys Improvements in Walking Ability of Children Suffering from Acquired Brain Injury
 Biffi, Emilia* *Scientific Institute Eugenio Medea, Bosisio Parini*; Beretta, Elena *IRCCS "E. Medea", Associazione La Nostra Famiglia, Bosisio Parini*; Diella, Eleonora *Scientific Institute Eugenio Medea, Bosisio Parini*; Panzeri, Daniele *Scientific Institute Eugenio Medea, Bosisio Parini*; Cristina, Maghini *Scientific Institute Eugenio Medea, Bosisio Parini*; Turconi, Anna Carla *Scientific Institute Eugenio Medea, Bosisio Parini*; Strazzer, Sandra *IRCCS; Reni, Gianluigi IRCCS*
- FrGT4: 17:30-19:00 Amber 1
1.33 Nonlinear Analysis of EEG and MEG Signals (Oral Session)
 Chair: Witte, Herbert *Jena Univ. Hospital Friedrich Schiller Univ.*
 Co-Chair: Zouridakis, George *Univ. of Houston*
- 17:30-17:45 FrGT4.1
Nonlinear Analysis of EEG in Major Depression with Fractal Dimensions
 Akdemir Akar, Saime* *Fatih Univ.*; Kara, Sadik *Fatih Univ.*; Agambayev, Sümeyra *Fatih Univ.*; Bilgic, Vedat *Bakirkoy Mental Health Research and Training Hospital*
- 17:45-18:00 FrGT4.2
Volume Conduction Effects on Bivariate Lempel-Ziv Complexity of Alzheimer's Disease Electroencephalograms
 Simons, Samantha* *Univ. of Surrey*; Abasolo, Daniel *Univ. of Surrey*; Sauseng, Paul *Ludwig-Maximilian-Univ. Munich*
- 18:00-18:15 FrGT4.3
Convergent Cross Mapping: Basic Concept, Influence of Estimation Parameters and Practical Application
 Schiecke, Karin* *Jena Univ. Hospital. Friedrich Schiller Univ. Jena*; Pester, Britta *Jena Univ. Hospital; Friedrich Schiller Univ. Je*; Feucht, Martha *Epilepsy Monitoring Unit, Dept. of Child and Adolescent Neu*; Leistritz, Lutz *Jena Univ. Hospital, Friedrich Schiller Univ. Jena*; Witte, Herbert *Jena Univ. Hospital Friedrich Schiller Univ.*
- 18:15-18:30 FrGT4.4
Evaluation of Resting-State Magnetoencephalogram Complexity in Alzheimer's Disease with Multivariate Multiscale Permutation and Sample Entropies
 Azami, Hamed *Univ. of Edinburgh*; Smith, Keith *Univ. of Edinburgh*; Fernandez, Alberto *Univ. Complutense de Madrid*; Escudero, Javier* *Univ. of Edinburgh*
- 18:30-18:45 FrGT4.5
Comparison of Brain Network Models using Cross-Frequency Coupling and Attack Strategies
 Antonakakis, Marios* *Technical Univ. of Crete*; Dimitriadis, Stavros *Aristotle Univ.*; Zervakis, Michalis *Technical Univ. of Crete, Greece*; Rezaie, Roozbeh *Univ. of Texas Medical School*; Babajani-Feremi, Abbas *The Univ. of Tennessee Health Science Center*; Micheloyannis, Sifis *Univ. of Crete*; Zouridakis, George *Univ. of Houston*; Papanicolaou, Andrew *Univ. of Texas Medical School*
- 18:45-19:00 FrGT4.6
Spatial Variation in Automated Burst Suppression Detection in Pharmacologically Induced Coma
 An, Jingzhi* *MIT*; Jonnalagadda, Durga *Massachusetts General Hospital*; Moura Junior, Valdery *MGH*; Purdon, Patrick L *Massachusetts General Hospital*; Brown, Emery N *MGH-Harvard Medical School-MIT*; Westover, Brandon *Massachusetts General Hospital*
- FrGT5: 17:30-19:00 Amber 2
1.34 Independent Component Analysis (Oral Session)
 Co-Chair: Rejer, Izabela *West Pomeranian Univ. of Tech., Szczecin*
- 17:30-17:45 FrGT5.1
Benefits of ICA in the Case of a Few Channel EEG
 Rejer, Izabela* *West Pomeranian Univ. of Technology, Szczecin*; Górski, Pawel *West Pomeranian Univ. of Technology*
- 17:45-18:00 FrGT5.2
Clusters of Mu Rhythm from EEG Data: A Comparative Study between 61 and 19 Channel Datasets
 Tacchino, Giulia* *Politecnico di Milano*; Bianchi, Anna Maria *Politecnico di Milano*
- 18:00-18:15 FrGT5.3
Neurophysiological Correlates in Mild Cognitive Impairment Detected using Group Independent Component Analysis
 Ochoa, John Fredy* *Univ. of Antioquia*; Ruiz Vélez, Leidy Mariana *Univ. de Antioquia*; Valle Lopera, Diego Andrés *Univ. de Antioquia*; Duque-Grajales, Jon *Univ. de Antioquia*; Tobon, Carlos Andrés *Univ. de Antioquia*; Alonso, Joan Francesc *Univ. Politècnica de Catalunya (UPC)*; Hernandez, Alher Mauricio *Univ. of Antioquia*; Mañanas, Miquel Angel *Technical Univ. of Catalonia (UPC)*
- 18:15-18:30 FrGT5.4
Comparison between Different Similarity Measure Functions for Optimal Clustering AEPs Independent Components
 Castaneda-Villa, Norma* *Univ. Autónoma Metropolitana-Izt*; Cornejo-Cruz, Juan Manuel *Univ. Autònoma Metropolitana*; Granados Trejo, María del Pilar *Univ. Autónoma Metropolitana-Iztapalapa*
- 18:30-18:45 FrGT5.5
Non-Parametric Group-Level Statistics for Source-Resolved ERP Analysis
 Lee, Clement* *Univ. of California San Diego*; Miyakoshi, Makoto *Swartz Center for Computational Neuroscience, INC, UCSD*; Delorme, Amaud *UCSD*; Cauwenberghs, Gert *Univ. of California San Diego*; Makeig, Scott *Univ. of California San Diego*
- 18:45-19:00 FrGT5.6
Accurate Heart Rate Estimation from Camera Recording via MUSIC Algorithm
 Fouladi, Seyyed Hamed* *Norwegian Univ. of Science and Technology*; Balasingham, Ilango *Oslo Univ. Hospital and Norwegian Univ. of Science and*; Ramstad, Tor *Dept. of Electronics and Telecommunications, NTNU*; Kansanen, Kimmo *Norwegian Univ. of Science and Technology*
- FrGT6: 17:30-19:00 Amber 3
2.25 Image Classification and Feature Extraction I (Oral Session)
 Co-Chair: Zubiolo, Alexis *University of Nice Sophia Antipolis*
- 17:30-17:45 FrGT6.1
Bacterial Colony Counting by Convolutional Neural Networks
 Ferrari, Alessandro *Univ. of Brescia, Copan Italia SpA*; Lombardi, Stefano *Univ. of Brescia*; Signoroni, Alberto* *Univ. of Brescia*

- 17:45-18:00 FrGT6.2
A Clinically Oriented System for Melanoma Diagnosis using a Color Representation
 Barata, Catarina* *Instituto Superior Tecnico*; Celebi, M. Emre *Louisiana State Univ in Shreveport*; Marques, Jorge *Instituto Superior Tecnico*
- 18:00-18:15 FrGT6.3
Morphological Analysis and Feature Extraction of Neurons from Mouse Cortices Multiscale 3D Microscopic Images
 Zubiolo, Alexis* *Univ. of Nice Sophia Antipolis*; Harb, Kawssar *Univ. of Nice Sophia Antipolis*; Studer, Michèle *Univ. of Nice Sophia Antipolis*; Debreuve, Eric *CNRS*; Descombes, Xavier *INRIA*
- 18:15-18:30 FrGT6.4
Analysis of White Blood Cell Dynamics in Nailfold Capillaries
 Bourquard, Aurelien* *Massachusetts Institute of Technology*; Butterworth, Ian Richard *M+Vision / MIT*; Sanchez-Ferro, Alvaro *MIT*; Giancardo, Luca *Univ. of Burgundy - Oak Ridge National Lab*; Soenksen, Luis Ruben *Johns Hopkins Univ.*; Cerrato, Carolina *Hospital Univ. de Fuenlabrada*; Flores, Rafael *Hospital Univ. de Fuenlabrada*; Castro-Gonzalez, Carlos *MIT*
- 18:30-18:45 FrGT6.5
The Detection of Breathing Behavior using Eulerian-Enhanced Thermal Video
 Bennett, Stephanie Louise* *Carleton Univ.*; Goubran, Rafik A. *Carleton Univ.*; Knoefel, Frank-Dietrich *Bruyere Continuing Care, Univ. of Ottawa, Carleton Univ.*
- 18:45-19:00 FrGT6.6
Analyzing Dynamic Cellular Morphology in Time-Lapsed Images Enabled by Cellular Deformation Pattern Recognition
 Li, Heng* *Beijing Institute of Technology*; Liu, Zhiwen *Beijing Institute of Technology*; Pang, Fengqian *Beijing Institute of Technology*; Fan, Zheyi *Beijing Institute of Technology*; Shi, Yonggang *Beijing Institute of Technology*
- FrGT7: 17:30-19:00 Amber 4
2.26 Sparsity-based Imaging and Analysis (Oral Session)
Chair: Santarelli, Maria Filomena *CNR*
Co-Chair: Sutton, Bradley P. *Univ. of Illinois at Urbana-Champaign*
- 17:30-17:45 FrGT7.1
High Temporal Resolution Functional MRI with Partial Separability Model
 Ngo, Giang Chau *Univ. of Illinois at Urbana-Champaign*; Holtrop, Joseph *Univ. of Illinois at Urbana-Champaign*; Fu, Maojing *Univ. of Illinois at Urbana-Champaign*; Lam, Fan *Univ. of Illinois at Urbana-Champaign*; Sutton, Bradley P.* *Univ. of Illinois at Urbana-Champaign*
- 17:45-18:00 FrGT7.2
Fast Reference based MRI
 Weizman, Lior *Technion, Israel Institute of Tech.*; Eldar, Yonina *The Technion, Israel Institute of Tech.*; Eilam, Alon *Technion Israel Institute of Tech.*; Londner, Samuel* *Technion Israel Institute of Tech.*; Artzi, Moran *Tel Aviv Medical Center*; Ben Bashat, Dafna *Tel Aviv Sourasky Medical Center*
- 18:00-18:15 FrGT7.3
An Easily-Achieved Time-Domain Beamformer for Ultrafast Ultrasound Imaging based on Compressive Sensing
 Wang, Congzhi* *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*; Peng, Xi *Shenzhen Institutes of Advanced Technology*; Liang, Dong *Shenzhen Institutes of Advanced Technology*; Xiao, Yang *the Paul C. Lauterbur Research Center for Biomedical Imaging, the Insti*; Qiu, Weibao *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*; Qian, Ming *Chinese Academy of Sciences*; Zheng, Hairong *Shenzhen Inst of Advanced Tech*
- 18:15-18:30 FrGT7.4
A Compressed Sensing based Approach on Discrete Algebraic Reconstruction Technique
 Demircan Tureyen, Ezgi* *Istanbul Kultur Univ.*; Kamasak, Mustafa *Istanbul Technical Univ.*
- 18:30-18:45 FrGT7.5
Reference Guided CS-MRI with Gradient Orientation Priors
 Peng, Xi* *Shenzhen Institutes of Advanced Tech.*; Zhu, Qingyong *Shenzhen Institutes of Advanced Tech.*; Wang, Shanshan *Shenzhen Institutes of Advanced Tech.*; Liang, Dong *Shenzhen Institutes of Advanced Tech.*
- 18:45-19:00 FrGT7.6
A Novel 3D Cartesian Random Sampling Strategy for Compressive Sensing Magnetic Resonance Imaging
 Valvano, Giuseppe* *Univ. of Pisa, Pisa (PI)*; Martini, Nicola *Univ. of Pisa*; Santarelli, Maria Filomena *CNR*; Chiappino, Dante *Fondazione G. Monasterio, CNR-Regione Toscana, Pisa, PI, Italy*; Landini, Luigi *Univ. of Pisa*
- FrGT8: 17:30-19:00 Amber 5
3.11 Bioelectric Sensing Methods (Oral Session)
- 17:30-17:45 FrGT8.1
The Effects of Temperature Changes on Retinal Ganglion Cell Responses to Electrical Stimulation
 Maturana, Matias *Univ. of Melbourne*; Apollo, Nicholas V.* *Univ. of Melbourne*; Garrett, David J. *Univ. of Melbourne*; Kameneva, Tatiana *The Univ. of Melbourne, NICTA*; Meffin, Hamish *National ICT Australia*; Ibbotson, Michael R *Australian College of Optometry*; Cloherty, Shaun L. *National Vision Research Institute*; Grayden, David B. *The Univ. of Melbourne*
- 17:45-18:00 FrGT8.2
High-Channel-Count, High-Density Microelectrode Array for Closed-Loop Investigation of Neuronal Networks
 Tsai, David* *Columbia Univ.*; John, Esha *Columbia Univ.*; Chari, Tarun *Columbia Univ.*; Yuste, Rafael *Columbia Univ.*; Shepard, Kenneth *Columbia Univ.*
- 18:00-18:15 FrGT8.3
A Method for Voltage Measurements of Cancerous vs Non-Cancerous Omentum
 Wu, Wen *Imperial College London*; Vitharana, Kalpani *Imperial College London*; Gorgy, Tommy *Imperial College London*; Paterson, Andrew *Imperial College London*; Cunnea, Paula *Imperial College London*; Gabra, Hani *Imperial College London*; Fotopoulou, Christina *Imperial College London*; Boutelle, Martyn G. *Imperial College London*; Drakakis, Emmanuel M.* *Imperial College*
- 18:15-18:30 FrGT8.4
A Miniaturized Monitoring System for Electrochemical Biosensing using *Shewanella Oneidensis* in Environmental Applications
 Zhou, Alyssa* *Univ. of California, Berkeley*; Zajdel, Tom *Univ. of California, Berkeley*; TerAvest, Michaela *Univ. of California, Berkeley*; Maharbiz, Michel *Univ. of California, Berkeley*
- 18:30-18:45 FrGT8.5
Electrochemistry Provides a Simple Way to Monitor *Pseudomonas Aeruginosa* Metabolites
 Oziat, Julie* *CEA*; Elsen, Sylvie *UMR1036 INSERM-CEA-UJF /CNRS ERL5261*; Owens, Roisin M. *Dept of Bioelectronics, Ecole Nationale Supérieure des Mi*; Malliaras, George *Ecole Nationale Supérieure des Mines, CMP-EMSE, MOC*; Mailley, Pascal *CEA LETI*
- 18:45-19:00 FrGT8.6
An RFID-Based On-Lens Sensor System for Long-Term IOP Monitoring
 Hsu, Shun-Hsi* *National Chiao Tung Univ.*; Chiou, Jin-Chern *National Chiao-Tung Univ.*; Liao, Yu-Te *National Chiao Tung Univ.*; Yang, Tzu-Sen *National Chiao Tung Univ.*; Kuei, Cheng-Kai *National Chiao Tung Univ.*; Wu, Tsung-Wei *National Chiao Tung Univ.*; Huang, Yu-Chieh *National Chiao Tung Univ.*

FrGT9: 17:30-19:00 Amber 6
3.12 Bioelectric Sensors (Oral Session)
Chair: Neuman, Michael *Michigan Technological University*
Co-Chair: Martinsen, Ørjan G *University of Oslo*

17:30-17:45 FrGT9.1
CMOS Dielectrophoretic Lab-On-Chip Platform for Manipulation and Monitoring of Cells
 Park, Kyoungchul *Tufts Univ.*; Kabiri, Shideh *Tufts Univ.*;
 Sonkusale, Sameer* *Tufts Univ.*

17:45-18:00 FrGT9.2
A CMOS Sensor for Rapid Testing of Pathogen Susceptibility to Pore-Forming Antibiotics
 Nikkhoo, Nasim* *Univ. of Toronto*; Gulak, Glenn *Univ. of Toronto*; Maxwell, Karen *Univ. of Toronto*

18:00-18:15 FrGT9.3
Comparative Testing of Piezoelectric and Printed Strain Sensors in Characterization of Chewing
 Farooq, M. *Univ. of Alabama*; Sazonov, E.* *Univ. of Alabama*

18:15-18:30 FrGT9.4
Effects of Stray Capacitance to Ground in Three Electrode Monopolar Needle Bioimpedance Measurements
 Kalvøy, Håvard* *Rikshospitalet, Oslo Univ. Hospital, Oslo, Norway*; Aliau-Bonet, Carles *Univ. Politècnica de Catalunya, BarcelonaTech (UPC)*; Caste; Pallas-Areny, Ramon *Univ. Politècnica de Catalunya*; Martinsen, Ørjan G *Univ. of Oslo*

18:30-18:45 FrGT9.5
Thin-Film Microelectronic Wearable Body Sensors
 Neuman, Michael* *Michigan Technological Univ.*

18:45-19:00 FrGT9.6
Detection and Classification of Tastants in Vivo using a Novel Bioelectronic Tongue in Combination with Brain-Machine Interface
 Qin, Zhen *Zhejiang Univ.*; Zhang, Bin *Zhengjiang Univ.*; Hu, Ning *Zhejiang Univ.*; Wang, Ping* *Zhejiang Univ.*

FrGT10: 17:30-19:00 Amber 7
6.25 Brain Functional Imaging I (Oral Session)
Chair: Hadjileontiadis, Leontios *Aristotle University of Thessaloniki*

17:30-17:45 FrGT10.1
Design of an Implantable Artificial Dural Window for Chronic Two-Photon Optical Imaging in Non-Human Primates
 Trautmann, Eric* *Stanford*; O'Shea, Dan *Stanford Univ.*; Shrestha, Shikhar *Stanford Univ.*; Lin, Steven *Stanford Univ.*; Ryu, Stephen *Stanford Univ.*; Shenoy, Krishna V. *Stanford Univ.*

17:45-18:00 FrGT10.2
Beamformer-Based Imaging of Phase-Amplitude Coupling using Electromagnetic Brain Activity
 Chan, Hui-Ling* *National Chiao Tung Univ.*; Chen, Yong-Sheng *National Chiao Tung Univ.*; Chen, Li-Fen *National Yang-Ming Univ.*; Baillet, Sylvain *McGill Univ.*

18:00-18:15 FrGT10.3
An Extendable Simulation Framework for Benchmarking EEG-Based Brain Connectivity Estimation Methodologies
 Haufe, Stefan* *Berlin Institute of Technology*

18:15-18:30 FrGT10.4
Identification of the Default Mode Network with Electroencephalography
 Fomina, Tatiana* *Max Planck Institute for Intelligent Systems*; Hohmann, Matthias *Max Planck Institute for Intelligent Systems*; Schölkopf, Bernhard *MPI for Biological Cybernetics*; Grosse-Wentrup, Moritz *Max Planck Institute for Biological Cybernetics*

18:30-18:45 FrGT10.5
Predicting Hand Forces from Scalp Electroencephalography during Isometric Force Production and Object Grasping
 Paek, Andrew* *Univ. of Houston*; Gailey, Alycia *Arizona State Univ.*; Parikh, Pranav *Arizona State Univ.*; Santello, Marco *Arizona State Univ.*; Contreras-Vidal, José *Univ. of Houston*

18:45-19:00 FrGT10.6
Gender Effect in Human Brain Responses to Bottom-Up and Top-Down Attention using the EEG 3D-Vector Field Tomography
 Kosmidou, Vasiliki *Information Technologies Institute, CERTH*; Adam, Aikaterini *Information Technologies Institute, CERTH*; Papadaniil, Chrysa* *Aristotle Univ. of Thessaloniki*; Tsolaki, Magda *Aristotle Univ. of Thessaloniki*; Hadjileontiadis, Leontios *Aristotle Univ. of Thessaloniki*; Kompatsiaris, Ioannis (Yannis) *Information Technologies Institute, CERTH*

FrGT11: 17:30-19:00 Amber 8
6.26 Human Performance I (Oral Session)
Chair: Knafitz, Marco *Politecnico di Torino*
Co-Chair: Nguyen, Hung T. *University of Technology, Sydney*

17:30-17:45 FrGT11.1
Deducing the Reachable Space from Fingertip Positions
 Pham, Hai Trieu* *Deakin Univ.*; Pathirana, Pubudu N. *Deakin Univ.*

17:45-18:00 FrGT11.2
Shifting the Balance of Human Standing: Inter-Limb Coordination for the Control of a Robotic Balance Simulation
 Wang, Philip *Univ. of British Columbia*; Forbes, Patrick *Delft Univ. of Technology*; Croft, Elizabeth Anne *Univ. of British Columbia*; Van der Loos, H. F. Machiel *Univ. of British Columbia*; Blouin, Jean-Sébastien* *Univ. of British Columbia*

18:00-18:15 FrGT11.3
The Effect of Behavioral Preferences on Skill Acquisition in Determining Unspecified, Suitable Action Patterns to Control Humanoid Robots
 Takayama, Taiki* *Kanazawa Univ.*; Watanabe, Tetsuyou *Kanazawa Univ.*

18:15-18:30 FrGT11.4
Evaluation of Passive Polarized Stereoscopic 3D Display for Visual and Mental Fatigues
 Amin, Hafeez Ullah *Univ. Teknologi Petronas*; Malik, Aamir Saeed* *Univ. Teknologi Petronas*; Wajid, Mumtaz *Univ. Teknologi Petronas*; Badruddin, Nasreen *Univ. Teknologi Petronas*; Kamel, Nidal *Technical Univ. of Petronas*

18:30-18:45 FrGT11.5
Comparing Features Extractors in EEG-Based Cognitive Fatigue Detection of Demanding Computer Tasks
 Chai, Rifai* *Univ. of Technology, Sydney*; Smith, Mitchell Robert *Univ. of Technology, Sydney*; Nguyen, Tuan Nghia *Univ. of Technology, Sydney*; Ling, Steve *Univ. of Technology Sydney*; Coutts, Aaron James *Univ. of Technology, Sydney (UTS)*; Nguyen, Hung T. *Univ. of Technology, Sydney*

18:45-19:00 FrGT11.6
Dependence of Gait Parameters on Height in Typically Developing Children
 Agostini, Valentina* *Politecnico di Torino*; Nascimbeni, Alberto *Rehabilitation Unit, S. Croce Hospital, A.S.L. TO5, Moncalieri* (; Di Nardo, Francesco *Polytechnic Univ. of Marche*; Fioretti, Sandro *Univ. Politecnica delle Marche*; Burattini, Laura *Univ. Politecnica delle Marche*; Knafitz, Marco *Politecnico di Torino*

FrGT12: 17:30-19:00 Suite 5
3.13 Physiological Monitoring I (Oral Session)
Chair: Leonhardt, Steffen *RWTH Aachen University*
Co-Chair: Ferrario, Manuela *Politecnico di Milano*

17:30-17:45 FrGT12.1
Estimation of Physiological Sub-Millimeter Displacement with CW Doppler Radar
 Xu, Jia *Univ. of Hawaii at Manoa*; Gao, Xiaomeng *Univ. of Hawaii at Manoa*; Padasdao, Bryson* *Univ. of Hawaii at Manoa*; Boric-Lubecke, Olga *Univ. of Hawaii Manoa*

17:45-18:00 FrGT12.2
Sleep Stage Classification by Body Movement Index and Respiratory Interval Indices using Multiple Radar Sensors
 Kagawa, Masayuki* *Tokyo Metropolitan Univ.*; Noriyuki, Sasaki *Tokyo Metropolitan Univ.*; Suzumura, Kazuki *Tokyo Metropolitan Univ.*; Matsui, Takemi *Tokyo Metropolitan Univ.*

- 18:00-18:15 FrGT12.3
Distributed Pressure Sensors for a Urethral Catheter
 Ahmadi, Mahdi *Univ. of Minnesota*; Rajamani, Rajesh* *Univ. of Minnesota*; Timm, Gerald W. *Univ. of Minnesota*; Sezen, A. Serdar *St. Cloud State Univ.*
- 18:15-18:30 FrGT12.4
Capacitive ECG Recording and Beat-to-Beat Interval Estimation after Major Cardiac Event
 Leicht, Lennart* *RWTH Aachen Univ.*; Skobel, Erik *Rosenquelle Clinic*; Mathissen, Marcel *Ford Motor Company*; Leonhardt, Steffen *RWTH Aachen Univ.*; Weyer, Sören *RWTH Aachen*; Wartzek, Tobias *RWTH Aachen, Chair of Medical Information Technology*; Reith, Sebastian *Dept. of Cardiology/ Medical Clinic I, Univ. Hospital*; Möhler, Werner *Sachverständigenbüro Dr. Möhler & Görtz / IKA, RWTH Aachen Univ.*; Teichmann, Daniel *RWTH Aachen Univ.*
- 18:30-18:45 FrGT12.5
A Breath Sampling System Assessing the Influence of Respiratory Rate on Exhaled Breath Composition
 Lomonaco, Tommaso *Univ. of Pisa, Dept. of Chemistry and Industrial Chemi*; Salvo, Pietro* *Univ. of Pisa*; Ghimenti, Silvia *Univ. of Pisa, Dept. of Chemistry and Industrial Chemi*; Biagini, Denise *Univ. of Pisa, Dept. of Chemistry and Industrial Chemi*; Bellagambi, Francesca *Univ. of Pisa, Dept. of Chemistry and Industrial Chemi*; Fuoco, Roger *Univ. of Pisa, Dept. of Chemistry and Industrial Chemi*; Di Francesco, Fabio *Univ. of Pisa*
- 18:45-19:00 FrGT12.6
Noninvasive Ambulatory Measurement System of Cardiac Activity
 Pino, Esteban J* *Univ. de Concepcion*; Chávez, Javier A. P. *Univ. de Concepción*; Aqueveque, Pablo *Univ. of Concepcion*
- FrGT15: 17:30-19:00 White 1
12.3 Technologies for Promoting Health and Wellbeing
 (Oral Session)
Chair: Pavel, Misha *Northeastern University*
Co-Chair: Similä, Heidi *VTT Tech. Research Centre of Finland Ltd*
- 17:30-17:45 FrGT15.1
Collecting a Citizen's Digital Footprint for Health Data Mining
 Gencoglu, Oguzhan* *Tampere Univ. of Technology*; Similä, Heidi *VTT Technical Research Centre of Finland Ltd*; Honko, Harri *Tampere Univ. of Technology*; Isomursu, Minna *Univ. of Oulu*
- 17:45-18:00 FrGT15.2
Pattern of Active and Inactive Sequences of Diabetes Self-Monitoring in Mobile Phone and Paper Diary Users
 Padhye, Nikhil* *Univ of Texas Health Science Center*; Wang, Jing *The Univ. of Texas Health Science Center at Houston*
- 18:00-18:15 FrGT15.3
Textual Summarization of Events Leading to Health Alerts
 Jain, Akshay *Univ. of Missouri-Columbia*; Keller, James M* *Univ. of Missouri*
- 18:15-18:30 FrGT15.4
The Shape of Health: A Comparison of Five Alternative Ways of Visualizing Personal Health and Wellbeing
 Ledesma, Andres* *Tampere Univ. of Technology*; Nieminen, Hannu *Tampere Univ. of Technology*; Valve, Päivi *Marianna Tampere Univ. of Technology, Univ. of Tampere*; Ermes, Miikka *VTT Technical Research Centre*; Pavel, Misha *Northeastern Univ.*; Jimison, Holly *Northeastern Univ.*
- 18:30-18:45 FrGT15.5
Predicting Energy Expenditure from Photo-Plethysmographic Measurements of Heart Rate under Beta Blocker Therapy: Data Driven Personalization Strategies based on Mixed Models
 Bonomi, Alberto* *Philips Research*; Goldenberg, Sharon *Philips Research*; Papini, Gabriele *Philips Research*; Kraal, Jos *Univ. of Amsterdam*; Stut, Wim *Philips Research*; Sartor, Francesco *Philips Research*; Kemps, Harel *Mxima Medical Center*
- 18:45-19:00 FrGT15.6
Experimental Evaluation of a Smartphone based Step Length Estimation
 Pepa, Lucia* *Univ. Politecnica delle Marche-Dii*; Verdini, Federica *Univ. Politecnica delle Marche*; Spalazzi, Luca *Univ. Politecnica delle Marche*
- FrGT16: 17:30-19:00 White 2
4.9 Biomedical Data-Driven Modeling (Invited Session)
Chair: Seker, Huseyin *The University of Northumbria at Newcastle*
Co-Chair: Chrysostomou, Charalambos *University of Leicester*
- 17:30-17:45 FrGT16.1
The Quantitative Prediction of HLA-B2705 Peptide Binding Affinities using Support Vector Regression to Gain Insights into Its Role for the Spondyloarthropathies
 Uslan, Volkan *De Montfort Univ.*; Seker, Huseyin* *The Univ. of Northumbria at Newcastle*
- 17:45-18:00 FrGT16.2
OmicsConnect Toolbox: A Set of Tools for Management and Visualisation of Complex Omics Data
 Chrysostomou, Charalambos* *Univ. of Leicester*; Brookes, Anthony *Univ. of Leicester*
- 18:00-18:15 FrGT16.3
Extension to Distributed Annotation System: Summary and Summaryplot Commands
 Chrysostomou, Charalambos* *Univ. of Leicester*; Brookes, Anthony *Univ. of Leicester*
- 18:15-18:30 FrGT16.4
Metabolomic Pathway Visualization Tool Outsourcing Editing Function
 Sugimoto, Masahiro* *Keio Univ.*
- 18:30-18:45 FrGT16.5
A Bayesian Network-Based Approach for Discovering Oral Cancer Candidate Biomarkers
 Kourou, Konstantina *Unit of Biological Applications and Technology, Univ. of Io*; Exarchos, Konstantinos *Univ. of Ioannina*; Papaloukas, Costas *Univ. of Ioannina*; Fotiadis, Dimitrios I.* *Univ. of Ioannina*
- 18:45-19:00 FrGT16.6
Dynamic Partial Reconfiguration Implementation of the SVM/KNN Multi-Classifer on FPGA for Bioinformatics Application
 Hussain, Hanaa* *The Public Authority of Applied Education and Training*; Benkrud, Khaled *Univ. of Edinburgh*; Seker, Huseyin *The Univ. of Northumbria at Newcastle*
- FrGT17: 17:30-19:00 Space 1
1.35 Biomedical Signal Classification VI: Sleep Apnea Studies
 (Oral Session)
Chair: de Chazal, Philip *University of Sydney*
Co-Chair: Zigel, Yaniv *Ben-Gurion University of the Negev*
- 17:30-17:45 FrGT17.1
An ECG Oximetry System for Identifying Obstructive and Central Apnoea Events
 de Chazal, Philip* *Univ. of Sydney*; Sadr, Nadi *Univ. of Sydney*; Jayawardhana, Madhuka *Univ. of Sydney*
- 17:45-18:00 FrGT17.2
Sleep Apnoea Episodes Recognition by a Committee of Elm Classifiers from ECG Signal
 Sadr, Nadi* *Univ. of Sydney*; de Chazal, Philip *Univ. of Sydney*; van Schaik, André *The Univ. of Sydney*; Breen, Paul *Univ. of Western Sydney*
- 18:00-18:15 FrGT17.3
Sleep Apnea Detection using Time-Delayed Heart Rate Variability
 Nano, Marina-Marina *Delft Univ. of Technology*; Long, Xi* *Eindhoven Univ. of Technology and Philips Research*; Werth, Jan *Philips Research*; Aarts, Ronald M. *Philips*; Heusdens, Richard *Delft Univ. of Technology*

- 18:15-18:30 FrGT17.4
A Gender-Aware Framework for the Daytime Detection of Obstructive Sleep Apnea
 Samy, Lauren* *Univ. of California, Los Angeles*; Macey, Paul M. *Univ. of California, Los Angeles*; Sarrafzadeh, Majid *Univ. of California Los Angeles*
- 18:30-18:45 FrGT17.5
Breath-By-Breath Detection of Apneic Events for OSA Severity Estimation using Non-Contact Audio Recordings
 Rosenwein, Tal *Dept. of Biomedical Engineering, Ben-Gurion Univ. of t*; Dafna, Eliran *Ben-Gurion Univ. of the Negev*; Tarasiuk, Ariel *Ben-Gurion Univ.*; Zigel, Yaniv* *Ben-Gurion Univ. of the Negev*
- 18:45-19:00 FrGT17.6
Pulse Oximetry Recorded from the Phone Oximeter for Detection of Obstructive Sleep Apnea Events with and without Oxygen Desaturation in Children
 Garde, Ainara* *Univ. of British Columbia*; Kheirkhah Dehkordi, Parastoo *Univ. of British Columbia*; Wensley, David *BC Children's Hospital*; Ansermino, J. Mark *British Columbia's Children's Hospital*; Dumont, Guy *Univ. of British Columbia*
- FrGT18: 17:30-19:00 Space 2
1.36 Nonlinear Analysis of Cardiovascular Signals (Oral Session)
 Chair: Jané, Raimon *Institut de Bioenginyeria de Catalunya (IBEC)*
 Co-Chair: Kasprovicz, Magdalena *Wroclaw University of Technology*
- 17:30-17:45 FrGT18.1
Blood Pressure and Pulse Interval Coupling: A Copula Approach
 Bajic, Dragana* *Univ. of Novi Sad*; Loncar-Turukalo, Tatjana *Univ. of Novi Sad*; Skoric, Tamara *Univ. of Novi Sad, Dept. of Communications and Signal*; Japundzic-Zigon, Nina *Univ. of Belgrade*
- 17:45-18:00 FrGT18.2
Complexity of Cerebral Blood Flow Velocity and Arterial Blood Pressure in Subarachnoid Hemorrhage using Time-Frequency Analysis
 Placek, Michal Marcin* *Wroclaw Univ. of Technology*; Wachel, Pawel *Wroclaw Univ. of Technology, Poland*; Czosnyka, Marek *Univ. of Cambridge*; Soehle, Martin *Dept. of Anaesthesiology and Intensive Care Medicine, Univ.*; Smielewski, Peter *Dept. of Clinical Neurosciences, Univ. of Cambridge*; Kasprovicz, Magdalena *Wroclaw Univ. of Technology*
- 18:00-18:15 FrGT18.3
Recurrence Quantification Analysis Applied to Spatiotemporal Pattern Analysis in High-Density Mapping of Human Atrial Fibrillation
 Zeemering, Stef* *Maastricht Univ.*; Bonizzi, Pietro *Maastricht Univ.*; Maesen, Bart *Maastricht Univ. Hospital*; Peeters, Ralf *Maastricht Univ.*; Schotten, Ulrich *Maastricht Univ.*
- 18:15-18:30 FrGT18.4
Cardiorespiratory Phase Synchronization in OSA Subjects during Wake and Sleep States
 Solà-Soler, Jordi* *Univ. Politècnica de Catalunya*; Giraldo, Beatriz *Univ. Politècnica de Catalunya*; Fiz Fernandez, José Antonio *Navarra Hospital*; Jané, Raimon *Institute de Bioenginyeria de Catalunya (IBEC)*
- 18:30-18:45 FrGT18.5
Dynamic Response of Cardiac Autonomic Nervous System Activity to Habitual Exercise during Gradual Variation of Breathing Frequency
 Nakamura, Hideo* *Osaka Electro-Communication Univ*
- FrGT19: 17:30-19:00 Space 3
2.27 Large Data in Image Analysis (Oral Session)
- 17:30-17:45 FrGT19.1
Large Scale Fusion of Brain Imaging Modalities and Features using Markov-Style Dynamics in a Feature Meta-Space
 Miller, Robyn* *The Mind Research Network*; Vergara, Victor Manuel *The Mind Research Network*; Calhoun, Vince *The Mind Research Network/Univ. of New Mexico*
- 17:45-18:00 FrGT19.2
High-Sensitive and High-Efficient Biochemical Analysis Method using a Bionic Electronic Eye in Combination with a Smartphone-Based Colorimetric Reader System
 Su, Kaiqi *Zhejiang Univ.*; Quchao Zou, Cnqczou *Zhejiang Univ.*; Hu, Ning *Zhejiang Univ.*; Wang, Ping* *Zhejiang Univ.*
- 18:00-18:15 FrGT19.3
Computer-Based Automatic Identification of Neurons in Gigavoxel-Sized 3D Human Brain Images
 Soda, Paolo* *Univ. Campus Bio-Medico*; Acciai, Ludovica *Univ. Campus Bio-Medico di Roma*; Cordelli, Ermanno *Univ. Campus Bio-Medico di Roma*; Costantini, Irene *LENS - Univ. of Florence*; Sacconi, Leonardo *National Institute of Optics*; Pavone, Francesco *Saverio LENS - Univ. of Florence*; Conti, Valerio *Pediatric Neurology and Neurogenetics Unit and Laboratories, Dep*; Guerrini, Renzo *Pediatric Neurology and Neurogenetics Unit and Laboratories, Dep*; Frascioni, Paolo *Univ. degli Studi di Firenze*; Iannello, Giulio *Univ. Campus Bio-Medico di Roma*
- 18:15-18:30 FrGT19.4
An Automated and High-Throughput Photomotor Response Platform for Chemical Screens
 Marcato, Daniel* *Karlsruhe Institute of Technology*; Alshut, Rüdiger *Karlsruhe Institute of Technology*; Helmut, Breitwieser *Karlsruhe Institute of Technology*; Mikut, Ralf *Karlsruhe Institute of Technology*; Strähle, Uwe *Karlsruhe Institute of Technology*; Pylatiuk, Christian *Karlsruhe Institute of Technology*; Peravali, Ravindra *Karlsruhe Institute of Technology*
- 18:30-18:45 FrGT19.5
High-Throughput Analysis of Tissue-Based Biomarkers in Digital Pathology
 Van Eycke, Yves-Rémi *CMMI, Univ. Libre de Bruxelles*; Debeir, Olivier *Univ. Libre de Bruxelles*; Verset, Laurine *Erasmus Hospital, Univ. Libre de Bruxelles*; Demetter, Pieter *Erasmus Hospital, Univ. Libre de Bruxelles*; Salmon, Isabelle *Erasmus Hospital, Univ. Libre de Bruxelles*; Decaestecker, Christine* *Univ. Libre de Bruxelles*
- 18:45-19:00 FrGT19.6
Leveraging the Crowd for Annotation of Retinal Images
 Leifman, George* *MIT*; Swedish, Tristan *MIT*; Roesch, Karin *MIT*; Raskar, Ramesh *MIT*
- FrGT20: 17:30-19:00 Space 4
10.9 Wearable and Mobile Technologies for Active Living and Healthy Ageing: From Concerns and Pilots to Best Practice and Evidence (Invited Session)
 Chair: Amor, James *University of Warwick*
 Co-Chair: James, Christopher *University of Warwick*
- 17:30-17:45 FrGT20.1
Wearable Technology and ECG Processing for Fall Risk Assessment, Prevention and Detection
 Melillo, Paolo* *Univ. of Bologna*; Castaldo, Rossana *Univ. of Warwick*; Sannino, Giovanna *Institute of High Performance Computing and Networking (ICAR)-CN*; Orrico, Ada *Second Univ. of Naples*; De Pietro, Giuseppe *Institute of High Performance Computing and Networking (ICAR)-CN*; Pecchia, Leandro *Univ. of Warwick*
- 17:45-18:00 FrGT20.2
Maintaining Patients' Social Contacts through Displaying Nonverbal Awareness Information on Mobile Devices
 Ruschin, Detlef* *Fraunhofer Heinrich Hertz Institute*
- 18:00-18:15 FrGT20.3
Wearable Devices from Healthy Lifestyle to Active Ageing
 Lewy, Hadas* *Maccabi Health Care Services*
- 18:15-18:30 FrGT20.4
Setting the Scene: Mobile and Wearable Technology for Managing Healthcare and Wellbeing
 Amor, J.* *Univ. of Warwick*; James, C. *Univ. of Warwick*

18:30-18:45 FrGT20.5

Building Neuroscientific Evidence and Creating Best Practices for Active and Healthy Aging through Ubiquitous Exergaming and Living Labs

Bamidis, Panagiotis* *Aristotle Univ.*

18:45-19:00 FrGT20.6

Smartphone-Based System to Improve Transportation Access for the Cognitively Impaired

Anderson, Shane *Koronis Biomedical Technologies*;
Riehle, Timothy H *Koronis Biomed. Technologies Corp.*;
Lichter, Patrick *Koronis Biomedical Technologies*;
Brown, Allen *Mayo Clinic, Rochester MN*;
Panescu, Dorin* *Advanced Cardiac Therapeutics*

Saturday, 29 August 2015

SaAT1: 08:30-10:00 Brown 1
8.12 New Technologies and Methodologies in Medical Robotics and Biomechanics (Oral Session)
Chair: Pedotti, Antonio *Politecnico di Milano*
Co-Chair: Fioretti, Sandro *Università Politecnica delle Marche*

08:30-08:45 SaAT1.1
Novel Method to Form Adaptive Internal Impedance Profiles in Walkers
Escudero Morland, Maximiliano Francisco* *King's College London*; Althoefer, Kaspar *King's College London*; Nanayakkara, Thirishantha *King's College London*

08:45-09:00 SaAT1.2
A Novel Approach to Low Cost, Wide Range Motion Capture System: Validation and Application to Human Behavior Analysis
Enriquez, Guillermo* *Waseda Univ.*; Destephe, Matthieu *Waseda Univ.*; Hashimoto, Shuji *Waseda Univ.*; Takanishi, Atsuo *Waseda Univ.*

09:00-09:15 SaAT1.3
Active Catheter Driven by a Thermo-Hydraulic Actuation
Horovitz, Yonatan* *Tel Aviv Univ.*; Kosa, Gabor *Tel Aviv Univ., School of Mechanical Engineering*

09:15-09:30 SaAT1.4
Toward Hybrid Force/Position Control for the Cerberus Epicardial Robot
Breault, Macauley S. *Muhlenberg College*; Costanza, Adam *Carnegie Mellon Univ., Robotics Institute*; Wood, Nathan *Carnegie Mellon Univ.*; Passineau, Michael J. *Allegheny General Hospital*; Riviere, Cameron N.* *Carnegie Mellon Univ.*

09:30-09:45 SaAT1.5
A Novel Gastroscopy Intervention Mechanism with Circumferentially Pneumatic-Driven Clamping Function
Li, Yanmin *Shenyang Institute of Automation, Chinese Academy of Sciences*; Liu, Hao* *Shenyang Institute of Automation, Chinese Academy of Sciences*; Wang, Hengzhi *Shenyang Institute of Automation, Chinese Academy of Sciences*; Yang, Zhenda *Shenyang Institute of Automation, Chinese Academy of Sciences*; Li, Hongyi *State Key Laboratory of Robotic, Shenyang Institute of Automatio*; Yang, Yunsheng *Chinese PLA General Hospital*

09:45-10:00 SaAT1.6
Characterization of Corneal Indentation Hysteresis
Ko, Match Wai Lun* *Nazarbayev Univ.*; Wei, Dongming *Nazarbayev Univ.*; Leung, Christopher K. S. *Chinese Univ. of Hong Kong*

SaAT2: 08:30-10:00 Brown 2
5.9 Cardio-Respiratory Regulation Modeling (Invited Session)
Chair: Ursino, Mauro *University of Bologna*
Co-Chair: Clark, John W. *Rice University*

08:30-08:45 SaAT2.1
Cardiorespiratory Adaptation to Breath-Holding in Air: Analysis via a Cardiopulmonary Simulation Model
Albanese, Antonio* *Philips Research North America*; Cheng, Limei *Philips Research North America*; Ursino, Mauro *Univ. of Bologna*; Chbat, Nicolas W. *Philips Research North America*

08:45-09:00 SaAT2.2
Modeling of Deep Breath Vasoconstriction Reflex
Chalacheva, Patjanaporn* *Univ. of Southern California*; Khoo, Michael *Univ. of Southern California*

09:00-09:15 SaAT2.3
On the Roles of Vascular Smooth Muscle Contraction in Cerebral Blood Flow Autoregulation – A Modeling Perspective
Yang, Jin* *Chinese Academy of Sciences*; Clark, John W. *Rice Univ.*

09:15-09:30 SaAT2.4
A Simulation Model to Study the Role of the Extracranial Venous Drainage Pathways in Intracranial Hemodynamics
Gadda, Giacomo* *Univ. of Ferrara*; Taibi, Angelo *Univ. of Ferrara*; Sisini, Francesco *Univ. of Ferrara*; Gambaccini, Mauro *Univ. of Ferrara*; Sethi, Sean *MRI Institute of Biomedical Research*; Utriainen, David *The MRI Institute of Biomedical Research*; Haacke, Mark *Wayne State Univ.*; Zamboni, Paolo *Univ. of Ferrara*; Ursino, Mauro *Univ. of Bologna*

09:30-09:45 SaAT2.5
Verification and Validation of Physiology Simulators
van Oostrom, Johannes* *Univ. of Florida*; Wehry, Hillary *Univ. of Pittsburgh*

SaAT3: 08:30-10:00 Brown 3
6.27 Neural Engineering and Neuro-Psychiatric Disorders: Integrated Algorithmic and Hardware Design of a Closed-Loop Brain Stimulation System (Invited Session)
Chair: Barbieri, Riccardo *MGH-Harvard Medical School-MIT*
Co-Chair: Faghieh, Rose T. *MIT*

08:30-08:45 SaAT3.1
Estimating a Dynamic State to Relate Neural Spiking Activity to Behavioral Signals during Cognitive Tasks
Deng, Xinyi* *Boston Univ.*; Faghieh, Rose T. *MIT*; Barbieri, Riccardo *MGH-Harvard Medical School-MIT*; Paulk, Angelique C *Massachusetts General Hospital*; Asaad, Wael F. *Brown Univ.*; Brown, Emery N *MGH-Harvard Medical School-MIT*; Dougherty, Darin *Massachusetts General Hospital*; Widge, Alik *Massachusetts General Hospital*; Eskandar, Emad *Massachusetts General Hospital*; Eden, Uri *Boston Univ.*

08:45-09:00 SaAT3.2
Characterization of Fear Conditioning and Fear Extinction by Analysis of Electrodermal Activity
Faghieh, Rose T.* *MIT*; Stokes, Patrick *Massachusetts General Hospital*; Marin, Marie-France *Massachusetts General Hospital, Harvard Medical School*; Zsido, Rachel *Massachusetts General Hospital*; Zorowitz, Sam *Massachusetts General Hospital*; Rosenbaum, Blake *Massachusetts General Hospital*; Song, Huijin *Harvard Medical School, Massachusetts General Hospital*; Milad, Mohammed *Massachusetts General Hospital, Harvard Medical School*; Dougherty, Darin *Massachusetts General Hospital*; Eskandar, Emad *Massachusetts General Hospital*; Widge, Alik *Massachusetts General Hospital*; Brown, Emery N *MGH-Harvard Medical School-MIT*; Barbieri, Riccardo *MGH-Harvard Medical School-MIT*

09:00-09:15 SaAT3.3
Cognitive State Prediction using an Expectation-Maximization Algorithm Applied to Gamma Distributed Data
Yousefi, Ali* *Massachusetts General Hospital and Harvard Medical School*; Paulk, Angelique C *Massachusetts General Hospital*; Deckersbach, Thilo *Massachusetts General Hospital*; Dougherty, Darin *Massachusetts General Hospital*; Eskandar, Emad *Massachusetts General Hospital*; Widge, Alik *Massachusetts General Hospital*; Eden, Uri *Boston Univ.*

09:15-09:30 SaAT3.4
Package Architecture and Component Design for an Implanted Neural Stimulator with Closed Loop Control
Parks, Philip *Draper Lab*; Bjune, Caroline* *Charles Stark Draper Lab*; Marinis, Thomas *Charles Stark Draper Lab*; Sriram, Tirunelveli *CS Draper Lab*; Dougherty, Darin *Massachusetts General Hospital*; Moran, James *Draper Lab*; Brady, Jeanne *Charles Stark Draper Lab*; Widge, Alik *Massachusetts General Hospital*; Eskandar, Emad *Massachusetts General Hospital*; Wheeler, Jesse *Draper Lab*

09:30-09:45 SaAT3.5
Neural Signal Processing and Closed-Loop Control Algorithm Design for an Implanted Neural Recording and Stimulation System
Hamilton, Lei *Charles Stark Draper Lab*; McConley, Marc *Draper Lab*; Angermueller, Kai *Draper Lab*; Goldberg, David *Draper Lab*; Corba, Massimiliano *Draper Lab*; Kim, Louis *Draper Lab*; Parks, Philip* *Draper Lab*; Chin, Sang *Boston Univ.*; Widge, Alik *Massachusetts General Hospital*; Dougherty, Darin *Massachusetts General Hospital*; Eskandar, Emad *Massachusetts General Hospital*; Moran, James *Draper Lab*

August 29 Saturday

09:45-10:00	SaAT3.6	08:45-09:00	SaAT5.2
An Implantable 64-Channel Neural Interface with Reconfigurable Recording and Stimulation Wheeler, Jesse* <i>Draper Laboratory</i> ; Baldwin, Keith <i>Draper Laboratory</i> ; Kindle, Alex <i>Draper Laboratory</i> ; Guyon, Daniel <i>Draper Laboratory</i> ; Nugent, Brian <i>Draper Laboratory</i> ; Segura, Carlos Alejandro <i>Draper Laboratory</i> ; Rodriguez, John <i>Draper Laboratory</i> ; Czarnecki, Andrew <i>Draper Laboratory</i> ; DiSpirito, Hailey <i>Worcester Polytechnic Institute</i> ; Lachapelle, John <i>Draper Laboratory</i> ; Moran, James <i>Draper Laboratory</i> ; Parks, Philip <i>Draper Laboratory</i> ; Widge, Alik <i>Massachusetts General Hospital</i> ; Dougherty, Darin <i>Massachusetts General Hospital</i> ; Eskandar, Emad <i>Massachusetts General Hospital</i>		Use of Multiscale Entropy to Facilitate Artifact Detection in Electroencephalographic Signals Mariani, Sara* <i>Wyss Institute for Biologically Inspired Engineering at Harvard</i> ; Borges, Ana F. T. <i>Dept. of Integrative Neurophysiology, Center for Neurogenom</i> ; Henriques, Teresa S. <i>Wyss Institute for Biologically Inspired Engineering at Harvard</i> ; Goldberger, Ary L. <i>Wyss Institute for Biologically Inspired Engineering at Harvard</i> ; Costa, Madalena D. <i>Wyss Institute for Biologically Inspired Engineering at Harvard</i>	
SaAT4: 08:30-10:00	Amber 1	09:00-09:15	SaAT5.3
1.37 Parametric Filtering and Estimation (Oral Session) Chair: Seppänen, Tapio <i>University of Oulu</i> Co-Chair: Fasano, Antonio <i>Università Campus Bio-Medico di Roma</i>		Effect of the Average Delay and Mean Connectivity of the Kuramoto Model on the Complexity of the Output Electroencephalograms Escudero, Javier* <i>Univ. of Edinburgh</i> ; Ibáñez-Molina, Antonio <i>Univ. de Jaén</i> ; Iglesias-Parro, Sergio <i>Univ. of Jaén</i>	
08:30-08:45	SaAT4.1	09:15-09:30	SaAT5.4
Fast and Effective Estimation of Narrowband Components for Bioelectrical Signals Fasano, Antonio <i>Univ. Campus Bio-Medico di Roma</i> ; Villani, Valeria* <i>Univ. degli Studi di Modena e Reggio Emilia</i>		Effect of Data Length and Bin Numbers on Distribution Entropy (DistEn) Measurement in Analyzing Healthy Aging Udhayakumar, Radhagayathri <i>Univ. of Melbourne</i> ; Karmakar, Chandan* <i>Deakin Univ.</i> ; Palaniswami, Marimuthu <i>The Univ. of Melbourne</i> ; Li, Peng <i>Shandong Univ.</i>	
08:45-09:00	SaAT4.2	09:30-09:45	SaAT5.5
Semi-Supervised Segmentation of EEG Data in BCI Systems Camilleri, Tracey* <i>Univ. of Malta</i> ; Camilleri, Kenneth Patrick <i>Univ. of Malta</i> ; Fabri, Simon G. <i>Univ. of Malta</i>		Analysis of Biceps Brachii Seng Signal using Multiscale Fuzzy Approximate Entropy Makaram, Navaneethakrishna* <i>Indian Institute of Technology Madras</i> ; Periyamolapalayam Allimuthu, Karthick <i>Indian Institute of Technology Madras</i> ; Ramakrishnan, Swaminathan <i>IIT Madras, India</i>	
09:00-09:15	SaAT4.3	09:45-10:00	SaAT5.6
From Molecular Model to Sparse Representation of Chromatographic Signals with an Unknown Number of Peaks Bertholon, François <i>Univ. Grenoble Alpes, CEA, Leti, MINATEC Campus</i> ; Harant, Olivier <i>Univ. Grenoble Alpes, CEA, Leti, MINATEC Campus</i> ; Foan, Louise <i>CEA</i> ; Vignoud, Séverine <i>CEA</i> ; Jutten, Christian <i>Univ. of Grenoble</i> ; Grangeat, Pierre* <i>Univ. Grenoble, Alpes, CEA, LETI, MINATEC CAMPUS</i>		Instantaneous Transfer Entropy for the Study of Cardio-Respiratory Dynamics Valenza, Gaetano* <i>Univ. of Pisa-MGH-Harvard Medical School</i> ; Faes, Luca <i>Univ. of Trento</i> ; Citi, Luca <i>Univ. of Essex</i> ; Orini, Michele <i>Univ. College London</i> ; Barbieri, Riccardo <i>MGH-Harvard Medical School-MIT</i>	
09:15-09:30	SaAT4.4	SaAT6: 08:30-10:00	Amber 3
A Parametric Probabilistic Context-Free Grammar for Food Intake Analysis based on Continuous Meal Weight Measurements Papapanagiotou, Vasileios* <i>Aristotle Univ. of Thessaloniki</i> ; Diou, Christos <i>Aristotle Univ. of Thessaloniki</i> ; Langlet, Billy <i>Karolinska Institute, NVS, Division of Applied Neuroendocrinology</i> ; Ioakimidis, Ioannis <i>Karolinska Institute, NVS, Division of Applied Neuroendocrinology</i> ; Delopoulos, Anastasios <i>Aristotle Univ. of Thessaloniki</i>		2.28 X-Ray and CT Imaging: Applications (Oral Session)	
09:30-09:45	SaAT4.5	08:30-08:45	SaAT6.1
Accurate Measurement of Respiratory Airflow Waveforms using Depth Data Seppänen, Tiina Maarit* <i>Univ. of Oulu</i> ; Kananen, Janne <i>Univ. of Oulu</i> ; Nojonen, Kai <i>Univ. of Oulu</i> ; Alho, Olli-Pekka <i>Univ. of Oulu</i> ; Seppänen, Tapio <i>Univ. of Oulu</i>		Circular Particle Detection using Sectorized Ring Mask for Synchrotron PCXI Images Jung, Hye-Won* <i>UNISA</i> ; Lee, Ivan <i>The Univ. of South Australia</i> ; Lee, Sang-Heon <i>The Univ. of South Australia</i>	
09:45-10:00	SaAT4.6	08:45-09:00	SaAT6.2
A Robust Heartbeat Detector not Depending on ECG Sampling Rate Augustyniak, Piotr* <i>AGH Univ. of Science and Tech</i>		Feasibility Assessment of CT-Based Thermometry for Temperature Monitoring during Thermal Procedure: Influence of ROI Size and Scan Setting on Metrological Properties Scheda, Emiliano <i>Univ. of Rome Campus Bio-Medico</i> ; Fani, Federica <i>Univ. Bampus Bio-Medico di Roma</i> ; Saccomandi, Paola <i>Univ. Campus Bio-Medico of Rome</i> ; Massaroni, Carlo <i>Univ. Campus Bio-Medico di Roma</i> ; Frauenfelder, Giulia* <i>Univ. Campus Bio-Medico di Roma</i> ; Giurazza, Francesco <i>Univ. Campus Bio-Medico di Roma</i> ; Silvestri, Sergio <i>Univ. Campus Bio-Medico di Roma</i>	
SaAT5: 08:30-10:00	Amber 2	09:00-09:15	SaAT6.3
1.38 Entropy Measurements (Oral Session) Co-Chair: Citi, Luca <i>University of Essex</i>		Mooney-Rivlin Biomechanical Modeling of Lung with Inhomogeneous Material Nasehi Tehrani, Joubin* <i>Univ. of Texas Southwestern Medical Center</i> ; Wang, J. <i>Univ. of Texas Southwestern Medical Center</i>	
08:30-08:45	SaAT5.1	09:15-09:30	SaAT6.4
Transfer Entropy Analysis of Maternal and Fetal Heart Rate Coupling Marzbanrad, Faezeh* <i>The Univ. of Melbourne</i> ; Kimura, Yoshitaka <i>Tohoku Univ</i> ; Endo, Miyuki <i>Tohoku Univ.</i> ; Palaniswami, Marimuthu <i>The Univ. of Melbourne</i> ; Khandoker, Ahsan Habib <i>Khalifa Univ. of Science, Technology and Research</i>		Robust Catheter Identification and Tracking in X-Ray Angiographic Sequences Fazlali, Hamidreza <i>Isfahan Univ. of Technology</i> ; Karimi, Nader <i>Isfahan Univ. of Technology</i> ; Soroushmehr, S.M.Reza* <i>Univ. of Michigan, Ann Arbor</i> ; Samavi, Shadrokh <i>McMaster Univ.</i> ; Derksen, Harm <i>Univ. of Michigan, Ann Arbor</i> ; Najarian, Kayvan <i>Univ. of Michigan - Ann Arbor</i>	

09:30-09:45 SaAT6.5
Cone-Beam Computed Tomography Contrast Validation of an Artificial Periodontal Phantom for use in Endodontics
 Michetti, Jérôme* *Univ. of Toulouse*; Basarab, Adrian *Univ. de Toulouse*; Tran, Michel *Univ. of Toulouse*; Diemer, Franck *Clément Ader Institute, Univ. of Toulouse*; Kouamé, Denis *Univ. de Toulouse, IRIT UMR CNRS 5505*

09:45-10:00 SaAT6.6
3D Riesz-Wavelet based Covariance Descriptors for Texture Classification of Lung Nodule Tissue in CT
 Cirujeda, Pol* *Univ. Pompeu Fabra*; Müller, Henning *Univ. of Applied Sciences Western Switzerland (HES-SO)*; Rubin, Daniel *Stanford Univ.*; Aguilera, Todd *Dept. of Radiology, Stanford Univ. School of Medicine*; Loo, Billy W *Stanford Univ. School of Medicine*; Diehn, Maximilian *Stanford Univ. School of Medicine*; Binefa, Xavier *Univ. Pompeu Fabra*; Depeursinge, Adrien *Univ. of Applied Sciences Western Switzerland Sierre (HES-S)*

SaAT7: 08:30-10:00 Amber 4
2.29 MR Analysis and Quantification (Oral Session)
Chair: Kozlov, Mikhail *Max Planck Institute for Human Cognitive and Brain Sciences*
Co-Chair: Landini, Luigi *University of Pisa*

08:30-08:45 SaAT7.1
Comparative Analysis of Different Hip Implants within a Realistic Human Model Located Inside a 1.5T MRI Whole Body RF Coil
 Kozlov, Mikhail* *Max Planck Institute for Human Cognitive and Brain Sciences*; Noetscher, Gregory *Worcester Polytechnic Institute*; Nazarian, Ara *Beth Israel Deaconess Medical Center*; Makarov, Sergey *Electrical and Computer Engineering, Worcester Polytechnic Inst*

08:45-09:00 SaAT7.2
Quantification of Errors in Cerebral Blood Flow Measurements Due to Dispersion in Arterial Spin Labelling
 Mehta, Rutej* *Univ. of Oxford*;
 Chappell, Michael *Univ. of Oxford*

09:00-09:15 SaAT7.3
Tag Removal in Cardiac Tagged MRI Images using Coupled Dictionary Learning
 Makram, Abram *Helwan Univ.*; Rushdi, Muhammad* *Cairo Univ.*; Khalifa, Ayman *Helwan Univ.*; El-Wakad, Mohamed *Tarek Faculty of Engineering, Helwan Univ.*

09:15-09:30 SaAT7.4
Mapping of Arterial Location for the Design of Automated Identification and Analysis Algorithms in Whole Body MRA
 McCormick, Lynne* *Univ. of Dundee*; Weir-McCall, Jonathan *Univ. of Dundee*; Gandy, Stephen *NHS Tayside*; White, Richard *Univ. Hospital of Wales*; McNeil, Andrew *Univ. of Dundee*; Trucco, Emanuele *Univ. of Dundee*; Houston, J Graeme *Univ. of Dundee*

09:30-09:45 SaAT7.5
Investigation of the Performance of Variable-Density Z-Spectrum Acquisition Scheme in MR Chemical Exchange Saturation Transfer Effect Quantification
 Yang, Shasha *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*; Wu, Yin* *Shenzhen Institutes of Advanced Technology, Chinese Academy of S*

09:45-10:00 SaAT7.6
Automatic Cerebral Microbleeds Detection from MR Images via Independent Subspace Analysis based Hierarchical Features
 Dou, Qi* *The Chinese Univ. of Hong Kong*; Chen, Hao *The Chinese Univ. of Hong Kong*; Yu, Lequan *Zhejiang Univ.*; Shi, Lin *The Chinese Univ. of Hong Kong*; Wang, Defeng *The Chinese Univ. of Hong Kong*; Mok, Vincent CT *The Chinese Univ. of Hong Kong*; Heng, Pheng Ann *The Chinese Univ. of Hong Kong*

SaAT8: 08:30-10:00 Amber 5
3.14 Optical and Photonic Sensors and Systems I (Oral Session)

08:30-08:45 SaAT8.1
2-DOF Auto-Calibration for a 3D Endoscope System based on Active Stereo
 Furukawa, Ryo* *Hiroshima City Univ.*; Masutani, Ryunosuke *Hiroshima City Univ.*; Miyazaki, Daisuke *Hiroshima City Univ.*; Baba, Masashi *Hiroshima City Univ.*; Hiura, Shinsaku *Hiroshima City Univ.*; Visentini-Scarzanella, Marco *Kagoshima Univ.*; Morinaga, Hiroki *Kagoshima Univ.*; Kawasaki, Hiroshi *Kagoshima Univ.*; Sagawa, Ryusuke *National Institute of Advanced Industrial Science and Technology*

08:45-09:00 SaAT8.2
A Fiberoptic Sensor for Tissue Carbon Dioxide Monitoring
 Davenport, John* *City Univ., London*; Hickey, Michelle *City Univ.*; Phillips, Justin *City Univ. London*; Kyriacou, Panayiotis *City Univ. London*

09:00-09:15 SaAT8.3
Development of NIRS Probe based on LED Sensing That Enables Multimodal Integration
 Esaki, Shun* *Shizuoka Univ.*; Yamakawa, Toshitaka *Kumamoto Univ.*; Niwayama, Masatsugu *Shizuoka Univ.*

09:15-09:30 SaAT8.4
Real-Time Biochemical Sensor based on Raman Scattering with CMOS Contact Imaging
 Cao, Muyun *Univ. of Calgary*; Li, Yuhua *Univ. of Calgary*; Yadid-Pecht, Orly* *Univ. of Calgary*

09:30-09:45 SaAT8.5
Investigation of Photoplethysmography and Arterial Blood Oxygen Saturation from the Ear-Canal and the Finger under Conditions of Artificially Induced Hypothermia
 Budidha, Karthik* *City Univ.*; Kyriacou, Panayiotis *City Univ. London*

SaAT9: 08:30-10:00 Amber 6
3.15 Bio-Sensing Techniques (Oral Session)
Chair: Bonfiglio, Annalisa *University of Cagliari*
Co-Chair: Mencias, Arianna *Scuola Superiore Sant'Anna*

08:30-08:45 SaAT9.1
Organic FET-Based DNA Hybridization Sensor with Sub-Picomolar Sensitivity
 Lai, Stefano *Univ. of Cagliari*; Barbaro, Massimo *Univ. of Cagliari*; Bonfiglio, Annalisa* *Univ. of Cagliari*

08:45-09:00 SaAT9.2
An Electrochemical Biosensor based on Gold Microspheres Andanoporos Gold for Real-Time Detection of Superoxide Anion in Skeletal Muscle Tissue
 Banan Sadeghian, Ramin* *Tohoku Univ.*; Ostrovidov, Serge *WPI-AIMR, Tohoku Univ.*; Salehi, Sahar *Tohoku Univ.*; Han, Jihui *WPI Advanced Institute for Materials Research, Tohoku Univ.*; Chen, Mingwei *Tohoku Univ.*; Khademhosseini, Ali *Harvard-MIT*

09:00-09:15 SaAT9.3
Measuring the Mechanical Efficiency of a Working Cardiac Muscle Sample at Body Temperature using a Flow-through Calorimeter
 Taberner, Andrew* *The Univ. of Auckland*; Johnston, Callum *Michael The Univ. of Auckland*; Pham, Toan *Univ. of Auckland*; Han, June-Chiew *The Univ. of Auckland*; Ruddy, Bryan *Univ. of Auckland*; Loiselle, Denis *The Univ. of Auckland*; Nielsen, Poul *The Univ. of Auckland*

09:15-09:30 SaAT9.4
A Magnetic Force Sensor on a Catheter Tip for Minimally Invasive Surgery
 Chatzipirpiridis, George* *ETH Zürich*; Erne, Pascal *ETH Zurich*; Ergeneman, Olgac *ETH Zurich*; Pané Vidal, Salvador *ETH Zürich*; Nelson, Bradley *ETH Zurich*

09:15-09:30 SaAT15.4
Passive Wireless Sensor Systems Can Recognize Activities of Daily Living
 Urwyler, Prabhitha* *Univ. of Bern*; Stucki, Reto *Univ. of Bern, Gerontechnology and Rehabilitation Group*; Müri, René *Gerontechnology and Rehabilitation Group, Univ. Hospital of Mosimann, Urs Peter Gerontechnology and Rehabilitation Group, Univ. Hospital of, Nef, Tobias Gerontechnology and Rehabilitation, ARTORG Center for Biomedical*

09:30-09:45 SaAT15.5
Augmenting White Cane Reliability using Smart Glove for Visually Impaired People
 Bernieri, Giuseppe *Univ. Roma Tre*; Faramondi, Luca *Univ. Roma Tre*; Pascucci, Federica* *Univ. Roma Tre*

09:45-10:00 SaAT15.6
Reduction in Time-to-Sleep through EEG based Brain State Detection and Audio Stimulation
 Zhang, Zhuo* *A*STAR*; Guan, Cuntai *Institute for Infocomm Research*; Chan, Ti Eu *Institute For Infocomm Research (A*STAR)*; Yu, Juanhong *Institute for Infocomm Research, Agency for Science, Tech. and*; Phyo Wai, Aung Aung *Institute for Infocomm Research*; Wang, Chuanchu *Institute for Infocomm Research*; Zhang, Haihong *Institute for Infocomm Research*

SaAT16: 08:30-10:00 White 2
4.10 Models of Physiological Systems (Oral Session)
Chair: Cheng, Leo K *The University of Auckland*
Co-Chair: Signorini, Maria G. *Politecnico di Milano*

08:30-08:45 SaAT16.1
Computational Modelling of Fatty Acid Transport in the Human Placenta
 Perazzolo, Simone* *Univ. of Southampton*; Hirschmugl, Birgit *Medical Univ. of Graz*; Wadsack, Christian *Medical Univ. of Graz*; Desoye, Gernot *Medical Univ. of Graz*; Lewis, Rohan B. *Univ. of Southampton*; Sengers, Bram G. *Univ. of Southampton*

08:45-09:00 SaAT16.2
Mixed Model of Dietary Fat Effect on Postprandial Glucose-Insulin Metabolism from Carbohydrates in Type 1 Diabetes
 Yamamoto Noguchi, Claudia Cecilia* *Kyoto Univ.*; Kunikane, Noriaki *Kyoto Univ.*; Hashimoto, Shogo *Kyoto Univ.*; Furutani, Eiko *Kyoto Univ.*

09:00-09:15 SaAT16.3
Tissue Specific Simulations of Interstitial Cells of Cajal Networks using Unstructured Meshes
 Sathar, Shameer* *Univ. of Auckland*; Trew, Mark L. *Univ. of Auckland*; Cheng, Leo K *The Univ. of Auckland*

09:15-09:30 SaAT16.4
Mathematical Analysis of Dermal Absorption Rate of Heavy Metals
 Batkin, Izmail *Ottawa Univ.*; Bolic, Miodrag* *Univ. of Ottawa*

09:30-09:45 SaAT16.5
Characterization of Parafoveal Hemodynamics Associated with Diabetic Retinopathy with Adaptive Optics Scanning Laser Ophthalmoscopy and Computational Fluid Dynamics
 Bernabeu, Miguel O.* *The Univ. of Edinburgh*; Lu, Yang *Beetham Eye Institute, Joslin Diabetes Center, Boston, MA*; Lammer, Jan *Medical Univ. of Vienna, Austria*; Aiello, Lloyd P. *Beetham Eye Institute, Joslin Diabetes Center, Boston, MA*; Peter, Coveney *Univ. College London*; Sun, Jennifer K. *Beetham Eye Institute, Joslin Diabetes Center, Boston, MA*

09:45-10:00 SaAT16.6
Spatiotemporal Dynamics of Synaptic Drive in Urinary Bladder Syncytium: A Computational Investigation
 Sengupta, Nilapratim* *Indian Institute of Technology Bombay*; Brain, Keith L. *Univ. of Birmingham*; Manchanda, Rohit *IIT Bombay*

SaAT17: 08:30-10:00 Space 1
1.39 Signal Processing for Wearable Systems (Oral Session)
Co-Chair: Korhonen, Ilkka *Tampere University of Technology*

08:30-08:45 SaAT17.1
Robust Heart Rate Estimation using Wrist-Based PPG Signals in the Presence of Intense Physical Activities
 Zong, Chengzhi* *Univ. of Texas at Dallas*; Jafari, Roozbeh *Univ. of Texas at Dallas*

08:45-09:00 SaAT17.2
Accurate Walking and Running Speed Estimation using Wrist Inertial Data
 Bertschi, Mattia *CSEM*; Celka, Patrick *CSEM*; Delgado-Gonzalo, Ricard* *CSEM*; Lemay, Mathieu *EPFL*; Calvo, Enric *CSEM*; Grossenbacher, Olivier *CSEM SA*; Renevey, Philippe *CSEM*

09:00-09:15 SaAT17.3
A Novel Method for Assessing the Severity of Levodopa-Induced Dyskinesia using Wearable Sensors
 Lee, Sunghoon Ivan *Univ. of California Los Angeles*; Daneault, Jean-Francois *Harvard Medical School*; Golabchi, Fatemeh Noushin *Northeastern Univ.*; Patel, Shyamal *Harvard Medical School*; Paganoni, Sabrina *Dept. of PM&R, Harvard Medical School*; Shih, Ludy *Harvard Medical School*; Bonato, Paolo* *Harvard Medical School*

09:15-09:30 SaAT17.4
Physical Activity Profiling: Activity-Specific Step Counting and Energy Expenditure Models using 3D Wrist Acceleration
 Delgado-Gonzalo, Ricard* *CSEM*; Celka, Patrick *CSEM*; Renevey, Philippe *CSEM*; Dasen, Stephan *CSEM*; Sola, Josep *CSEM- Centre Suisse d'Electronique et Microtechnique*; Bertschi, Mattia *CSEM*; Lemay, Mathieu *EPFL*

09:30-09:45 SaAT17.5
Detection of Essential Hypertension with Physiological Signals from Wearable Devices
 Ghosh, Arindam* *Univ. of Trento*; Mayor Torres, Juan Manuel *Univ. of Trento*; Danieli, Morena *Univ. of Trento*; Riccardi, Giuseppe *Univ. of Trento*

09:45-10:00 SaAT17.6
Evaluation of the Beat-to-Beat Detection Accuracy of PulseOn Wearable Optical Heart Rate Monitor
 Parak, Jakub* *Tampere Univ. of Technology*; Tarniceriu, Adrian *PulseOn SA*; Renevey, Philippe *CSEM*; Bertschi, Mattia *CSEM*; Delgado-Gonzalo, Ricard *CSEM*; Korhonen, Ilkka *Tampere Univ. of Technology*

SaAT18: 08:30-10:00 Space 2
1.40 Time-Frequency Analysis of Biosignals I: Electroencephalography (Oral Session)
Chair: Siddique, Nazmul *Ulster University*
Co-Chair: Tarvainen, Mika *University of Eastern Finland*

08:30-08:45 SaAT18.1
3D Hand Movement Velocity Reconstruction using Power Spectral Density of EEG Signals and Neural Network
 Korik, Attila *Ulster Univ.*; Siddique, Nazmul* *Ulster Univ.*; Sosnik, Ronen *Holon Institute of Technology (HIT)*; Coyle, Damien *Univ. of Ulster*

08:45-09:00 SaAT18.2
Effect of Negative and Positive Emotions on EEG Spectral Asymmetry
 Orgo, Laura* *Tallinn Univ. of Technology*; Bachmann, Maie *Tallinn Univ. of Technology*; Lass, Jaanus *Tallinn Univ. of Technology*; Hinrikus, Hiie *Tallinn Univ. of Technology*

09:00-09:15 SaAT18.3
A Time-Frequency Respiration Tracking System using Non-Contact Bed Sensors with Harmonic Artifact Rejection
 Beattie, Zachary Todd* *Fitbit*; Jacobs, Peter G. *Oregon Health & Science Univ.*; Riley, Thomas *Oregon Health and Science Univ.*; Hagen, Chad *Oregon Health & Science Univ.*

- 09:15-09:30 SaAT18.4
Relating Tribological Stimuli to Somatosensory Electroencephalographic Responses
 Oezguen, Novaf* *Leibniz - Institute for New Materials*; Bennewitz, Roland *Leibniz - Institute for New Materials*; Strauss, Daniel J. *Saarland Univ., Medical Faculty*; Schubert, J. Kristof *SNN-Unit*; Bergmann, Ronny *Tech. Univ. Kaiserautern*
- 09:30-09:45 SaAT18.5
Comparison of EEG and MEG in Source Localization of Induced Human Gamma-Band Oscillations during Visual Stimulus
 Mideksa, Kidist Gebremariam* *Univ. of Kiel*; Hogenboom, Nienke *Univ. of Duesseldorf*; Helge, Hellriegel *Dept. of Neurology*; Krause, Holger *Univ. of Duesseldorf*; Schnitzler, Alfons *Univ. of Duesseldorf*; Gunther, Deuschl *Dept. of Neurology*; Jan, Raethjen *Dept. of Neurology*; Heute, Ulrich *Univ. of Kiel*; Muthuraman, Muthuraman *Christian Albrechts Univ.*
- 09:45-10:00 SaAT18.6
Towards the Assessment of Listening Effort in Real Life Situations: Mobile EEG Recordings in a Multimodal Driving Situation
 Damian, Angela *Systems Neuroscience and NeuroTechnology Unit*; Corona-Strauss, Farah I. *Saarland Univ. Hospital*; Hannemann, Ronny *Siemens Audiologische Technik*; Strauss, Daniel J.* *Saarland Univ., Medical Faculty*
- SaAT19: 08:30-10:00 Space 3
2.30 Optical Image Analysis (Oral Session)
Co-Chair: Bocchi, Leonardo *Univ. degli Studi di Firenze, Italy*
- 08:30-08:45 SaAT19.1
Analyzing OCT Images of Age-Related Macular Degeneration Patients to Identify Spatial Health Correlations
 Go, Susannah* *Univ. of Nebraska - Omaha*; Chundi, Parvathi *Univ. of Nebraska-Omaha*; Subramaniam, Mahadevan *Univ. of Nebraska-Omaha*; Margalit, Eyal *Univ. of Nebraska Medical Center*
- 08:45-09:00 SaAT19.2
Morphological Analysis of Neurons: Automatic Identification of Elongations
 Cosentino, Angela *Univ. of Florence*; Boni, Enrico *Univ. of Florence*; Pacini, Stefania *Univ. of Florence*; Branca, Jacopo *Univ. of Florence*; Morucci, Gabriele *Univ. of Florence*; Ruggiero, Marco *Univ. of Florence*; Bocchi, Leonardo* *Univ. degli Studi di Firenze, Firenze, Italy*
- 09:00-09:15 SaAT19.3
Unsupervised HEp-2 Mitosis Recognition in Indirect Immunofluorescence Imaging
 Tonti, Simone *Politecnico di Torino*; Di Cataldo, Santa* *Politecnico di Torino*; Macci, Enrico *Politecnico di Torino*; Ficarra, Elisa *Politecnico di Torino*
- 09:15-09:30 SaAT19.4
Characterization of the Role of Collagen Network Structure and Composition in Cancer Cell Migration
 Anguiano, María* *Center for Applied Medical Research, Univ. of Navarra*; Castilla, Carlos *Center for Applied Medical Research, Univ. of Navarra*; Maška, Martin *Masaryk Univ.*; Ederra, Cristina *Center for Applied Medical Research, Univ. of Navarra*; Fernández-Marqués, Javier *Center for Applied Medical Research, Univ. of Navarra*; Peláez, Rafael *Center for Applied Medical Research, Univ. of Navarra*; Rouzaut, Ana *Center for Applied Medical Research, Univ. of Navarra*; Muñoz-Barrutia, Arrate *Univ. Carlos III de Madrid*; Kozubek, Michal *Masaryk Univ.*; Ortiz-de-Solorzano, Carlos *Centre for Applied Medical Research*
- 09:30-09:45 SaAT19.5
Semiautomatic Detection of Villi in Confocal Endoscopy for the Evaluation of Celiac Disease
 Boschetto, Davide* *IMT Institute for Advanced Studies Lucca*; Mirzaei, Hadis *Univ. of New South Wales*; Leong, Rupert *Univ. of New South Wales*; Tarroni, Giacomo *Univ. of Padova*; Grisan, Enrico *Univ. of Padova*
- 09:45-10:00 SaAT19.6
Simulation of Cellular Changes on Optical Coherence Tomography of Human Retina
 Santos, Miriam *AIBILI-Association for Innovation and Biomedical Research on Lig*; Araújo, Adérito *Faculty of Science and Technology, Univ. of Coimbra*; Barbeiro, Silvia *Faculty of Science and Technology, Univ. of Coimbra*; Caramelo, Francisco *IBILI, FMUC*; Correia, António Luis *AIBILI*; Marques, Isabel *IBILI - Institute for Biomedical Imaging and Life Sciences*; Pinto, Luis *CMUC, Dept. of Mathematics, Faculty of Science and Technolo*; Serranho, Pedro *Mathematics Section, Dept. of Science and Technology, Univ.*; Bernardes, Rui *Faculty of Medicine, Univ. of Coimbra*; Morgado, Miguel* *Univ. of Coimbra*
- SaAT20: 08:30-10:00 Space 4
10.10 Decision Support Methods and Systems (Oral Session)
Chair: Traver, Vicente *Institute ITACA*
Co-Chair: Quaglioni, Silvana *University of Pavia*
- 08:30-08:45 SaAT20.1
A Decision Support System based on an Ensemble of Random Forests for Improving the Management of Women with Abnormal Findings at Cervical Cancer Screening
 Bountris, Panagiotis* *Biomedical Engineering Lab, School of Electrical and Comp*; Haritou, Maria *Biomedical Engineering Lab, School of Electrical and Comp*; Pouliakis, Abraham *Dept. of Cytopathology, "ATTIKON" Univ. Hospital, Univ*; Karakitsos, Petros *Dept. of Cytopathology, "ATTIKON" Univ. Hospital, Univ*; Koutsouris, Dimitrios *Biomedical Engineering Lab, School of Electrical and Comp*
- 08:45-09:00 SaAT20.2
Using Sequential Patterns as Features for Classification Models to Make Accurate Predictions on ICU Events
 Ghosh, Shameek* *Advanced Analytics Institute, FEIT, Univ. of Tech. Syd*; Li, Jinyan *Univ. of Tech. Sydney (UTS), Australia*
- 09:00-09:15 SaAT20.3
Automated Estimation of Surgery Duration for the Optimization of Operative Room's Planning
 Lamer, Antoine* *CHRU de Lille*; De Jonckheere, Julien *CHRU de Lille*; Jeanne, Mathieu *CHRU de Lille*; Logier, Regis *CHRU de Lille*
- 09:15-09:30 SaAT20.4
From Data to the Decision: A Software Architecture to Integrate Predictive Modelling in Clinical Settings
 Martínez-Millana, Antonio* *Univ. Politécnica de Valencia*; Fernandez-Llatas, Carlos *Univ. Politécnica de Valencia*; Sacchi, Lucia *Univ. of Pavia*; Segagni, Daniele *IRCCS Fondazione Salvatore Maugeri, Pavia*; Bellazzi, Riccardo *Univ. of Pavia*; Traver, Vicente *Institute ITACA*; Guillen, Sergio *Institute Itaca Valencia*
- 09:30-09:45 SaAT20.5
Development of Sleep Apnea Syndrome Screening Algorithm by using Heart Rate Variability Analysis and Support Vector Machine
 Nakayama, Chikao *Kyoto Univ.*; Fujiwara, Koichi* *Kyoto Univ.*; Matsuo, Masahiro *Shiga Univ. of Medical Science*; Kano, Manabu *Kyoto Univ.*; Kadotani, Hiroshi *Shiga Univ. of Medical Science*
- 09:45-10:00 SaAT20.6
Emergency Response Nurse Scheduling with Medical Support Robot by Multi-Agent and Fuzzy Technique
 Kono, Shinya* *Tottori Univ.*; Kitamura, Akira *Tottori Univ.*
- SaAT21: 08:30-10:00 Suite 8
4.11 Algorithms and Computational Tools for Proteomics (Invited Session)
Chair: Seker, Huseyin *The University of Northumbria at Newcastle*
- 08:30-08:45 SaAT21.1
Comparison of Unsupervised Feature Selection Methods for High-Dimensional Regression Problems in Prediction of Peptide Binding Affinity
 Sarac, Ferdi *Northumbria Univ. at Newcastle*; Uslan, Volkan *De Montfort Univ.*; Seker, Huseyin* *The Univ. of Northumbria at Newcastle*; Bouridane, Ahmed *Northumbria Univ.*

08:45-09:00	SaAT21.2	10:00-11:30	SaBPoT1.7
Inference of Nonlinear Gene Regulatory Networks through Optimized Ensemble of Support Vector Regression and Dynamic Bayesian Networks		EEMD-Based Signal Processing for Arterial Tonometry Blood Pressure	
Akutekwe, Arinze* <i>Univ. of Northumbria at Newcastle</i> ; Seker, Huseyin <i>The Univ. of Northumbria at Newcastle</i>		Huang, Yen-Ming* <i>National Taiwan Univ.</i> ; Hsieh, Hsiang-Hua <i>National Taiwan Univ.</i> ; Hsieh, Yi-Yen <i>National Taiwan Univ.</i>	
09:00-09:15	SaAT21.3	10:00-11:30	SaBPoT1.8
Novel Protein Weight Matrix Generated from Amino Acid Indices		Cardiovascular Control in Spontaneous Hypertensive and Normotensive Sinoaortic Denervated Rats during Hemorrhagic Shock	
Chrysostomou, Charalambos* <i>Univ. of Leicester</i> ; Seker, Huseyin <i>The Univ. of Northumbria at Newcastle</i>		Aletti, Federico* <i>Univ. of California San Diego</i> ; Dos Santos, Fernando <i>Univ. de Sao Paulo</i> ; Dias Moreira, Edson <i>Univ. de Sao Paulo</i> ; Irigoyen, Maria Claudia <i>Univ. de Sao Paulo</i> ; Ferrario, Manuela <i>Politecnico di Milano</i>	
09:15-09:30	SaAT21.4	10:00-11:30	SaBPoT1.9
Integrative Analysis of LC-MS based Glycomic and Proteomic Data		Noise-Robust Auditory Evoked Potential Extraction Algorithm	
Wang, Minkun <i>Virginia Polytechnic Institute and State Univ.</i> ; Yu, Guoqiang <i>Virginia Polytechnic Institute and State Univ.</i> ; Resson, Habtom* <i>Georgetown Univ.</i>		Ku, Yunseo <i>Seoul National Univ.</i> , <i>Samsung Advanced Institute of Technolo</i> ; Byun, Wooseok <i>Chungnam National Univ.</i> ; Kim, Ji-Hoon <i>Chungnam National Univ.</i> ; Kim, Hee Chan* <i>Seoul National Univ.</i>	
09:30-09:45	SaAT21.5	10:00-11:30	SaBPoT1.10
Pan-Cancer Analysis for Studying Cancer Stage using Protein Expression Data		Feature Extraction in Accelerometer-Based Mechanomyography during Pediatric Gait	
Mishra, Sameer* <i>Georgia Institute of Technology</i> ; Kaddi, Chanchala D. <i>Georgia Institute of Technology</i> ; Wang, May D. <i>Georgia Tech and Emory Univ.</i>		Plewa, Katherine* <i>Univ. of Toronto</i> ; Chau, Tom <i>Univ. of Toronto</i>	
09:45-10:00	SaAT21.6	10:00-11:30	SaBPoT1.11
A Visual Tool for DNA Repeats Screening		Evaluation of Sparse Representation based Classification Method for Online Brain-Computer Interface Systems	
Pop, Petre Gavril* <i>Technical Univ. of Cluj Napoca</i> ; Vaida, Mircea-Florin <i>Technical Univ. of Cluj-Napoca</i>		Shin, Younghak <i>Gwangju Institute of Science and Tech.</i> ; Lee, Seungchan <i>Gwangju Institute of Science and Tech.</i> ; Lee, Heung-No* <i>Gwangju Institute of Science and Tech. (GIST)</i>	
SaBPoT1: 10:00-11:30 Gold Room			
1.LB2 Biomedical Signal Processing (Poster Session)			
10:00-11:30	SaBPoT1.1	10:00-11:30	SaBPoT1.12
SVM-Based Non-Intrusive Sleep Staging Method for OSA Patients		Control of the One Dimensional Map Dynamics of the Cardiac Action Potential Duration	
Joo, Kwangmin <i>Seoul National Univ.</i> ; Yoon, Heenam <i>Seoul National Univ.</i> ; Jung, Dawoon <i>Seoul National Univ.</i> ; Hwang, Suhwan <i>Seoul National Univ.</i> ; Choi, Sangho <i>Seoul National Univ.</i> ; Choi, Jaewon <i>Seoul National Univ. Hospital</i> ; Lee, Yujin <i>Seoul National Univ. Hospital</i> ; Jeong, Do-Un <i>Seoul National Univ. Hospital</i> ; Park, Kwang S.* <i>Seoul National Univ.</i>		Kesmia, Mounira <i>Univ. de Constantine 1</i> ; Boughaba, Soraya <i>Univ. de Constantine 1</i> ; Jacquir, Sabir* <i>Laboratoire LE2I UMR CNRS 6306, Univ. de Bourgogne</i>	
10:00-11:30	SaBPoT1.2	10:00-11:30	SaBPoT1.13
Multitaper Frequency Domain Bootstrap		Assessment of Cardiorespiratory Interactions in West Syndrome using Phase Rectified Signal Averaging	
Kim, Seong-Eun* <i>Massachusetts Institute of Technology</i> ; Ba, Demba <i>MIT</i> ; Brown, Emery N <i>MGH-Harvard Medical School-MIT</i>		Varon, Carolina* <i>Katholieke Univ. Leuven</i> ; Jansen, Katrien <i>Dept. of Pediatrics, Univ. Hospital Gasthuisberg, Leuven</i> ; Lagae, Lieven <i>Univ. Hospital of Leuven</i> ; Van Huffel, Sabine <i>Katholieke Univ. Leuven</i>	
10:00-11:30	SaBPoT1.3	10:00-11:30	SaBPoT1.14
Entropy of Ordinal Patterns for Signals from the Head-Up Tilt Test		Online EEG Artifact Rejection based on Automatic Dimensionality Reduction	
Wejer, Dorota* <i>Univ. of Gdańsk</i> ; Makowiec, Danuta <i>Institute of Theoretical Physics and Astrophysics, Gdansk Univ.</i>		Freitas, Lorena* <i>NeuroTechnology Group, Technische Univ. Berlin</i> ; Blankertz, Benjamin <i>Technische Univ. Berlin</i> ; Höhne, Johannes <i>Berlin Institute of Technology</i>	
10:00-11:30	SaBPoT1.4	10:00-11:30	SaBPoT1.15
Local Field Potentials for Understanding Pathophysiology of Tourette Syndrome: Preliminary Results		Interictal Networks in Temporal Lobe Epilepsy Revealed by Joint ICA	
Rosa, Manuela* <i>Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico</i> ; Marceglia, Sara <i>Univ. degli Studi di Trieste</i> ; Servello, Domenico <i>IRCCS Galeazzi</i> ; Priori, Alberto <i>Univ. di Milano, Fondazione IRCCS Ospedale Maggiore Policlin</i>		Hunyadi, Borbala* <i>KU Leuven</i> ; Van Huffel, Sabine <i>Katholieke Univ. Leuven</i>	
10:00-11:30	SaBPoT1.5	10:00-11:30	SaBPoT1.16
Objective Assessment of Pathological Tremor Severity		Detection of Change in Time-Course of Cortical Connectivity during Short-Term Memory Test	
Belda-Lois, Juan-Manuel* <i>Asociación Instituto de Biomecánica de Valencia</i> ; Prieto, Luis <i>Instituto de Biomecánica Valencia</i> ; Artacho, Carla <i>Instituto de Biomecánica Valencia</i>		Kikuchi, Ryo* <i>Waseda Univ.</i> ; Ono, Yumie <i>Meiji Univ.</i> ; Yokosawa, Koichi <i>Hokkaido Univ.</i> ; Ishiyama, Atsushi <i>Waseda Univ.</i>	
10:00-11:30	SaBPoT1.6	10:00-11:30	SaBPoT1.17
Contact-Less Video-Based Tracking of Heart Rate		Estimation of Knee Extensor Strength using Wearable Sensors	
Bandini, Andrea <i>Univ. of Florence</i> ; Orlandi, Silvia* <i>Univ. degli Studi di Firenze</i> ; Capo, Alessandro <i>Univ. degli Studi di Firenze</i> ; Vannetti, Federica <i>Univ. degli Studi di Firenze</i> ; Pasquini, Guido <i>Fondazione Don Carlo Gnocchi IRCCS</i> ; Manfredi, Claudia <i>Univ. degli Studi di Firenze</i>		Sato, Yoshikuni* <i>Panasonic Corporation</i> ; Nakada, Toru <i>Panasonic Corporation</i> ; Kozuka, Kazuki <i>Panasonic Corporation</i> ; Kiyono, Masaki <i>Panasonic Corporation</i> ; Nonoyama, Tadayoshi <i>Univ. of Fukui Hospital</i> ; Kubota, Masafumi <i>Univ. of Fukui Hospital</i> ; Koie, Yusuke <i>Univ. of Fukui Hospital</i> ; Yasutake, Masaki <i>Univ. of Fukui Hospital</i> ; Yamamura, Osamu <i>Second Dept. of Internal Medicine Univ. of Fukui</i>	

- 10:00-11:30 SaBPoT1.18
Influence of Soft Tissue Artifacts of Mid-Thigh Skin Marker during Treadmill Running in Different Speeds
 Zeitoune, Gabriel *Federal Univ. of Rio de Janeiro*; Leporace, Gustavo* *Univ. Federal do Rio de Janeiro*; Metsavaht, Leonardo *Instituto Brasil de Tecnologias da Saúde*; Batista, Luiz Alberto *Univ. Estadual do Rio de Janeiro*; Nadal, Jurandir *Federal Univ. of Rio de Janeiro*
- 10:00-11:30 SaBPoT1.20
Assessment of Information Transfer between EEG and Near-Infrared Spectroscopy by Means of Transfer Entropy
 Youssef Ali Amer, Ahmed* *KU Leuven*; Caicedo Dorado, Alexander *Katholieke Univ. Leuven*; Thewissen, Liesbeth *UZ Leuven*; Smits, Anne *UZ Leuven*; Elbarbary, Khairy *Suez Canal Univ.*; Allegaert, Karel *KU Leuven*; Naulaers, Gunnar *Univ. Hospitals Leuven*; Van Huffel, Sabine *Katholieke Univ. Leuven*
- 10:00-11:30 SaBPoT1.21
An Integrating Sphere-Type Finger-Photoplethysmography with Higher Accuracy and Sensitivity towards Practical Non-Invasive Measurement of Blood Constituents
 Yamakoshi, Yasuhiro* *Hokkaido Univ.*; Matsumura, Kenta *Hokkaido Univ.*; Yamakoshi, Takehiro *Fukuoka Institute of Technology*; Lee, Jihyoung *Fukuoka Institute of Technology*; Motoi, Kosuke *Shizuoka Institute of Science and Technology*; Rolfe, Peter *Oxford BioHorizons Ltd*; Shimizu, Koichi *Hokkaido Univ.*; Yamakoshi, Ken-ichi *Kanazawa Univ.*
- 10:00-11:30 SaBPoT1.22
Wake-Sleep Transition as an Opening of Cortico-Thalamo-Cortical Loop
 Yamaguchi, Ikuhiro* *Univ. of Tokyo*; Togo, Fumiharu *National Institute of Occupational Safety and Health*; Kishi, Akifumi *The Univ. of Tokyo*; Nakamura, Toru *The Univ. of Tokyo*; Yamamoto, Yoshiharu *The Univ. of Tokyo*
- 10:00-11:30 SaBPoT1.24
A Low-Cost Drowsiness Detection System as a Medical Mobile Application
 Samir, Ahmed* *Helwan Univ.*; Seddik, Ahmed *Helwan Univ.*; Shawky, Doaa *Cairo Univ., Faculty of Engineering*
- 10:00-11:30 SaBPoT1.25
Evaluation of Sampling Paradigms using Multiple Images for Increasing the Repeatability of Static Vessel Analysis
 Rieger, Steffen* *TU Ilmenau*; Vilser, Walthard *Imedos Systems UG*; Baumgarten, Daniel *Ilmenau Univ. of Technology*
- 10:00-11:30 SaBPoT1.26
Fault Tolerance Analysis of Restricted Boltzmann Machines in Deep Learning for Embedded Biosignal Processing
 Marukame, Takao* *EPFL*; Calabrese, Enrico *EPFL, LSM*; Schmid, Alexandre *EPFL*
- 10:00-11:30 SaBPoT1.27
Metrics for the Background EEG Assessment in Asphyxiated Infants
 Matic, Vladimir* *Dept. of Electrical Engineering (ESAT-SCD), Katholieke Univ*; Cherian, Perumpillichira *Joseph Clinical Neurophysiology, Dept. of Neurology, Erasmus MC, Rot*; Ansari, Amir Hossein *KU Leuven*; Koolen, Ninah *Dept. of Electrical Engineering, Univ. of Leuven*; Govaert, Paul *Dept. of Neonatology, Sophia Children's Hospital, Erasm*; Naulaers, Gunnar *Univ. Hospitals Leuven*; Van Huffel, Sabine *Katholieke Univ. Leuven*; De Vos, Maarten *Univ. of Oxford*
- 10:00-11:30 SaBPoT1.29
A Heart Rate Detection Method using Bio-Impedance and MUSIC Algorithm with Reduced Sensitivity to Motion
 Lee, Jonghwa *KAIST*; Cho, SeongHwan* *KAIST*
- 10:00-11:30 SaBPoT1.30
Cardiorespiratory Capacity of Heart Rate
 Fedotov, Alexander *Samara State Aerospace Univ.*; Akulova, Anna* *Samara State Aerospace Univ.*; Akulov, Sergey *Samara State Aerospace Univ.*
- 10:00-11:30 SaBPoT1.31
Uterine Activity Monitoring by Electrohysterogram Recurrence Plot Analysis
 Hurezeanu, Bogdan *Univ. Politehnica of Bucharest*; Taralunga, Dragos-Daniel* *Politehnica Univ. of Bucharest*; Strungaru, Rodica *Politehnica Univ. of Bucharest*; Ungureanu, G. Mihaela *Politehnica Univ. of Bucharest*
- 10:00-11:30 SaBPoT1.32
A Fast Algorithm for Extracting the Breathing Rate from PPG Signal
 Locatelli, Davide* *Politecnico di Milano*; Fusco, Alessandra *Politecnico di Milano*; Onorati, Francesco *Politecnico di Milano*; Santambrogio, Marco *Politecnico di Milano*
- 10:00-11:30 SaBPoT1.33
EEG Analysis for Learning in Cognitive Arithmetic Processing using a Brain Computer Interface
 Jaime, C. *Univ. of Puerto Rico at Mayaguez*; Nieves, O. *Univ. of Puerto Rico at Mayaguez*; Huertas, Raul *Univ. of Puerto Rico at Mayaguez*; Manian, Vidya* *Univ. of Puerto Rico at Mayaguez*
- 10:00-11:30 SaBPoT1.34
EEG Single-Channel Time Frequency Analysis for Motor Imagery Classification
 Jaime, Camacho *Univ. of Puerto Rico at Mayaguez*; Huertas, Raul *Univ. of Puerto Rico at Mayaguez*; Manian, Vidya* *Univ. of Puerto Rico at Mayaguez*
- 10:00-11:30 SaBPoT1.35
Estimation of Propagation Structure during Epileptic Seizure in Temporal Lobe
 Yoshioka, Yasuto *Graduate School of Biology-Oriented Science and Technology, Kinki*; Yoshida, Hisashi* *Kinki Univ.*; Miyauchi, Masaharu *Dept. of Neurosurgery, Faculty of Medicine, Kinki Univ.*; Nakano, Naoki *Dept. of Neurosurgery, Faculty of Medicine, Kinki Univ.*; Kato, Amami *Dept. of Neurosurgery, Faculty of Medicine, Kinki Univ.*
- 10:00-11:30 SaBPoT1.36
Discriminating Patterns of Neuronal Activity by Self Organization Map with Fuzzy Sets
 Minoshima, Wataru *Kwansei Gakuin Univ.*; Ito, Hidekatsu *Kwansei Gakuin Univ.*; Kudoh, Suguru* *Kwansei Gakuin Univ.*
- 10:00-11:30 SaBPoT1.37
Adaptive Removal of Motion Artifacts in Biopotential Measurements by using the Power-Line Interference
 Xu, Lin* *Eindhoven Univ. of Technology*; Rooijackers, Michael *Johannes Eindhoven Univ. of Technology*; Peuscher, Jan *TMSi, Enschede*; Rabotti, Chiara *Eindhoven Univ. of Technology*; Mischi, Massimo *Eindhoven Univ. of Technology*
- 10:00-11:30 SaBPoT1.38
Shaping a Set of Oriented Connections among Brain Areas by Comparison between Coherence and Granger Causality
 Pizzi, Rita* *Univ. degli Studi di Milano*; Rutigliano, Teresa *Univ. degli Studi di Milano*; Musumeci, Marialessia *Univ. degli Studi di Milano*
- 10:00-11:30 SaBPoT1.40
Noise Suppression of Microelectrode Recording of Multichannel EMG Writers Cramp Signals and Principal Component Analysis
 Rama Raju, Venkateshwarla* *GITAM for Women Engg College Proddatur (Jawaharlal Nehru Technol*
- 10:00-11:30 SaBPoT1.41
Binary Autonomous State Classification based on Basic Heart Rate Variability Indices
 Ito, Toshiki *Hosei Univ.*; Yamashita, Shohei *Hosei Univ.*; Yana, Kazuo* *Hosei Univ.*
- 10:00-11:30 SaBPoT1.42
The Effective Bandwidth as a Useful Measure of Evaluating HRV Power Spectrum Estimation Accuracy
 Aihara, Mitsuki *Hosei Univ. Graduate School*; Nagai, Hidenao *Hosei Univ. Graduate School*; Suga, Masaki *Graduate School of Science and Engineering, Hosei Univ.*; Yana, Kazuo* *Hosei Univ.*

- 10:00-11:30 SaBPoT1.43
The Diurnal Changes in the QT and RR Intervals for Type II Diabetes Correlate with Total Cholesterol and Triacylglyceride
 Masuda, Yuta *Hosei Univ.*; Yana, Kazuo* *Hosei Univ.*;
 Ono, Takuya *Nippon Medical School*
- 10:00-11:30 SaBPoT1.44
Large-Scale Prediction of Acute Hypotensive Episodes via Locality-Sensitive Hashing on Physiological Waveform Time Series
 Kim, Yongwook Bryce* *Massachusetts Institute of Technology*;
 O'Reilly, Una-May *Massachusetts Institute of Technology*
- 10:00-11:30 SaBPoT1.45
Feasibility Study on Joint Angle Estimation by Means of Muscle Bulge Movement Longitudinally Along the Forearm
 Kato, Akira* *Waseda Univ.*; Matsumoto, Yuya *Waseda Univ.*;
 Kobayashi, Yo *Waseda Univ.*; Sugano, Shigeki *Waseda Univ.*;
 Fujie, Masakatsu G. *Waseda Univ.*
- SaBPoT2: 10:00-11:30 Gold Room
2.LB2 Biomedical Imaging and Image Processing (Poster Session)
- 10:00-11:30 SaBPoT2.1
Computer Aided Diagnosis towards Chronic Liver Disease Classification in Shear Wave Elastography Images
 Gatos, Ilias *Univ. of Patras*; Tsantis, Stavros* *Univ. of Patras*;
 Skouroliakou, Katerina *Technical Educational Institute of Athens*; Kagadis, George *Univ. of Patras*
- 10:00-11:30 SaBPoT2.2
Automated Analysis of Geographic Atrophy from Fundus Autofluorescence
 Burlina, Philippe* *Johns Hopkins Univ.*; Tadarati, Mongkol *the Wilmer Eye Institute, the Johns Hopkins Univ.*; Freund, David *JHU/APL*; Bressler, Neil *JHU*
- 10:00-11:30 SaBPoT2.3
Detecting Neurotransmitters using Resonant Nanoparticles
 Forati, Ebrahim* *Univ. of California San Diego*; Sabouni, Abas *Wilkes Univ.*; Ray, Supriyo *Univ. of California San Diego*;
 Sievenpiper, Dan *Univ. of California San Diego*
- 10:00-11:30 SaBPoT2.4
Multi-Scale Hybrid Filter for Vasculature Extraction Enhancement
 Abdeldayem, Sara* *Faculty of Engineering, Cairo Univ.*;
 Yassine, Inas *Cairo Univ.*
- 10:00-11:30 SaBPoT2.5
Study on Characteristics of Magneto-Acoustic Signal from Different Thickness Phantoms
 Zhang, Shunqi *Institute of Biomedical Engineering, Chinese Academy of Medical Sc*; Zhou, Xiaoqing *Chinese Academy of Medical Sciences & Peking Union Medical College*; Yin, Tao *Chinese Academy of Medical Sciences, Peking Union Medical College*; Liu, Zhipeng* *Chinese Academy of Medical Sciences, Peking Union Medical College*
- 10:00-11:30 SaBPoT2.6
A Mixed Discretized Boundary Element Method for the Anisotropic EEG Forward Problem
 Pillain, Axelle* *Ecole Nationale Supérieure des Télécommunications de Bretagne*; Rahmouni, Lyes *Telecom Bretagne*; Andriulli, Francesco P. *Institute Mines-Telecom*
- 10:00-11:30 SaBPoT2.7
Application of Synchrotron X-Ray Imaging for Safety Improvement of Ultrasound Imaging and Therapy
 Izadifar, Zahra* *Univ. of Saskatchewan*; Belev, George *Canadian Light Source Inc.*; Babyn, Paul *Univ. of Saskatchewan*; Chapman, Dean *Univ. of Saskatchewan*
- 10:00-11:30 SaBPoT2.8
A Method for Segmentation of Multiple Sclerosis Lesions on Magnetic Resonance Images
 Storelli, Loredana* *Neuroimaging Research Unit, Institute of Experimental Neurology*; Pagani, Elisabetta *Neuroimaging Research Unit, Institute of Experimental Neurology*; Rocca, Maria Assunta *Neuroimaging Research Unit, Institute of Experimental Neurology*; Filippi, Massimo *Neuroimaging Research Unit, Institute of Experimental Neurology*,
- 10:00-11:30 SaBPoT2.9
Improving Brain Parcellation for Graph Analysis. An Application in Alzheimer's Disease and Mild Cognitive Impairment
 Basaia, Silvia* *Neuroimaging Research Unit, Institute of Experimental Neurology*; Agosta, Federica *Neuroimaging Research Unit, Institute of Experimental Neurology*; Canu, Elisa *Neuroimaging Research Unit, Institute of Experimental Neurology*; Galantucci, Sebastiano *Neuroimaging Research Unit, Institute of Experimental Neurology*; Meani, Alessandro *Neuroimaging Research Unit, Institute of Experimental Neurology*; Filippi, Massimo *Neuroimaging Research Unit, Institute of Experimental Neurology*,
- 10:00-11:30 SaBPoT2.11
High-Speed Laser-Scanning Optical-Resolution Photoacoustic Microscopy based on Graphics Processing Unit
 Lee, Sang-Won* *Korea Research Institute of Standards and Science*; Kang, Heesung *Korea Research Institute of Standards and Science*; Lee, Eun-Soo *Korea Research Institute of Standards and Science*; Kim, Se-Hwa *Korea Research Institute of Standards and Science*; Lee, Tae Geol *Korea Research Institute of Standards and Science*
- 10:00-11:30 SaBPoT2.12
Validation of an Automatic Hard Tissue Segmentation Algorithm for Cone Beam CT Data
 Codari, Marina* *Univ. degli Studi di Milano*; Caffini, Matteo *Polytech. Univ. of Milan*; Rizzo, Ludovica *Politecnico di Milano*; Rocco, Giulia *Politecnico di Milano*; Tartaglia, Gianluca *Martino Univ. degli Studi di Milano*; Baselli, Giuseppe *Politecnico di Milano*; Sforza, Chiarella *Univ. degli Studi di Milano*
- 10:00-11:30 SaBPoT2.13
EyeBallGUI: A Tool for Interactively Viewing and Marking Multi-Channel Bio-Signals for Artefacts
 Mohr, Kieran* *Trinity College Dublin*; Nasseroleslami, Bahman *Trinity College Dublin*; Iyer, Parameswaran M. *Trinity College Dublin*; Hardiman, Orla *Trinity College Dublin*; Lalor, Edmund *Trinity College Dublin*
- 10:00-11:30 SaBPoT2.16
Fiber-Type Hyperspectral Melanoma Screening System
 Nagaoka, Takashi* *Kinki Univ.*; Nakamura, Atsushi *Waseda Univ.*; Kiyohara, Yoshio *Shizuoka Cancer Center Hospital*;
 Sota, Takayuki *Science & Engineering, Waseda Univ.*
- 10:00-11:30 SaBPoT2.17
Anisotropic Conductivity Imaging of a Postmortem Canine Brain using DT-MREIT
 Jeong, Woo Chul *Kyung Hee Univ.*; Sajib, Saurav Z K *Kyung Hee Univ.*; Kim, Hyung Joong *Kyung Hee Univ.*; Woo, Eung Je* *Kyung Hee Univ.*
- 10:00-11:30 SaBPoT2.18
Experimental Validation of Damper Insertion Effects on Applied Strain Uniformity in Static Elastography
 Sato, Takayuki* *Tokyo Metropolitan Univ.*
- 10:00-11:30 SaBPoT2.19
Toward Radar based Stroke Imaging by Integrating a Prior Knowledge
 Schmid, Jochen* *Karlsruhe Institute of Technology (KIT)*;
 Doessel, Olaf *Karlsruhe Institute of Technology (KIT)*
- 10:00-11:30 SaBPoT2.21
Design of Unfocused Ultrasound Imaging System using Compressive Sensing
 Ni, Pavel *Gwangju Institute of Science and Tech.*; Park, Sangjun *Gwangju Institute of Science and Tech.*; Lee, Heung-No* *Gwangju Institute of Science and Tech. (GIST)*

- 10:00-11:30 SaBPoT2.22
Smartphone-Based Multispectral Imaging System for Mobile Skin Care
 Kim, Sewoong *Daegu Gyeongbuk Institute of Science & Technology*; Dongrae, Cho *Gwangju Institute of Science and Technology*; Park, Jin Man *Daegu Gyeongbuk Institute of Science & Technology*; Lee, Boreom *Gwangju Institute of Science and Technology (GIST)*; Hwang, Jae Youn* *Daegu Gyeongbuk Institute of Science and Technology*
- 10:00-11:30 SaBPoT2.23
Chest Conductivity Imaging by the Electrical Exploration Method
 Oda, Takaaki* *Osaka Institute of Technology*; Uto, Sadahito *Graduate School of Engineering, Osaka Institute of Technology.*
- 10:00-11:30 SaBPoT2.24
Correlation of Brain Structural and Functional Connectivity Indexes
 Pelizzari, Laura *IRCCS, Don Gnocchi Foundation, Milan*; Scaccianoce, Elisa *IRCCS, Don Gnocchi Foundation, Milan*; Dept. of Electronics; Lagana, Maria Marcella *IRCCS S.Maria Nascente*; Dipasquale, Ottavia *Politecnico di Milano, Milan, Italy*; Costantini, Isa *Dept. of Electronics, Information and Bioengineering, Polit*; Baglio, Francesca *Fondazione Don Carlo Gnocchi, Milano*; Baselli, Giuseppe* *Politecnico di Milano*
- 10:00-11:30 SaBPoT2.25
An Empirical Study of the Robustness of the Soft Prior Regularization in Tomographic Microwave Imaging
 Golnabi, Amir H* *Montclair State Univ.*; Meaney, Paul *Dartmouth College*; Paulsen, Keith *Dartmouth College*
- 10:00-11:30 SaBPoT2.26
Segmentation of T Cells in Fluorescence Microscopy
 Antoni, Sven-Thomas* *Hamburg Univ. of Technology*; Dabrowski, Adam *Hamburg Univ. of Technology*; Schetelig, Daniel *Univ. Medical Center Hamburg-Eppendorf*; Diercks, Björn-Philipp *Univ. Medical Center Hamburg-Eppendorf*; Fliegert, Ralf *Univ. Medical Center Hamburg-Eppendorf*; Werner, René *Univ. Medical Center Hamburg-Eppendorf*; Wolf, Insa M. A. *Univ. Medical Center Hamburg-Eppendorf*; Guse, Andreas H. *Univ. Medical Center Hamburg-Eppendorf*; Schlaefer, Alexander *Hamburg Univ. of Technology*
- 10:00-11:30 SaBPoT2.27
Continuous Wave FNIRS with Silicon Photomultiplier
 Pagano, Roberto* *IMM*; Sciuto, Emanuele Luigi *CNR - IMM*; Santangelo, Maria Francesca *CNR - IMM*; Libertino, Sebania *CNR - IMM*; Parisi, Antonino *Dept. of Energy, Information engineering and Mathematical m*; Adamo, Gabriele *Univ. of Palermo*; Busacca, Alessandro *Univ. degli Studi di Palermo*; Fallica, Piero Giorgio *STMicronics*; Ferla, Giuseppe *STMicronics*; Giaconia, Costantino *Univ. degli Studi di Palermo*; Merla, Arcangelo *ITAB-Foundation Univ G.d'Annunzio*; Lombardo, Salvatore *CNR-IMM*
- 10:00-11:30 SaBPoT2.28
A New Algorithm for the Visual Tracking of Surgical Instruments in Robot-Assisted Laparoscopic Surgery
 Lee, Dongheon *Seoul National Univ.*; Choi, Jaesoon* *Asan Institute for Life Sciences, Asan Medical Center*; Kim, Hee Chan *Seoul National Univ.*
- 10:00-11:30 SaBPoT2.29
A New User-Friendly Tool for Localizing Spots in Fluorescence Microscopy Images
 Marimon, Xavier* *Univ. Politècnica de Catalunya*; Vallmitjana, Alex *Automatic Control Dept., Univ. Politècnica de Catalunya*; Jones, Peter *Dept. of Physiology, Univ. of Otago*; Benitez, Raul *Univ. Politècnica de Catalunya*
- 10:00-11:30 SaBPoT2.30
Cardiac LV Segmentation and Landmark Points Detection using Image Driven Approach in MR Images
 Kadimesetty, Venkata Suryanarayana* *Samsung R&D Institute India, Bangalore*; Viswanathan, Srikrishnan *Samsung R&D Institute India, Bangalore*; Jo, Hyun Hee *Samsung Electronics*
- 10:00-11:30 SaBPoT2.31
Automatic Pulmonary Nodule Detection using Mobility Characteristics and Area Pattern via Pixel Object Tracking
 Ko, Hoon *Wonkwang Univ. School of Medicine*; Lee, Woo Chan *Wonkwang Univ.*; Lee, Jinseok* *Wonkwang Univ. School of Medicine*
- 10:00-11:30 SaBPoT2.33
A Statistical Mapping Strategy to Identify Inspiratory Neurons among Active Cells in the Pre-Bötzinger Complex
 Miwakeichi, Fumikazu* *The Institute of Statistical Mathematics*; Oke, Yoshihiko *Hyogo College of Medicine*; Oku, Yoshitaka *Hyogo College of Medicine*; Galka, Andreas *Christian-Albrechts-Univ. of Kiel*; Hülsmann, Swen *the Center for Nanoscale Microscopy and Molecular Physiology of*
- 10:00-11:30 SaBPoT2.34
Dynamic PET Direct Reconstruction of Noisy Data
 Santarelli, Maria Filomena* *CNR*; Scipioni, Michele *Dept. of Information Engineering, Univ. of Pisa, Pisa*; Positano, Vincenzo *Fondazione G. Monasterio, CNR-Regione Toscana, Pisa, PI, Italy*; Landini, Luigi *Univ. of Pisa*
- 10:00-11:30 SaBPoT2.35
Multiview Boosting for Prostate Cancer Diagnosis
 Kwak, Jin Tae* *National Institutes of Health*; Hewitt, Stephen *National Institutes of Health*; Xu, Sheng *Philips Research North America*; Wood, Bradford *NIH*
- 10:00-11:30 SaBPoT2.36
Pre and Post Liver Lesion Thermal Ablation FDG-PET: Background Driven GMM Segmentation
 Moccia, Sara *Politecnico di Milano*; Solbiati, Marco *Facoltà di Ingegneria Biomedica, Politecnico di Milano - Milano*; Baselli, Giuseppe* *Politecnico di Milano*; Soffientini, Chiara *Dolores Politecnico Milano*; Solbiati, Luigi *Ospedale di Busto Arsizio*
- 10:00-11:30 SaBPoT2.37
Quantitative Analysis for Detection of Retinal Nerve Fiber Layer Defects in Early Glaucoma
 Oh, Jieun *National Cancer Center*; Yang, Hee Kyung *Seoul National Univ.*; Kim, Kwang Gi *National Cancer Center*; Hwang, Jeong Min* *Seoul National Univ. School of Medicine*
- 10:00-11:30 SaBPoT2.38
Hybrid Deformable Registration of 3D Breast Ultrasound Views
 Costa, Matilde* *Univ. of Trieste*; Ermacora, Denis *DataMind Srl*; Pesente, Silvia *Tecnologie Avanzate TA Srl*; Nicolucci, Alberto *Studio Michelangelo Radiodiagnostica Firenze*; Longo, Renata *Univ. of Trieste & INFN, Dept. of Physics*
- 10:00-11:30 SaBPoT2.39
High-Resolution 3D Imaging of Vessels in the Ischemic Rat Hind Limb for Collateral Quantification
 Schwarz, Janina C. V.* *Academic Medical Center, Univ. of Amsterdam*; Van Lier, Monique G. J. T. B. *Academic Medical Center, Univ. of Amsterdam*; Oost, Elco *Academic Medical Center, Univ. of Amsterdam*; Bakker, Erik N. T. P. *Academic Medical Center, Univ. of Amsterdam*; Spaan, Jos *Academic Medical Center, Univ. of Amsterdam, The Netherlands*; Siebes, Maria *Univ. of Amsterdam*
- 10:00-11:30 SaBPoT2.40
DRSTI: A Workbench for Querying Optical Coherence Tomography Images
 Parakh, Abhinav *Univ. of Nebraska - Omaha*; Chundi, Parvathi *Univ. of Nebraska-Omaha*; Subramaniam, Mahadevan *Univ. of Nebraska-Omaha*; Go, Susannah* *Univ. of Nebraska - Omaha*
- 10:00-11:30 SaBPoT2.41
Focused Image Extraction from an Intraoral Microscopic Video Sequence
 Wu, Chia-Hsiang* *I-Shou Univ.*; Hu, Po-Chi *Metal Industries Research & Development Centre*; Chang, Ting-Hao *I-Shou Univ.*

SaBPoT3: 10:00-11:30 3.LB2 Bioinstrumentation, Biosensors and Bio-Micro/Nano Technologies (Poster Session)	Gold Room	10:00-11:30 Heart Rate Monitoring using 3D Hologram based on Smartphone Chung, Heewon <i>Wonkwang Univ. School of Medicine</i> ; Thap, Tharoeun <i>Wonkwang Univ. School of Medicine</i> ; Lee, Jinseok* <i>Wonkwang Univ. School of Medicine</i>	SaBPoT3.21
10:00-11:30 Estimation of Penetrated Bone Layers during Craniotomy via Bioimpedance Measurement: A Preliminary FEM Study Shows Promise Teichmann, Daniel* <i>RWTH Aachen Univ.</i> ; Rohé, Lucas <i>Philips Chair for Medical Information Technology, RWTH Aachen Univ.</i> ; Brendle, Christian <i>Philips Chair for Medical Information Technology, RWTH Aachen Univ.</i> ; Müller, Meiko <i>RWTH Aachen Univ.</i> ; Niesche, Annegret <i>RWTH Aachen Univ.</i> ; Rademacher, Klaus <i>RWTH Aachen Univ.</i> ; Chair of Medical Engineering; Leonhardt, Steffen <i>RWTH Aachen Univ.</i>	SaBPoT3.3	10:00-11:30 Pencil Lead based Electrodes for Underwater ECG Monitoring Thap, Tharoeun <i>Wonkwang Univ. School of Medicine</i> ; Ko, Hoon <i>Wonkwang Univ. School of Medicine</i> ; Jeong, Kwan Moon <i>Wonkwang Univ. School of Medicine</i> ; Lee, Hooseok <i>Wonkwang Univ. School of Medicine</i> ; Lee, Jinseok* <i>Wonkwang Univ. School of Medicine</i>	SaBPoT3.22
10:00-11:30 Characterization of a Capacitor-Based Neurostimulator with Flexible Waveform Design Parodi, Aquiles <i>Louisiana State Univ.</i> ; Choi, Jin-Woo* <i>Louisiana State Univ.</i>	SaBPoT3.5	10:00-11:30 Electrocardiogram Measurement using Dry-Type Stretchable Electrode Okuno, Akifumi <i>Ritsumeikan Univ.</i> ; Lee, Jihyoung <i>Fukuoka Institute of Technology</i> ; Shiozawa, Naruhiro* <i>Ritsumeikan Univ.</i> ; Kwon, Euichul <i>Toyobo Co., Ltd.</i> ; Ishimaru, Sonoko <i>Toyobo Co., Ltd.</i> ; Makikawa, Masaaki <i>Ritsumeikan Univ.</i>	SaBPoT3.23
10:00-11:30 A Small-Scale Telemetry System for Automated Behavioral Recognition in Field and Laboratory Research Springthorpe, Dwight* <i>Univ. of California, Berkeley</i> ; Hammond, Talisin <i>UC Berkeley</i> ; Berg-Kirkpatrick, Taylor <i>UC Berkeley</i>	SaBPoT3.6	10:00-11:30 A Responsive Hydrogel Platform using Supramolecular Polymers for Drug and Gene Delivery Systems De Angelis, Maria Teresa <i>Sapienza Univ. of Rome</i> ; Paciello, Antonio <i>Istituto Italiano di Tecnologia / Center for Advanced Biomateria</i> ; Santonicola, M. Gabriella* <i>Sapienza Univ. of Rome</i>	SaBPoT3.24
10:00-11:30 Lock-In Admittance Sensor for Contactless Estimation of Fluid Conductivity in Biocompatible Polymeric Lines Ravagli, Enrico* <i>Univ. of Bologna</i> ; Crescentini, Marco <i>Univ. of Bologna</i> ; Tartagni, Marco <i>Univ. of Bologna</i> ; Severi, Stefano <i>Univ. of Bologna</i>	SaBPoT3.7	10:00-11:30 Feasibility Study of the Respiration Monitoring based on Acceleration and Pressure Measurement Inside Pillow Park, Sooji <i>Chonnam National Univ.</i> ; Shin, Hangsik* <i>Chonnam National Univ.</i>	SaBPoT3.25
10:00-11:30 Direct Measurement of Glycolytic Metabolites with Nanoparticle-Based Surface-Enhanced Raman Scattering Hase, Takumi* <i>Keio Univ.</i> ; Tamano, Yuki <i>Keio Univ.</i> ; Tsukada, Kosuke <i>Keio Univ.</i>	SaBPoT3.8	10:00-11:30 Flexible, Bendable Surface Type Pulse Sensor Chigira, Hiroshi* <i>NTT Corp.</i> ; Watanabe, Tomoki <i>NTT Corp.</i> ; Mizuno, Osamu <i>NTT Service Evolution Laboratories</i> ; Tanaka, Tomohiro <i>NTT Service Evolution Laboratories</i>	SaBPoT3.26
10:00-11:30 Evaluation of Finger Tapping Test Accuracy using the LeapMotion and the Intel RealSense Sensors Ferraris, Claudia* <i>National Research Council of Italy, Institute of Electronics, Co</i> ; Pianu, Daniele <i>National Research Council of Italy, Institute of Electronics, Co</i> ; Chimienti, Antonio <i>National Research Council of Italy, Institute of Electronics, Co</i> ; Pettiti, Giuseppe <i>National Research Council of Italy, Institute of Electronics, Co</i> ; Cimolin, Veronica <i>Politecnico di Milano - Dept. di Bioingegneria</i> ; Cau, Nicola <i>Politecnico di Milano - Dept. di Bioingegneria</i> ; Nerino, Roberto <i>National Research Council of Italy, Institute of Electronics, Co</i>	SaBPoT3.9	10:00-11:30 Geometrical Design Effect on Lithium Niobate Sensors Response Al-Shibaany, Zeyad* <i>Newcastle Univ.</i> ; Hedley, John <i>Newcastle Univ.</i> ; Hu, Zhongxu <i>School of Mechanical & System Engineering, Newcastle Univ.</i>	SaBPoT3.27
10:00-11:30 Effect of Grayanotoxin Deriver on Cultured Muscle Yamaki, Yuto* <i>Osaka Institute of Technology, Graduate School of Biomedical Eng</i> ; Uto, Sadahito <i>Graduate School of Engineering, Osaka Institute of Technology.</i>	SaBPoT3.10	10:00-11:30 New Clinically Friendly EHG Recording System Alberola-Rubio, Jose <i>Univ. Politècnica de València</i> ; Prats-Boluda, Gema* <i>Univ. Politècnica de València</i> ; Ye Lin, Yiyao <i>Univ. Politècnica de València</i> ; Bueno-Barrachina, Jose Manuel <i>Univ. Politècnica de València</i> ; Valero, Javier <i>Hospital Univ. y Politècnico La Fe</i> ; Perales, Alfredo <i>Hospital Univ. y Politècnico La Fe de Valencia</i> ; Garcia-Casado, Javier <i>Univ. Politècnica de València</i>	SaBPoT3.28
10:00-11:30 Microfluidic Platform for Versatile Gradient Generation and Single-Cell Migration Analysis Song, Jiyoung <i>Seoul National Univ.</i> ; Ryu, Hyunryul <i>Institute of Advanced Machinery and Design</i> ; Lee, Sungsik <i>ETH</i> ; Jeon, Noo Li* <i>Seoul National Univ.</i>	SaBPoT3.11	10:00-11:30 Biosensor Concept to Detect Breast Cancer Cells on the Basis of Impedance Spectroscopy Assisted by Magnetic Nanoparticles González, César A* <i>Instituto Politécnico Nacional</i>	SaBPoT3.29
10:00-11:30 Stability Improvement of Breathing Effort Signal in Capacitive In-Bed Cardiorespiratory Monitor by Automatic Gain Control Sakai, Hidenori <i>Tokyo Denki Univ.</i> ; Ueno, Akinori* <i>Tokyo Denki Univ.</i>	SaBPoT3.15	10:00-11:30 Vertical Electrodes based on Metal-Coated SU-8 Structures Kilchenmann, Samuel* <i>Swiss Federal Institute of Tech. Lausanne</i> ; Rollo, Enrica <i>Swiss Federal Institute of Tech. Lausanne</i> ; Guiducci, Carlotta <i>Swiss Federal Institute of Tech. Lausanne</i>	SaBPoT3.32
10:00-11:30 Improving ECG Settling Time after Transitory Electrical Interferences Diaz-Rodriguez, Laura* <i>Max Planck Institute for Dynamics and Self-organization</i> ; Luther, Stefan <i>Max Planck Institute for Dynamics and Self-Organization</i>	SaBPoT3.16	10:00-11:30 Update on Infant Cardiac Annunciator Le, Hoa <i>Michigan Technological Univ.</i> ; Neuman, Michael* <i>Michigan Technological Univ.</i>	SaBPoT3.34
		10:00-11:30 Electrical Characterization of Disposable and Lithographically Designed Electrodes Simsek, Fatma <i>Bogazici Univ.</i> ; Can, Osman Melih <i>Bogazici Univ.</i> ; Atasoy, Ahmet* <i>Bogazici Univ.</i> ; Ulgen, Yekta <i>Bogazici Univ.</i> ; Garipcan, Bora <i>Bogazici Univ.</i> ; Kuralay, Filiz <i>Ordu Univ.</i>	SaBPoT3.35

SaBPoT4: 10:00-11:30 5.LB1 Cardiovascular and Respiratory Systems Engineering (Poster Session)	Gold Room	10:00-11:30	SaBPoT4.11 The Relationship Between Arm-Position and Systolic Blood Pressure Estimation Obtained from Pulse Transit Time Maeda, Yuka* <i>Univ. of Tsukuba</i> ; Sekine, Masaki <i>Osaka Electro-Communication Univ.</i> ; Tamura, Toshiyo <i>Osaka Electro-Communication Univ.</i> ; Mizutani, Koichi <i>Univ. of Tsukuba</i>
10:00-11:30 Cardiovascular Adaptation to Chronic Hypoxia in Awake Rats Shibata, Masahiro* <i>Shibaura Institute of Technology</i> ; Hamashima, Saki <i>Shibaura Institute of Technology</i> ; Yamakoshi, Ken-ichi <i>Kanazawa Univ.</i>	SaBPoT4.1	10:00-11:30	SaBPoT4.12 The Development of Pulmonary Artery Input Impedance in Experimental Pulmonary Hypertension Nishikawa, Takuya* <i>Kyushu Univ.</i> ; Saku, Keita <i>Kyushu Univ.</i> ; Sakamoto, T. <i>Kyushu Univ.</i> ; Graduate School of Medical sciences; Sunagawa, K. <i>Kyushu Univ.</i>
10:00-11:30 A Patient-Specific Transfer Function based on a 1D Wave Propagation Model of the Arterial System Hametner, Bernhard* <i>AIT Austrian Institute of Tech.</i> ; Gerstenmayer, Anita <i>Vienna Univ. of Tech., Dept. for Analysis and Sci</i> ; Parragh, Stephanie <i>AIT Austrian Institute of Tech., Health & Environment Depar</i> ; Wassertheurer, Siegfried <i>AIT Austrian Institute of Tech., Health & Environment Depar</i>	SaBPoT4.2	10:00-11:30	SaBPoT4.13 Experimental Acute Inflammation Induces Sympatho-Excitation via the Resetting Baroreflex Neural Arc Tohyama, Takeshi* <i>Kyushu Univ.</i> ; Saku, Keita <i>Kyushu Univ.</i> ; Nishikawa, Takuya <i>Kyushu Univ.</i> ; Oga, Yasuhiro <i>Kyushu Univ.</i> ; Takehara, Takako <i>Kyushu Univ.</i> ; Akashi, Takuya <i>Kyushu Univ.</i> ; Kishi, Takuya <i>Kyushu Univ.</i> ; Graduate School of Medical sciences; Ide, T. <i>Kyushu Univ.</i> ; Sunagawa, K. <i>Kyushu Univ.</i>
10:00-11:30 Contactless Quantitative Detection of Regional Myocardial Ischemia using a High-Speed Camera Shiraishi, Yasuyuki* <i>Tohoku Univ.</i>	SaBPoT4.3	10:00-11:30	SaBPoT4.14 Baroreflex Activation Induced Sympathoinhibition Markedly Improves Hemodynamics in Rats with Reduced Ejection Fraction Oga, Yasuhiro* <i>Kyushu Univ.</i> ; Sakamoto, Takafumi <i>Kyushu Univ.</i> ; Saku, Keita <i>Kyushu Univ.</i> ; Tohyama, Takeshi <i>Kyushu Univ.</i> ; Nishikawa, Takuya <i>Kyushu Univ.</i> ; Murayama, Y. <i>Kyushu Univ.</i> ; Akashi, T. <i>Kyushu Univ.</i> ; Kishi, T. <i>Kyushu Univ.</i> ; Graduate School of Medical sciences; Sunagawa, K. <i>Kyushu Univ.</i>
10:00-11:30 Nonlinear Identification of the Total Baroreflex Arc: Chronic Hypertension Moslehpour, Mohsen <i>Michigan State Univ.</i> ; Kawada, Toru <i>Nat. Cerebral and Cardiovascular Center Res Inst</i> ; Sunagawa, Kenji <i>Kyushu Univ.</i> ; Sugimachi, Masaru <i>Natl Cardio Center Research Inst</i> ; Mukkamala, Ramakrishna* <i>Michigan State Univ.</i>	SaBPoT4.4	10:00-11:30	SaBPoT4.15 Mathematical Modeling of Extracorporeal CO2 Removal Simon, Habran* <i>Univ. of Liege</i> ; Desaive, Thomas <i>Univ. of Liege</i> ; Morimont, Philippe <i>Univ. Hospital of Liège</i> ; Lambermont, Bernard <i>Univ. of Liege</i> ; Dauby, Pierre <i>Univ. of Liege</i>
10:00-11:30 Improving the Accuracy of Manual Analysis of Respiratory Behavior by using Expectation-Maximization to Combine Results from Multiple Scorers Robles-Rubio, Carlos Alejandro* <i>McGill Univ.</i> ; Brown, Karen <i>McGill Univ.</i> ; Kearney, Robert Edward <i>McGill Univ.</i>	SaBPoT4.5	10:00-11:30	SaBPoT4.16 Evaluation of Arterial Stiffness by Analysis of Pulse Waveform at Carotid Artery Odahara, Takuya* <i>Doshisha Univ.</i> ; Saito, Masashi <i>Mulata Manufacturing Co.Ltd.</i> ; Asada, Takaaki <i>Mulata Manufacturing Co.Ltd.</i> ; Matsukawa, Mami <i>Doshisha Univ.</i>
10:00-11:30 Assessment of Two Non-Invasive Pulse Transit Times as Markers of Blood Pressure Gao, Mingwu <i>Michigan State Univ.</i> ; Chandrasekhar, Anand <i>Indian Institute of Technology Madras</i> ; Olivier, Bari <i>Michigan State Univ.</i> ; Mukkamala, Ramakrishna* <i>Michigan State Univ.</i>	SaBPoT4.6	10:00-11:30	SaBPoT4.17 Experimental Study on the Pressure Wave Propagation in Viscoelastic Tube Mimicking Vessels with Stenosis Ono, Shimpei* <i>Doshisha Univ.</i> ; Ghigo, Arthur <i>Univ. Paris 06</i> ; Lagrée, Pierre-Yves <i>UPMC</i> ; Matsukawa, Mami <i>Doshisha Univ.</i>
10:00-11:30 Respiratory Mechanics Evaluation during Non-Invasive Ventilation Leading to Optimal Ventilator Settings and Control Montecchia, Francesco* <i>Univ. of Rome "Tor Vergata"</i>	SaBPoT4.7	10:00-11:30	SaBPoT4.18 Percentage of Heart Failure and ESPVR Shoucri, Rachad M.* <i>Royal Military College of Canada</i>
10:00-11:30 Computational Design and in Vitro Evaluation of a Catheter-Based Intravascular Rotary Blood Pump for Assisting Renal Blood Circulation Sumikura, Hirohito* <i>National Cerebral and Cardiovascular Center Research Institute</i> ; Ohnuma, Kentaro <i>National Cerebral and Cardiovascular Center Research Institute</i> ; Hanada, Shigeru <i>Taisei Clinic</i> ; Tsukiya, Tomonori <i>National Cerebral and Cardiovascular Center Research Institute</i> ; Mizuno, Toshihide <i>National Cerebral and Cardiovascular Center Research Institute</i> ; Homma, Akihiko <i>Tokyo Denki Univ.</i> ; Mukaibayashi, Hiroshi <i>Iwaki Co., Ltd.</i> ; Kojima, Koichi <i>Iwaki Co., Ltd.</i> ; Takewa, Yoshiaki <i>Dept. of Artificial Organs, National Cerebral and Cardiovas</i> ; Tatsumi, Eisuke <i>Dept. of Artificial Organs, National Cerebral and Cardiovas</i>	SaBPoT4.8	10:00-11:30	SaBPoT4.19 Fine Grained Stress Assessment in Ecological Conditions Tânia, Pereira* <i>Telecommunications Institute, Univ. of Porto</i> ; Moreira, Tiago <i>Telecommunications Institute, Univ. of Porto</i> ; Almeida, Pedro <i>School of Criminology, Faculty of Law, Univ. of Porto, Port</i> ; Cunha, João Paulo Silva <i>Univ. of Porto and INESC TEC</i> ; Aguiar, Ana <i>Instituto de Telecomunicações, Porto</i>
10:00-11:30 Evaluation of Arterial Stiffness using Rebound Amplitudes in the Step Response Curve Wang, Jia-Jung* <i>I-Shou Univ.</i> ; Liu, Shing-Hong <i>Chaoyang Univ. of Technology, Taichung, Taiwan, ROC</i> ; Su, Chun Jen <i>Dept. of Electrical Engineering, National Cheng-Kung Univ.</i> ; Tseng, Wei-Kung <i>Dept. of Cardiology, E-Da Hospital</i>	SaBPoT4.9	10:00-11:30	SaBPoT4.20 Fetal Heart Rate in the Course of Delivery: Vaginal and C-Sections Argyri, Marina <i>Univ. of Ioannina</i> ; Gayraud, Nathalie Therese <i>Helene Univ. of Ioannina</i> ; Manis, George* <i>Univ. of Ioannina</i>
10:00-11:30 Application of SOBI for Noise Reduction of Rat Magnetocardiograms Higano, Sho* <i>Waseda Univ.</i> ; Yasuda, Shotaro <i>Waseda Univ.</i> ; Ishiyama, Atsushi <i>Waseda Univ.</i> ; Ono, Yumie <i>Meiji Univ.</i> ; Hatsukade, Yoshimi <i>Kinki Univ.</i>	SaBPoT4.10	10:00-11:30	SaBPoT4.21 Association among Creatinine Level, Ejection Fraction and Non-Linear HRV Indices in Myocardial Infarction Patients Italiano Monteiro, Clara <i>Cardiopulmonary Physiotherapy Lab, Federal Univ. of, Henriques, Jorge Univ. of Coimbra - NIF</i> ; Borghi-Silva, Audrey <i>Cardiopulmonary Physiotherapy Lab, Federal Univ. of, Trimer, Renata Cardiopulmonary Physiotherapy Lab, Federal Univ. of, Trimer, Vitor Cardiopulmonary Physiotherapy Lab, Federal Univ. of, Cabiddu, Ramona* Cardiopulmonary Physiotherapy Lab, Federal Univ. of</i>

10:00-11:30	SaBPoT4.22	SaBPoT5: 10:00-11:30	Gold Room
Influence of Meshing on Simulation of Left Ventricular Wall Motion Shimayoshi, Takao* <i>Kyoto Univ.</i> ; Ogawa, Takafumi <i>Kyoto Univ.</i> ; Matsuda, Tetsuya <i>Kyoto Univ.</i>		8.LB1 Biomechanics and Robotics (Poster Session)	
10:00-11:30	SaBPoT4.23	10:00-11:30	SaBPoT5.1
Mindfulness Training in High-Performance Groups: Preliminary Findings from a Heart Rate Variability Study Tarvainen, Mika* <i>Univ. of Eastern Finland</i> ; Kuoppa, Pekka <i>Univ. of Eastern Finland</i> ; Fonne, Vivianne <i>Institute of Aviation Medicine</i> ; Wagstaff, Anthony <i>Institute of Aviation Medicine</i> ; Meland, Anders <i>Institute of Aviation Medicine</i>		Estimation of Deltoid and Trapezius Muscle Activity during Reaching with and without an Arm Support using Musculoskeletal Modeling Essers, Johannes Maria Nicolaas* <i>Univ. of Maastricht</i> ; Murgia, Alessio <i>Univ. Medical Center Groningen, Univ. of Groningen</i> ; Bergsma, Arjen <i>Univ. of Twente</i> ; Meijer, Kenneth <i>NUTRIM School of Nutrition, Toxicology and Metabolism, Maastricht</i>	
10:00-11:30	SaBPoT4.24	10:00-11:30	SaBPoT5.2
Suppression of Angiogenesis by Electric Stimulation using Ultra-Flexible and Ultra-Thin Electrodes Inoue, Yusuke* <i>The Univ. of Tokyo</i> ; Sekino, Masaki <i>The Univ. of Tokyo</i> ; Yokota, Tomoyuki <i>The Univ. of Tokyo</i> ; Sekitani, Tsuyoshi <i>The Univ. of Tokyo</i> ; Saito, Itsuro <i>The Univ. of Tokyo</i> ; Isoyama, Takashi <i>The Univ. of Tokyo</i> ; Abe, Yusuke <i>The Univ. of Tokyo</i> ; Yambe, Tomoyuki <i>Tohoku Univ.</i> ; Someya, Takao <i>the Univ. of Tokyo</i>		Upper Limb Rehabilitation after Stroke using a Portable Haptic Robotic Device: Preliminary Results Mazzoleni, Stefano* <i>Scuola Superiore Sant'Anna</i> ; Battini, Elena <i>The BioRobotics Institute, Scuola Superiore Sant'Anna</i> ; Crecchi, Rossella <i>Auxilium Vitae Hospital</i> ; Posteraro, Federico <i>Auxilium Vitae Hospital</i>	
10:00-11:30	SaBPoT4.25	10:00-11:30	SaBPoT5.3
RiaMec – Automatic Mechanical Resuscitator for Catheterism Room Tavilla, Agatino Christian* <i>Univ. of Applied Sciences and Arts of Southern Switzerland</i> ; Stefanini, Igor <i>Univ. of Applied Sciences and Arts of Southern Switzerland</i>		An Index for the Evaluation of 3D Masticatory Cycles Variability Zago, Matteo* <i>Univ. degli Studi di Milano</i> ; Ferreira, Claudia Lucia Pimenta <i>Univ. degli Studi di Milano</i> ; Rusconi, Francesca Maria Emilia <i>Univ. degli Studi di Milano</i> ; De Felicio, Claudia Maria <i>Univ. of São Paulo</i> ; Sforza, C. <i>Univ. degli Studi di Milano</i>	
10:00-11:30	SaBPoT4.26	10:00-11:30	SaBPoT5.4
Development of a Lung Simulator to Study Normal and Abnormal Breathing Conditions Liang, Jiu-Xing <i>School of Engineering, Sun Yat-Sen Univ.</i> ; Li, Jia-Quan <i>School of Engineering, Sun Yat-Sen Univ.</i> ; Luo, Yu-Xi* <i>Sun Yat-Sen Univ.</i> ; Chen, Jian-Hua <i>School of Engineering, Sun Yat-Sen Univ.</i> ; Sun, Fei-Fei <i>Sun Yat-Sen Univ. Cancer Center</i> ; Li, Shuai <i>School of Engineering, Sun Yat-Sen Univ.</i>		Suggestion of Novel Actuator for Assistive and Rehabilitative Device of the Elderly and People with Disability Kim, Kyung* <i>Chonbuk National Univ. Automobile-Parts & Mold Technology I</i> ; Kim, Jae Jun <i>Chonbuk National Univ. Automobile-Parts & Mold Technology I</i> ; Chong, Woo-Suk <i>Chonbuk National Univ. Automobile-Parts & Mold Technology I</i> ; Kim, Je-Nam <i>Chonbuk National Univ. Automobile-Parts & Mold Technology I</i> ; Yu, Chang-Ho <i>Chonbuk National Univ.</i> ; Kwon, Taekyu <i>Chonbuk National Univ.</i>	
10:00-11:30	SaBPoT4.27	10:00-11:30	SaBPoT5.5
Lumped-Parameter Modeling of Cardiac Longitudinal Function Maksuti, Elira* <i>School of Technology and Health, KTH Royal Institute of Technolo</i> ; Carlsson, Marcus <i>Dept. of Clinical Physiology, Clinical Sciences, Lund Univ.</i> ; Arheden, Håkan <i>Dept. of Clinical Physiology, Clinical Sciences, Lund Univ.</i> ; Ugander, Martin <i>Dept. of Molecular Medicine and Surgery, Karolinska Institut</i> ; Broomé, Michael <i>Dept. of Medical Engineering, School of Technology and Heal</i>		Influence of TRUCT Braille Character Distance Ratio on Readability of TRUCT Braille for Beginner Braille Reader Doi, Kouki* <i>National Institute of Special Needs Education</i> ; Nishimura, Takahiro <i>National Institute of Special Needs Education</i> ; Kawano, Masaru <i>National Institute of Special Needs Education</i> ; Umehara, Yumi <i>Waseda Univ.</i> ; Matsumori, Harumi <i>Waseda Univ.</i> ; Fujimoto, Hiroshi <i>Waseda Univ.</i> ; Wada, Tsutomu <i>Japan Braille Library</i> ; Sawada, Mayumi <i>National Institute of Special Needs Education</i> ; Tanaka, Yoshihiro <i>National Institute of Special Needs Education</i> ; Kaneko, Takeshi <i>National Institute of Special Needs Education</i> ; Kanamori, Katsuhiro <i>National Institute of Special Needs Education</i> ; Takei, Masumi <i>Research Collaborator of NISE</i>	
10:00-11:30	SaBPoT4.28	10:00-11:30	SaBPoT5.6
Cardiovascular Strain and Autonomic Imbalance in Neurosurgeons de Oliveira Pimentel, Gonçalo* <i>Faculty of Engineering Univ. of Porto</i> ; Vilarinho, António S. <i>Joao Univ. Hospital</i> ; Vaz, Rui S. <i>João Univ. Hospital</i> ; Cunha, João Paulo Silva <i>Univ. of Porto and INESC TEC</i>		Anthropomorphic Dexterous Prosthetic Hand: Mechanical Design Atasoy, Ahmet <i>Bogazici Univ.</i> ; Cotur, Yasin <i>Bogazici Univ.</i> ; Toptas, Ersin <i>Marmara Univ.</i> ; Kuchimov, Shavkat <i>Bogazici Univ.</i> ; Kaplanoglu, Erkan <i>Marmara Univ.</i> ; Takka, Semih <i>Academic Hospital</i> ; Ozkan, Mehmed* <i>Bogazici Univ.</i>	
10:00-11:30	SaBPoT4.29	10:00-11:30	SaBPoT5.7
Simulation of Right Ventricular Failure in Patients with Left Ventricular Assist Device Maksuti, Elira* <i>School of Technology and Health, KTH Royal Institute of Technolo</i> ; Broomé, Michael <i>Dept. of Medical Engineering, School of Technology and Heal</i>		Underwater Surface Reconstruction of Narrow Space by Endoscope and Optical Fiber: Application to Minimally Invasive Surgery Long, Z.* <i>Univ. of Fukui</i> ; Nagamune, K. <i>Univ. of Fukui, Japan</i>	
10:00-11:30	SaBPoT4.30	10:00-11:30	SaBPoT5.8
Effects of Cellular Anisotropy on Cardiac Biological Pacemaker Activity Duverger, James Elber <i>Montreal Heart Institute</i> ; Jacquemet, Vincent <i>Univ. de Montréal</i> ; Vinet, Alain <i>Univ. de Montréal</i> ; Comtois, Philippe* <i>Univ. of Montreal and Montreal Heart Institute</i>		Assessing the Quality and Symmetry of the Interface Stiffness between Above-Knee Amputees and Prostheses Fey, Nicholas* <i>The Rehabilitation Institute of Chicago</i> ; Kuiken, Todd <i>Rehabilitation Institute of Chicago</i>	
10:00-11:30	SaBPoT4.31	10:00-11:30	SaBPoT5.9
Dynamic Left Ventricular Time-Varying Elastance Palladino, Joseph* <i>Trinity College</i>		Development of Haptic Pin-Display for Tactile Map Users Shimada, Shigenobu* <i>Tokyo Metropolitan Industrial Technology Research Institute</i> ; Shimojo, Makoto <i>The Univ. of Electro-Communications</i> ; Ino, Shuichi <i>National Institute of Advanced Industrial Science and Technology</i>	

- 10:00-11:30 SaBPoT5.10
Wireless Gait Monitoring System
 Kim, Choong Hyun* *Korea Institute of Science and Technology*;
 Lee, Chang Min *Korea Institute of Science and Technology*;
 Park, Ji Su *Korea Institute of Science and Technology*
- 10:00-11:30 SaBPoT5.11
Simulation of Knee-Locked Walking for Designing Powered Orthosis
 Obinata, Goro* *Chubu Univ.*; Mizumoto, Ryota *Nagoya Univ.*;
 Lee, Jaeryoung *Chubu Univ.*; Genda, Eiichi *Rosai Rehabilitation Engineering Center*; Hase, Kazunori *Tokyo Metropolitan Univ.*
- 10:00-11:30 SaBPoT5.12
Reversing Weight-Perception in Motion on Slope
 Zintus-art, Kalanyu* *Tokyo Institute of Technology*; Kambara, Hiroyuki *Tokyo Institute of Technology*; Shin, Duk *Tokyo Institute of Technology*; Yoshimura, Natsue *Tokyo Institute of Technology*; Koike, Yasuharu *Tokyo Institute of Technology*
- 10:00-11:30 SaBPoT5.13
Influence of Tactile Vibration Stimuli in Human Fingertips on Inducing Slip Sensation during Deformation of Finger Pad
 Umesawa, Yumi* *Waseda Univ.*; Doi, Kouki *National Institute of Special Needs Education*; Fujimoto, Hiroshi *Waseda Univ.*
- 10:00-11:30 SaBPoT5.14
Multi-Joint Isokinetic Exercise Targeting a Specific Lower Limb Muscle Group by using a Robotic Device
 Kim, Kyoungsoo *Sogang Univ., Seoul*; Hwang, Beomsoo *Sogang Univ.*; Jeon, Doyoung* *Sogang Univ., Seoul*
- 10:00-11:30 SaBPoT5.16
Classification of Fingers and Forearm Motions using Electromyogram and Forearm Shape Changes
 Kamei, Yuhei* *Kinki Univ.*; Sanada, Makoto *Kinki Univ.*; Okada, Shima *Faculty of Science and Engineering, Kinki Univ.*
- 10:00-11:30 SaBPoT5.17
Muscle Activity based on Knee Alignment during Walking
 Saga, Norihiko* *Kwansei Gakuin Univ.*; Nakanishi, Yasutaka *Kwansei Gakuin Univ.*
- 10:00-11:30 SaBPoT5.19
Quantitative Evaluation of Muscle Tonus in Rats with Medial and Bilateral Cerebellar Ablation
 Shiraishi, Sho* *The Univ. of Tokyo*; Takakusaki, Kaoru *Asahikawa Medical Univ.*; Chiba, Ryosuke *Asahikawa Medical Univ.*; Ota, Jun *The Univ. of Tokyo*
- 10:00-11:30 SaBPoT5.20
Design of Training System using Smart Driving and Body-Weight Support Function for Gait and Postural Capability
 Kim, Jae Jun *Chonbuk National Univ. Automobile-Parts & Mold Tech. I*; Kim, Kyung* *Chonbuk National Univ. Automobile-Parts & Mold Tech. I*; Kim, Jae-Won *Chonbuk National Univ. Automobile-Parts & Mold Tech. I*; Kim, Je-Nam *Chonbuk National Univ. Automobile-Parts & Mold Tech. I*; Chong, Woo-Suk *Chonbuk National Univ. Automobile-Parts & Mold Tech. I*; Song, Seong-Mi *Chonbuk National Univ.*; Yu, Chang-Ho *Chonbuk National Univ.*; Kwon, Taekyu *Chonbuk National Univ.*; Song, Won-Kyung *National Rehabilitation Center*
- 10:00-11:30 SaBPoT5.21
Estimation of Contact Region during Grasping from Individual Hand Model and Motion Capture Data
 Nohara, Ryuki* *Tokyo Univ. of Science*; Endo, Yui *National Institute of Advanced Industrial Science and Technology*; Tada, Mitsunori *National Institute of Advanced Industrial Science and Technology*; Takemura, Hiroshi *Tokyo Univ. of Science*
- 10:00-11:30 SaBPoT5.22
Estimation of the Maximum Pinch Force from Subject-Specific Musculoskeletal Hand Model
 Kondo, Masaya* *Nara Institute of Science and Technology*;
 Tada, Mitsunori *National Institute of Advanced Industrial Science and Technology*; Kurita, Yuichi *Hiroshima Univ.*;
 Ogasawara, Tsukasa *Nara Institute of Science and Technology*
- 10:00-11:30 SaBPoT5.23
Evaluation of the Body Sway of Bipedally Standing Rat with Cerebellar Dysfunction
 Noro, Sekiya *The Univ. of Electro-Communications*; Funato, Tetsuro* *The Univ. of Electro-Communications*; Sato, Yota *The Univ. of Electro-Communications*; Sato, Yamato *Teikyo Heisei Univ.*; Yanagihara, Dai *The Univ. of Tokyo*; Aoi, Shinya *Kyoto Univ.*; Tsuchiya, Kazuo *Kyoto Univ.*
- 10:00-11:30 SaBPoT5.24
An Innovative Laparoscopic Instrument Evaluated by SEMG Analysis
 Dufaug, Amandine* *Univ. Savoie Mont Blanc, SYMME, Annecy*;
 Goujon, Laurent *Univ. Savoie Mont Blanc, SYMME, Annecy*;
 Barthod, Christine *Univ. Savoie Mont Blanc - SYMME*;
 Forestier, Nicolas *Univ. Savoie Mont Blanc, LPE, Le Bourget du Lac*; Skowron, Olivier *Centre Hospitalier Annecy Genevois*
- 10:00-11:30 SaBPoT5.25
Ascending Stair Recognition using Depth Sensing for Improved Intent Recognition of Lower Limb Prostheses
 Krausz, Nili Eliana *Northwestern Univ.*; Lenzi, Tommaso* *Rehabilitation Institute of Chicago*; Hargrove, Levi *Rehabilitation Institute of Chicago*
- 10:00-11:30 SaBPoT5.26
Comparison of an Expert and Non-Experts in Standing up Guidance
 Tamei, Tomoya* *Nara Institute of Science and Technology*;
 Shibata, Tomohiro *Kyushu Institute of Technology*; Ikeda, Kazushi *Nara Institute of Science and Technology*
- 10:00-11:30 SaBPoT5.27
Transcutaneous Electrical Stimulation in Forearm Nerves for Tactile Feedback in Prosthetics Usage
 Germany Morrison, Enrique Ignacio* *Univ. de Concepción*;
 Pino, Esteban J *Univ. de Concepcion*; Aqueveque, Pablo *Univ. de Concepcion*
- 10:00-11:30 SaBPoT5.28
Ground Collision-Free Motion for Gait Rehabilitation
 Hong, Jisoo *Seoul National Univ.*; Chun, Changmook* *Korea Institute of Science and Technology*; Kim, Seung-Jong *Korea Institute of Science and Technology*; Park, Frank Chongwoo *Seoul National Univ.*
- 10:00-11:30 SaBPoT5.29
Sensing Elasticity using Step-Out Vibration of Stepper Motor
 Kawai, Toshikazu* *Osaka Institute of Tech.*; Sasaki, Yusuke *Osaka Institute Tech.*; Morita, Yusuke *Doshisha Univ.*; Fujiwara, Masao *Faculty of Medicine, Kagawa Univ.*; Yamamoto, Naoki *Faculty of Medicine, Kagawa Univ.*; Suzuki, Yasuyuki *Dept. of Gastroenterological Surgery, Faculty of Medicine*,
- 10:00-11:30 SaBPoT5.30
Slipping Characteristics of Multichannel Flexible Tactile Sensor Applicable for a Robot Finger
 Tsutsui, Hiroshi* *Osaka Institute of Technology*; Kobayashi, Hiroyuki *Osaka Institute of Technology*
- 10:00-11:30 SaBPoT5.32
Development of a Small Vehicle Active Safety System for Transportation Vulnerable
 Kim, Chang Won* *KIMM*; Kim, JungGi *Korea Institute of Machinery & Materials*; Ye, Kanghyun *Keimyung Univ., Mechanical Eng.*;
 Park, Seung Gyu *Keimyung Univ., Mechanical Eng.*
- 10:00-11:30 SaBPoT5.33
The Face Tracking System for Rehabilitation Robots
 Raif, Pawel *Silesian Univ. of Technology, Faculty of Biomedical Enginee*; Tkacz, Ewaryst* *Silesian Univ of Tech, Faculty of Biomedical Engineering*
- 10:00-11:30 SaBPoT5.34
Estimation of Prosthetic Knee Actuation System Requirements
 Awad, Mohammed Ibrahim* *Univ. of Leeds*; Abouhossein, Alireza *Univ. of Leeds*; Dehghani-Sanij, Abbas A. *Univ. of Leeds*; Richardson, Robert *Univ. of Leeds*; Querin, Osvaldo M. *Univ. of Leeds*; Moser, David *Chas A Blatchford & Sons Ltd*; Zahedi, Saeed *Chas A Blatchford & Sons Ltd*

- 10:00-11:30 SaBPoT5.35
Selective Control of Mobile Microrobots with Light Fields
 Palagi, Stefano* *Max Planck Institute for Intelligent Systems*; Mark, Andrew G. *Max Planck Institute for Intelligent Systems*; Melde, Kai *Max Planck Institute for Intelligent Systems*; Zeng, Hao *European Laboratory for Non Linear Spectroscopy (LENS)*; Parmeggiani, Camilla *European Laboratory for Non Linear Spectroscopy (LENS)*; Martella, Daniele *European Laboratory for Non Linear Spectroscopy (LENS)*; Wiersma, Diederik S. *European Laboratory for Non Linear Spectroscopy (LENS)*; Fischer, Peer *Max Planck Institute for Intelligent Systems*
- 10:00-11:30 SaBPoT5.36
White Matter Tract-Following with Flexible Needles for Targeting Subcortical Structures
 Lehocky, Craig A.* *Carnegie Mellon Univ.*; Engh, Johnathan *Univ. of Pittsburgh*; Riviere, Cameron N. *Carnegie Mellon Univ.*
- 10:00-11:30 SaBPoT5.37
Musculoskeletal Motion Analysis of Thumb: A Cadaveric Study
 Tada, Mitsunori* *National Institute of Advanced Industrial Science and Technology*; Kawano, Yusuke *Keio Univ. Dept. of Orthopedic Surgery*; Nakamura, Toshiyasu *Clinical Research Center, International Univ. of Health and*; Sueda, Shinjiro *California Polytechnic State Univ.*; Pai, Dinesh K. *UBC*
- 10:00-11:30 SaBPoT5.38
Embedded Phase Estimation in Finite State Control for Above-Knee Prosthesis using Magnetorheological (MR) Damper
 Yilmaz, Atila* *Hacettepe Univ.*; Sadeghimorad, Amirahadi *Hacettepe Univ.*; Orhanli, Tuna *Hacettepe Univ.*; Sahin, Ismail *Sakarya Univ.*
- 10:00-11:30 SaBPoT5.39
Development of Vocal Cords of an Infant-Like Vocal Robot based on Anatomical Structure
 Kojima, Tomoki *Osaka Univ.*; Endo, Nobutsuna* *Osaka Univ.*; Kojima, Tomohiro *Osaka Univ.*; Asada, Minoru *Osaka Univ.*
- 10:00-11:30 SaBPoT5.40
Quantitative Biomechanical Kinetic Analysis of Transient Body Behavior during Lateral-Directional Motion of Vehicle Occupant
 Hayashi, Yuichiro* *Tokyo Metropolitan Univ.*; Hase, Kazunori *Tokyo Metropolitan Univ.*; Takehara, Shoichiro *Sophia Univ.*; Torigaki, Toshikazu *Nissan Motor Co., LTD.*; Hirao, Akinari *Nissan Motor Co., LTD.*; Kudo, Yoshihiro *Graduate School, Tokyo Metropolitan Univ.*; Yamamoto, Yusuke *Graduate School, Tokyo Metropolitan Univ.*
- SaBPoT6: 10:00-11:30 Gold Room
6.LB1 Neural and Rehabilitation Engineering (Poster Session)
- 10:00-11:30 SaBPoT6.1
The Effects of Tactor Location on Vibrotactile Stimulation Reaction Times in Healthy Adults
 Bao, Tian *Univ. of Michigan*; Su, Lydia *Univ. of Michigan*; Kinnaird, Catherine *Univ. of Michigan*; Shull, Peter B. *Shanghai Jiao Tong Univ.*; Sienko, Kathleen H.* *Univ. of Michigan*
- 10:00-11:30 SaBPoT6.2
Neurobot System "Vitroid" as a Model for Small Brain Circuit
 Kudoh, Suguru* *Kwansei Gakuin Univ.*; Minoshima, Wataru *Kwansei Gakuin Univ.*; Ito, Hidekatsu *Kwansei Gakuin Univ.*
- 10:00-11:30 SaBPoT6.3
Acute Peripheral Nerve Signal Recording using Flexible Penetrating Microelectrode Array Integrated with Interconnection Cable
 Byun, Donghak *Gwangju Institute of Science and Technology*; Oh, Keonghwan *Gwangju Institute of Science and Technology*; Yoo, Minsu *Gwangju Institute of Science and Technology*; Song, Kang-II *Korea Institute of Science and Technology*; Min, Joongkee *Biomedical Center, Asan medical Center*; Kim, Sohee* *Gwangju Institute of Science and Technology*
- 10:00-11:30 SaBPoT6.4
Field Distribution Model of Transcranial Static Magnetic Stimulation
 Kroch, Gabriel Moshe *Duke Univ.*; Goetz, Stefan *Duke Univ.*; Bernabei, John *Duke Univ.*; Deng, Zhi-De *Duke Univ.*; Lee, Won Hee *Columbia Univ.*; Peterchev, Angel V* *Duke Univ.*
- 10:00-11:30 SaBPoT6.5
Anti-Oxidant Coatings Improve Intracortical Microelectrode Performance
 Keene, Jennifer *Case Western Reserve Univ.*; Capadona, Jeffrey* *Case Western Reserve Univ.*
- 10:00-11:30 SaBPoT6.6
Brain-Computer Interface based on Somatosensory Evoked Potential using Braille Display
 Hori, Junichi* *Niigata Univ.*
- 10:00-11:30 SaBPoT6.7
Quantitative Analysis of Human Reliability on Pseudo-"Blindsight" Caused by ELF Magnetic Stimuli
 Nakagawa, Hidenori* *Tokyo Denki Univ.*; Ueno, Shoogo *Kyushu Univ.*
- 10:00-11:30 SaBPoT6.8
Effects of Reward and Penalty Associated with Driving Performance on Maintenance of Car Driver's Alertness
 Kondo, Yuki *Chubu Univ.*; Hirata, Yutaka* *Chubu Univ., College of Eng*
- 10:00-11:30 SaBPoT6.9
Detection of Motion Aftereffect Direction Specific Response using Steady-State Visual Evoked Potentials
 Arimitsu, Shiori* *Waseda Univ.*; Momose, Keiko *Waseda Univ.*
- 10:00-11:30 SaBPoT6.10
Development of Game Controller for Voice Output Game System
 Kawachi, Ryosuke* *Faculty of Medical Technology, Niigata Univ. of Health and*; Niikawa, Takuya *Osaka Electro-Communication Univ.*; Maeda, Yoshinobu *Niigata Univ.*
- 10:00-11:30 SaBPoT6.11
Inter-Hemispheric Neural Excitations of Visual Cortices in Response to Electrical Microstimuli in Mice in Vivo
 Futami, Shigetoshi *Grad. Eng., Osaka Univ.*; Fehevari, Tamas *Osaka Univ.*; Yagi, Tetsuya *Osaka Univ., Gard. Eng.*; Hayashida, Yuki* *Osaka Univ.*
- 10:00-11:30 SaBPoT6.12
Relevance of Whole-Body Inertial Properties and Gait in Swing Control during Stair Ascending
 Tanabe, Tomoka* *Univ. of Toyama*; Sekimoto, Masahiro *Univ. of Toyama*; Inoue, Koh *Kagawa Univ.*; Wada, Takahiro *Ritsumeikan Univ.*; Hobara, Hiroaki *Japan Society for the Promotion of Science*; Kimura, Hiroyuki *Univ. of Toyama*
- 10:00-11:30 SaBPoT6.13
Assessment of Users' Cognitive Engagement during Passive and Active Exercises for Neurorehabilitation using NIRS
 Han, Chang-Hee *Hanyang Univ.*; Hwang, Han-Jeong *Technical Univ. of Berlin*; Lim, Jeong-Hwan *Hanyang Univ.*; Im, Chang-Hwan* *Hanyang Univ.*
- 10:00-11:30 SaBPoT6.14
An Emergency Call System for Patients with Severe ALS using Less-Stimulating SSVEP-Based Brain Switch
 Lim, Jeong-Hwan *Hanyang Univ.*; Kim, Yong-Wook *Hanyang Univ.*; Han, Chang-Hee *Hanyang Univ.*; Cha, Ho-Seung *Hanyang Univ.*; Im, Chang-Hwan* *Hanyang Univ.*
- 10:00-11:30 SaBPoT6.15
EEG-Based Neurocinematics: Potential Brain Indices for Rating Films
 Cha, Ho-Seung *Hanyang Univ.*; Chang, Won-Du *Hanyang Univ.*; Shin, Young-Seok *Hanyang Univ.*; Jang, DongPyo *Hanyang Univ.*; Im, Chang-Hwan* *Hanyang Univ.*

- 10:00-11:30 SaBPoT6.16
Feature Extraction Methods using Lower-Limb Electromyogram Signals for Intention Recognition of Gait Initiation
 Chung, Sang Hun *Korea Institute of Science and Tech.*; Kim, Yeonghun *Korea Institute of Science and Tech.*; Kim, Hyungmin *Korea Institute of Science and Tech.*; Hwang, Yoha *Korea Institute of Science and Tech.*; Kim, Seung-Jong *Korea Institute of Science and Tech.*; An, Jinung *DGIST*; Lee, Jong Min* *Korea Institute of Science and Tech.*
- 10:00-11:30 SaBPoT6.17
Partial Anisotropy in an Anatomically Realistic Volume Conductor Model of Deep Brain Stimulation in the Hemiparkinsonian Rat
 Böhme, Andrea* *Univ. of Rostock*; Schmidt, Christian *Univ. of Rostock*; van Rienen, Ursula *Univ. of Rostock*
- 10:00-11:30 SaBPoT6.18
Simple Patterning Method for Auto-Synapse Development in Array
 Sangcheol, Na *Multiscale Mechanical Design, School of Mechanical and Aerospace*; Bang, Seokyoung *Seoul National Univ.*; Jang, Jae Myung *Seoul National Univ.*; Jeon, Noo Li* *Seoul National Univ.*
- 10:00-11:30 SaBPoT6.19
Neural Correlates of Relevant Stimuli Processing for Brain Computer Interfaces
 Acqualagna, Laura* *Berlin Institute of Technology*; Blankertz, Benjamin *Technische Univ. Berlin*
- 10:00-11:30 SaBPoT6.20
Muscle Synergies and Kinematics in Subjects with Multiple Sclerosis
 Pellegrino, Laura* *Univ. of Genoa*; Coscia, Martina *TNE Lab Ecole Polytechnique Federale de Lausanne*; Muller, Margit *Ospedale P.A. Micone ASL3, Genoa*; Solaro, Claudio *Ospedale P.A. Micone ASL3, Genoa*; Casadio, Maura *Univ. of Genova*
- 10:00-11:30 SaBPoT6.21
Posture Control Strategy Analysis on Movable Declined Floor
 Chiba, Ryosuke* *Asahikawa Medical Univ.*; Takakusaki, Kaoru *Asahikawa Medical Univ.*; Ota, Jun *The Univ. of Tokyo*
- 10:00-11:30 SaBPoT6.22
Changes in the Timing of Muscle Activations during Exoskeleton-Assisted Gait
 De Luca, Alice* *Dept. of Informatics, Bioengineering, Robotics and System E*; Loporati, Fabio *Dept. of Informatics, Bioengineering, Robotics and System E*; Lentino, Carmelo *Recovery and Functional Reeducation Unit, Santa Corona Hospital*; Checchia, Giovanni Antonio *Recovery and Functional Reeducation Unit, Santa Corona Hospital*; Leoncini, Clara *Spinal Cord Unit, Santa Corona Hospital, ASL2 Savonese, Pietra L*; Mandraccia, Sergio *Spinal Cord Unit, Santa Corona Hospital, ASL2 Savonese, Pietra L*; Rossi, Laura *Spinal Cord Unit, Santa Corona Hospital, ASL2 Savonese, Pietra L*; Gamba, Simona *Spinal Cord Unit, Santa Corona Hospital, ASL2 Savonese, Pietra L*; Massone, Antonino *Spinal Cord Unit, Santa Corona Hospital, ASL2 Savonese, Pietra L*; Casadio, Maura *Univ. of Genova*
- 10:00-11:30 SaBPoT6.23
Animation Effects Challenge Intention Decoding from EEG in Active Visual Search
 Uscumlic, Marija* *Technische Univ. Berlin*; Blankertz, Benjamin *Technische Univ. Berlin*
- 10:00-11:30 SaBPoT6.24
Recruitment Thresholds of Electrically Elicited MUs in the Dominant and Nondominant Biceps Brachii Muscle: Preliminary Results
 Peixoto Pinto, Talita* *Politecnico di Torino*; Botter, Alberto *Politecnico di Torino*; Vieira dos Anjos, Fabio *Politecnico di Torino*; Vieira, Taian *Politecnico di Torino*
- 10:00-11:30 SaBPoT6.25
Learning an Internal Model of Myoelectric Prostheses to Improve Accuracy of Grasping Force: The Importance of a Vibrotactile Feedback
 De Nunzio, Alessandro Marco* *Otto Bock HealthCare GmbH*; Lemling, Sabrina *Otto Bock HealthCare GmbH*; Markovic, Marko *Otto Bock HealthCare GmbH, Duderstadt*; Dosen, Strahinja *Univ. Medical Center, UMG, Goettingen*; Schweisfurth, Meike Annika *Dept. of Neurorehabilitation Engineering, Univ. Medici*; Hartmann, Cornelia *Univ. Medical Center Göttingen*; Graimann, Bernhard *Otto Bock Healthcare GmbH*; Farina, Dario *Bernstein Center for Computational Neuroscience, Univ. Medic*
- 10:00-11:30 SaBPoT6.26
Inhibition of Innate Immune Receptors to Enhance Intracortical Microelectrode Integration and Stability
 Hermann, John* *Case Western Reserve Univ., L. Stokes Cleveland VA Medical*; Ravikumar, Madhumitha *Case Western Reserve Univ.*; Capadona, Jeffrey *Case Western Reserve Univ.*
- 10:00-11:30 SaBPoT6.27
A Method for Recording Electroencephalography during Cyclical Movements with a Motion Platform
 Schlink, Bryan* *Univ. of Michigan*; Oliveira, Anderson *Univ. of Michigan*; Jacobs, Daniel *Univ. of Michigan*; König, Peter *Univ. Osnabrück*; Hairston, W. David *US Army Research Laboratory*; Ferris, Daniel *Univ. of Michigan*
- 10:00-11:30 SaBPoT6.28
ERD Detection Rate Increases When using EEG between Ear and Scalp
 Adachi, Shinobu* *Panasonic Corp.*; Bounyong, Souksakhone *Panasonic Corp.*; Ozawa, Jun *Panasonic Corp.*
- 10:00-11:30 SaBPoT6.29
Modelling of Different Locomotion Patterns of C. Elegans
 Skandari, Roghieh* *The Univ. of Melbourne*; Iino, Yuichi *Univ. of Tokyo*; Manton, Jonathan *The Univ. of Melbourne*
- 10:00-11:30 SaBPoT6.30
Correlation between Sleep Spindles and Sleep Structure
 Choi, Sangho *Seoul National Univ.*; Yoon, Heenam *Seoul National Univ.*; Jung, Dawoon *Seoul National Univ.*; Han, Chung Min *Seoul National Univ.*; Hwang, Suhwan *Seoul National Univ.*; Joo, Kwangmin *Seoul National Univ.*; Choi, Jaewon *Seoul National Univ. Hospital*; Lee, Yujin *Seoul National Univ. Hospital*; Jeong, Do-Un *Seoul National Univ. Hospital*; Park, Kwang S.* *Seoul National Univ.*
- 10:00-11:30 SaBPoT6.31
Influence of Noisy Reference Signals on Selective Attention Decoding
 Aroudi, Ali* *Univ. of Oldenburg, Dept. of Medical Physics and Acoustics*; Mirkovic, Bojana *Univ. of Oldenburg*; De Vos, Maarten *Univ. of Oxford*; Doclo, Simon *Univ. of Oldenburg*
- 10:00-11:30 SaBPoT6.32
Predicting Clinical Dyskinesia Scores from Head Motion Tracking
 Li, Michael Hong Gang* *Univ. of Toronto*; Ashraf, Ahmed *Univ. of Toronto*; Mestre, Tiago *Ottawa Hospital Research Institute*; Fox, Susan *Univ. of Toronto*; Taati, Babak *Toronto Rehabilitation Institute and Univ. of Toronto*
- 10:00-11:30 SaBPoT6.33
Which Type of Visual Stimuli is Effective to Judgement the Direction? Using fMRI
 Tsumagari, Yuko* *Nara Institute of Science and Tech. and Fujimoto General Ho*; Kodabashi, Atsushi *Fujimoto Hayasuzu Hospital, Yokakai Association*; Fujimoto, Toshiro *Fujimoto Hayasuzu Hospital*; Sato, Tetsuo *Nara Inst of Science & Tech*; Kanaya, Shigehiko *Nara Institute of Science and Tech.*; Tamura, Toshiyo *Osaka Electro-Communication Univ.*; Kuwahara, Noriaki *Kyoto Institute of Tech.*
- 10:00-11:30 SaBPoT6.34
Binarized Event-Related Potentials
 Horie, Ryota* *Shibaura Institute of Technology*; Noriki, Ito *The Univ. of Electro-Communications*

- 10:00-11:30 SaBPoT6.35
Laminar Pattern Classification of Beta Oscillation Recorded from the Motor Cortex with a Chronic 3D Electrode Array
 Qian, Kai *Illinois Institute of Technology*; Balasubramanian, Karthikeyan *Univ. of Chicago*; Hatsopoulos, Nicholas *Univ. of Chicago*; Takahashi, Kazutaka* *Univ. of Chicago*
- 10:00-11:30 SaBPoT6.36
Semiautomatic Analysis of Images for Preventive Evaluation of Foot Condition on Infants through Biometric Proportion Index
 Gutierrez, Christopher A. *Univ. de Concepción*; Ulloa, Marco A. *Univ. de Concepción*; Germany Morrison, Enrique Ignacio *Univ. de Concepción*; Aqueveque, Pablo *Univ. of Concepcion*; Pino, Esteban J* *Univ. de Concepcion*
- 10:00-11:30 SaBPoT6.37
A Development of the Robot Hand Grasping Force Display Which Supports the Disability
 Iwaki, Tomohiro* *Tokai Univ.*; Magatani, Kazushige *Tokai Univ.*
- 10:00-11:30 SaBPoT6.38
Pharmacologically Induced Laminar Oscillations Recorded in Vivo using 3D Arrays
 Smith, Graham *Univ. of Chicago*; Balasubramanian, Karthikeyan* *Univ. of Chicago*; Takahashi, Kazutaka *Univ. of Chicago*; Hatsopoulos, Nicholas *Univ. of Chicago*
- 10:00-11:30 SaBPoT6.39
Detection of Neuromuscular Response in Gait Perturbation: A Potential Application in Overground Gait Rehabilitation
 Choi, Junhyuk *Korea Institute of Science and Technology*; Chung, Sang Hun *Korea Institute of Science and Technology*; Kim, Yeonghun *Korea Institute of Science and Technology*; Kang, Hyolim *Korea Institute of Science and Technology*; Lee, Jong Min *Korea Institute of Science and Technology*; Kim, Seung-Jong *Korea Institute of Science and Technology*; Kim, Hyungmin* *Korea Institute of Science and Technology*
- 10:00-11:30 SaBPoT6.40
The Effect of Mechanical Vestibular Stimulation on Electromyography Onset in a Child with Cerebral Palsy: A Case Study
 Androwis, Ghaith* *Kessler Foundation, and New Jersey Institute of Tech.*; Michael, Peter *New Jersey Institute of Tech.*; Jewaid, Darine *New Jersey Institute of Tech.*; Nolan, Karen *Human Performance and Engineering Laboratory (Kessler Foundation)*; Pilkar, Rakesh *Kessler Foundation / UMDNJ*; Strongwater, Allan *St. Joseph's Regional Medical Center*; Foulds, Richard *New Jersey Institute of Tech.*
- 10:00-11:30 SaBPoT6.41
Hybrid Control of Force and Position in a Dragging Task
 Pasquinelli, Cristina *Univ. of Genoa, Dept. Informatics, Bioengineering, Robotics*; De Santis, Dalia* *Istituto Italiano di Tecnologia*; Squeri, Valentina *Istituto Italiano di Tecnologia*; Morasso, Pietro *Italian Institute of Technology*; Casadio, Maura *Univ. of Genova*
- 10:00-11:30 SaBPoT6.42
Pilot Evaluation of New Sensorised Orthoses for Upper-Limb Treatment and Functional Monitoring
 Garavaglia, Lorenzo* *National Research Council of Italy*; Ceriotti, Carlo *National Research Council of Italy - Institute for Energetics an*; Lazzari, Fabio *National Research Council of Italy - Institute for Energetics an*; Passaretti, Francesca *Institute for Energetics and Interphases, National Research Coun*; Pittaccio, Simone *National Research Council of Italy*
- 10:00-11:30 SaBPoT6.43
Brain Training System using Electroencephalography (EEG) Technology
 Lin, Pei-Jung* *Hungkuang Univ.*; Chen, Young-Quan *National Cheng Kung Univ.*; Wu, Jian-He *National Kaohsiung Univ. of Applied Sciences*; Xu, Min-Sheng *Dept. of Computer Science and Information Engineering*
- 10:00-11:30 SaBPoT6.44
Monitoring Mental Workload and Position Errors for Rehabilitation with Haptic Device and Virtual Reality
 D'Andrea, Antonio* *Univ. of Padova*; Tonin, Luca *Swiss Federal Institute of Technology, Lausanne*; Pereira, Michael *Ecole Polytechnique Federale de Lausanne*; Millán, José del R. *Ecole Polytechnique Federale de Lausanne*; Oboe, Roberto *Univ. of Padova*; Reggiani, Monica *Univ. of Padova*
- 10:00-11:30 SaBPoT6.45
Haptically Induced EMG Patterns for Upper Limb Neuromuscular Evaluation
 Avila Mireles, Edwin Johnatan* *Istituto Italiano di Tecnologia*; Ruiz-Sanchez, Francisco Jose *Cinvestav-Saltillo*; García Salazar, Octavio *CIIIA-FIME, Univ. Autonoma de Nuevo León*
- 10:00-11:30 SaBPoT6.46
Preliminary Clinical Evaluation of a Drop Foot Stimulator for Low Income Countries
 Aqueveque, Pablo* *Univ. of Concepcion*; Saavedra, Francisco *Univ. of Concepcion*; Ortega, Paulina *Univ. of Concepcion*; Pino, Esteban J *Univ. de Concepcion*
- SaBPoT7: 10:00-11:30 Gold Room
7.LB1 Cellular and Tissue Engineering and Biomaterials
 (Poster Session)
- 10:00-11:30 SaBPoT7.1
Characterization of Double-Layered Nanoparticles for Time-Delayed Release of Growth Factors in Cardiovascular Tissue Engineering
 Izadifar, Mohammad* *Univ. of Saskatchewan*; Kelly, Michael E. *Univ. of Saskatchewan*; Chen, Xiongbiao (Daniel) *Univ. of Saskatchewan*
- 10:00-11:30 SaBPoT7.2
Thermal Impact on the Fabrication of 3D Cardiac Scaffolds for Cardiac Tissue Engineering
 Izadifar, Mohammad* *Univ. of Saskatchewan*; Kelly, Michael E. *Univ. of Saskatchewan*; Chen, Xiongbiao (Daniel) *Univ. of Saskatchewan*
- 10:00-11:30 SaBPoT7.4
Construction of Capillary Anastomosis in a Microfluidic Device
 Watanabe, Masafumi* *Keio Univ.*; Uwamori, Hiroyuki *Keio Univ.*; Sudo, Ryo *Keio Univ.*
- 10:00-11:30 SaBPoT7.5
The Evaluation of Glioma Invasion Ability under Interstitial Flow Conditions
 Namba, Naoko* *Keio Univ.*; Sudo, Ryo *Keio Univ.*
- 10:00-11:30 SaBPoT7.6
The Effects of Cell Arrangement and Growth Factor Gradient on Vessel Diameter in a Microfluidic Angiogenesis Model
 Murai, Ryosuke* *Keio Univ.*; Uwamori, Hiroyuki *Keio Univ.*; Sudo, Ryo *Keio Univ.*
- 10:00-11:30 SaBPoT7.7
The Evaluation of Interaction between Hepatocytes and Vascular Networks in Microenvironments
 Minami, Hiroshi* *Keio Univ.*; Sudo, Ryo *Keio Univ.*
- 10:00-11:30 SaBPoT7.8
Microscale Patterning for Preventing Posterior Capsular Opacification by Controlling Lens Epithelial Cell Migration
 Kwon, Chunga *Korea Institute of Science and Technology*; Jeon, Hojeong* *Korea Institute of Science and Technology*; Park, Jaeho *Korea Institute of Science and Technology*; Lee, Eojin *Korea Institute of Science and Technology*
- 10:00-11:30 SaBPoT7.9
Core-Shell Structured PCL-POMA Nanofibers by Coaxial Electrospinning Promotes Rat Mesenchymal Stem Cell Proliferation
 Li, Wen-Tyng* *Chung-Yuan Christian Univ.*

- 10:00-11:30 SaBPoT7.10
BloodExtractor – Standardized and Optimized Cord Blood Extractor
 Robortella, Roberto* *Univ. of Applied Sciences of Southern Switzerland (SUPSI)*; Tavilla, Agatino *Christian Univ. of Applied Sciences and Arts of Southern Switzerland*; Stafanini, Igor *Univ. of Applied Sciences and Arts of Southern Switzerland*
- 10:00-11:30 SaBPoT7.11
Crossing Angle Analysis of Chondrocyte Trails on Culture Substrates
 Shimizu, Oki* *Kyoto Univ. Graduate School of Engineering*; Sano, Kumpei *Kyoto Univ.*; Nakane, Yotaro *Kyoto Univ.*; Takahashi, Kazuya *Kyoto Univ. Graduate School of Engineering*; Kojima, Katsura *National Institutes of Agrobiological Sciences*; Tamada, Yasushi *Shinshu Univ.*; Tomita, Naohide *Kyoto Univ. Graduate School of Engineering*
- 10:00-11:30 SaBPoT7.14
A Search for Scaffold Condition Suitable for Inducing Cardiac Differentiation of Induced Pluripotent Stem Cells
 Matsuda, Yusuke *Okayama Univ. Graduate School of Medicine, Dentistry and Ph*; Sakai, Naomi *Okayama Univ. School of Medicine*; Takahashi, Ken* *Okayama Univ. Graduate School of Medicine, Dentistry and P*; Naruse, Keiji *Okayama Univ. Graduate School of Medicine, Dentistry and Pha*
- 10:00-11:30 SaBPoT7.15
Ultrasound-Mediated Gene Therapy using Antiangiogenesis Targeted Microbubbles in Brain Tumors
 Chang, En-ling *Natl. Tsing Hua Univ.*; Fan, Ching-Hsiang *Natl. Tsing Hua Univ.*; Yeh, Chih-Kuang* *Natl. Tsing Hua Univ.*
- 10:00-11:30 SaBPoT7.16
3D Cell Patterning using Dielectrophoresis on Digital Microfluidics
 Gupta, Anushka *Univ. of British Columbia*; Nestor, Bret *Andrew Univ. of British Columbia*; Diaz de Leon Derby, Maria *Univ. of British Columbia*; Van den Berg, André Christiaan* *Univ. of British Columbia*; Wang, Zongjie *Univ. of British Columbia*; Samanipour, Roya *Univ. of British Columbia*; Rezaei Nejad, Hojatollah *Univ. of British Columbia*; Kim, Keekyoung *Univ. of British Columbia Okanagan Campus*; Hoorfar, Mina *Univ. of British Columbia*
- 10:00-11:30 SaBPoT7.17
Evaluation of Decellularized Tissue Powder using a Rat Myocardial Infarct Model
 Hashimoto, Yoshihide *Tokyo Medical and Dental Univ.*; Negishi, Jun *Tokyo Medical and Dental Univ.*; Tabuchi, Masaki *Sapporo Medical Univ.*; Yamashita, Akitatsu *Tokyo Medical and Dental Univ.*; Kishida, Akio *Tokyo Medical and Dental Univ.*; Funamoto, Seiichi* *Tokyo Medical and Dental Univ.*
- SaBPoT8: 10:00-11:30 Gold Room
4.LB1 Bioinformatics and Computational Biology; Systems Biology; Modeling Methodologies (Poster Session)
- 10:00-11:30 SaBPoT8.2
Numerical Modeling of the Inductive Link for Transcutaneous Energy Transfer with Consideration of Specific Geometry
 Danilov, Arseny *MIET*; Mindubaev, Eduard* *MIET*; Nesterenko, Igor *JSC ZITC-MT*
- 10:00-11:30 SaBPoT8.3
Minimal Model Development for Neonatal Morbidity Screening
 McEwan, Alistair *The Univ. of Sydney*; Jeffery, Heather *Univ. of Sydney*; Hamimi, Fatin *The Univ. of Sydney*; Carberry, Angela *The Univ. of Sydney*; Huvanandana, Jacqueline* *The Univ. of Sydney*
- 10:00-11:30 SaBPoT8.6
Optimization of Intermittent and Frequent Hemodialysis Schedule using the Genetic Algorithm
 Choi, Jin Woo *Seoul National Univ.*; Kim, Heejin *Seoul National Univ.*; Lee, Jung Chan* *Seoul National Univ.*; Kim, Hee Chan *Seoul National Univ.*
- 10:00-11:30 SaBPoT8.7
The Method of Real Time Sign Language Interpreting using Kinect
 Sanada, Makoto* *Kinki Univ.*; Kamei, Yuhei *Kinki Univ.*; Okada, Shima *Faculty of Science and Engineering, Kinki Univ.*
- 10:00-11:30 SaBPoT8.8
A Method for Predicting Targets of MicroRNA based on Multiple Databases and Its Application to Cancer Related MicroRNAs
 Fukuoka, Yutaka* *Kogakuin Univ.*; Fujita, Mayu *Kogakuin Univ.*
- 10:00-11:30 SaBPoT8.10
Integrative Analysis of Expression Levels of MIRNA and MRNA: Investigation of Hypoxic Tolerance in Leukemia
 Ohki, Takuya* *Kogakuin Univ.*; Umezumi, Tomohiro *Tokyo Medical Univ.*; Ohyashiki, Junko *Tokyo Medical Univ.*; Fukuoka, Yutaka *Kogakuin Univ.*
- 10:00-11:30 SaBPoT8.11
An Age Prediction Model using Hippocampal Metabolite Concentrations and Cognitive and Memory Function Scores
 Kawakami, Yoko* *Nara Institute of Science and Tech.*; Ono, Naoaki *Nara Institute of Science and Tech.*; Sato, Tetsuo *Nara Inst of Science & Tech*; Sugiura, Tadao *Nara Institute of Science and Tech.*; Altaf-Ul-Amin, MD. *Nara Institute of Science and Tech.*; Kanaya, Shigehiko *Nara Institute of Science and Tech.*; Hoshida, Tohru *National Hospital Organization, Nara Medical Center*
- 10:00-11:30 SaBPoT8.12
Word based DNA Sequence Comparison Method with Reduced Complexity
 Seo, Hyein* *Korea Advanced Institute of Science and Technology (KAIST)*; Han, Gyu-Bum *Korea Advanced Institute of Science and Technology (KAIST)*; Cho, Dong-Ho *Korea Advanced Institute of Science and Technology (KAIST)*
- 10:00-11:30 SaBPoT8.14
Signal Initiation Sites on Spiral Ganglion Cells: A Simulation Study
 Sriperumbudur, Kiran K* *Univ. of Rostock*; Hans, Wilhelm *Pau Univ. of Rostock*; Robert, Mlynski *Univ. of Rostock*; van Rienen, Ursula *Univ. of Rostock*
- 10:00-11:30 SaBPoT8.15
An Implementation for the Bio-Chemo-Mechanical Model of Cell Contractility
 Truong, Duy Thanh* *Univ. of Rostock*; Nebe, Barbara *Univ. of Rostock*; van Rienen, Ursula *Univ. of Rostock*
- 10:00-11:30 SaBPoT8.16
Brain Gene Expression Signatures Accurately Classify Behavior in Bees
 Fiini, Nicola *Univ. of Trento*; Lauria, Mario* *COSBI*
- 10:00-11:30 SaBPoT8.17
A Study on MERS-CoV via a Mathematical Model based on the Spread in South Korea, 2015
 Chang, H.J.* *Kookmin Univ.*; Park, Haneul *Kookmin Univ.*
- 10:00-11:30 SaBPoT8.18
High-throughput Tracking of Cancer Cells using Parametric Active Contours and Kalman Smoothing
 Zhang, Yang* *The Univ. of Sheffield*; Sero, Julia *Dynamical Cell Systems Team, Div. of Cancer Biology, Institu*; Holmes, Geoffrey *Robert Univ. of Sheffield*; Bakal, Chris *Dynamical Cell Systems Team, Div. of Cancer Biology, Institu*; Anderson, Sean R *Univ. of Sheffield*; Kadirkamanathan, Visakan *Univ. of Sheffield*
- 10:00-11:30 SaBPoT8.19
A Novel Sequence Comparison Method based on K-Word Positions
 Han, Gyu-Bum* *Korea Advanced Institute of Science and Technology (KAIST)*; Chung, Byung Chang *Korea Advanced Institute of Science and Technology (KAIST)*; Cho, Dong-Ho *Korea Advanced Institute of Science and Technology (KAIST)*

10:00-11:30	SaBPoT8.20	Neural Network-Based Classification of Concussed and Control Groups from EEG Keshavarz Hedayati, Babak* <i>Univ. of Victoria</i> ; Dimopoulos, Nikitas <i>Univ. of Victoria</i> ; Babul, Arif <i>Univ. of Victoria</i> ; Yeung, Arnold <i>Univ. of British Columbia</i> ; Virji-Babul, Naznin <i>Univ. of British Columbia</i>	SaDT4: 12:45-14:15	Amber 1	2.M3 Functional Near Infrared Spectroscopy: Engineering Challenges and Translation to the Clinic (Minisymposium) Chair: Pollonini, Luca <i>University of Houston</i> Co-Chair: Torricelli, Alessandro <i>Politecnico di Milano</i>
10:00-11:30	SaBPoT8.21	Developing the Virtual Physiological Human: Tools, Techniques, and Best Practices for Data Exchange, Storage, and Publication Nickerson, David Phillip* <i>The Univ. of Auckland</i> ; Sorby, Hugh <i>Univ. of Auckland</i> ; Nielsen, Poul <i>The Univ. of Auckland</i> ; Hunter, Peter <i>Univ. of Auckland</i>	12:45-13:00	SaDT4.1	Integration of Virtual Reality and Functional Near-Infrared Spectroscopy (FNIRS) for Assessing Prefrontal Cortex (PFC) Activation in Neurorehabilitation Placidi, Giuseppe* <i>Univ. of L'Aquila - ITALY</i> ; Ferrari, Marco <i>Univ. of L'Aquila</i> ; Quaresima, Valentina <i>Univ. of L'Aquila</i>
10:00-11:30	SaBPoT8.22	Transcriptional Signature for the Identification of Acute Myocardial Infarction Trastulla, Lucia <i>Univ. of Trento</i> ; Lauria, Mario* <i>COSBI</i>	13:00-13:15	SaDT4.2	Towards Dense and Wearable Time Domain FNIRS Torricelli, Alessandro* <i>Politecnico di Milano</i>
SaDT1: 12:45-14:15	Brown 1	SS1 Accelerating Biomedical Technologies through Open Standards Development (Special Session) Chair: Carey, Carole C. <i>Former U.S. Food and Drug Administration</i> Co-Chair: Hecht, Bruce <i>Analog Devices</i>	13:15-13:30	SaDT4.3	Clinical Application of Functional Near-Infrared Spectroscopy in Neonatology: Potential and Challenges Wolf, Martin* <i>Univ. of Zurich</i>
12:45-13:00	SaDT1.1	Moving from Data to Knowledge to Value with Large-Scale Analytics Keshava, Nirmal* <i>AstraZeneca</i>	13:30-13:45	SaDT4.4	Potential of Near Infrared Spectroscopy in Neurology Obrig, Hellmuth* <i>Max Planck Institute for Human Cognitive and Brain Sciences</i>
13:00-13:15	SaDT1.2	How Open, Consensus-Based Standards Development Can Optimize the Regulatory Review Process Carey, Carole C.* <i>Former U.S. Food and Drug Administration</i>	SaDT5: 12:45-14:15	Amber 2	12.M2 Optimizing Point of Care Engagement II (Minisymposium) Co-Chair: Pai, Vinay <i>National Institutes of Health</i>
13:15-13:30	SaDT1.3	ISO/IEEE 11073, IHE,, HL7, and Continua: Fostering Biomedical Technology and Interoperability of Medical Device Standards Sloane, Elliot B.* <i>Center for Healthcare Information Research & Policy (CHIRP)</i>	12:45-13:00	SaDT5.1	Telehealth POC Technologies to Enable Assimilation/adoption in the Aging, Chronically Ill Community Celler, Branko George* <i>Univ. of New South Wales</i> ; Sparks, Ross <i>CSIRO - Digital Productivity Flagship</i> ; Alem, Leila <i>CSIRO - Digital Productivity Flagship</i> ; Nepal, Surya <i>CSIRO - Digital Productivity Flagship</i> ; Varnfield, Marlien <i>CSIRO</i> ; Li, Jane <i>CSIRO - Digital Productivity Flagship</i> ; Jang-Jaccard, Julian <i>CSIRO - Digital Productivity Flagship</i> ; McBride, Simon <i>CSIRO - Digital Productivity Flagship</i> ; Jayasena, Rajiv <i>CSIRO - Digital Productivity Flagship</i>
13:30-13:45	SaDT1.4	3D Technology and Wearable Device Application in Healthcare Fields Moon, Young Lae* <i>Chosun Univ. Hospital</i> ; Park, Sang ha <i>Orthopaedic Dept. of Chosun Univ. Hospital, Gwangju, K</i>	13:00-13:15	SaDT5.2	Personal Sensors for Monitoring of Health Behaviors and Changes in Health – Where Are We Now? Korhonen, Ilkka* <i>Tampere Univ. of Technology</i>
SaDT2: 12:45-14:15	Brown 2	10.M2 Turning Big Data into Meaningful Data (Minisymposium) Chair: Bressan, Nadja <i>University of Ontario Institute of Technology</i> Co-Chair: Reumann, Matthias <i>IBM Research - Zurich</i>	13:15-13:30	SaDT5.3	Point-of-Care Solutions for COPD Self-Management Arvind, D K* <i>Univ. of Edinburgh</i>
12:45-13:00	SaDT2.1	Clinical Attention on the Cognitive Battlefields of Emergency Departments Schmidt, Thomas* <i>Univ. of Southern Denmark</i> ; Lassen, Annmarie <i>Odense Univ. Hospital</i> ; Wiil, Uffe Kock <i>Univ. of Southern Denmark</i>	13:30-13:45	SaDT5.4	Role of Computational Modeling in Optimizing POC Technologies for Populations at Risk Pavel, M.* <i>Northeastern Univ.</i> ; Jimison, H. <i>Northeastern Univ.</i>
13:00-13:15	SaDT2.2	The Value Proposition of Big Data Analytics in Healthcare McGregor, Carolyn* <i>Univ of Ontario Inst of Technology</i>	SaDT6: 12:45-14:15	Amber 3	2.M4 Photoacoustic Imaging: Systems, Agents, and Applications (Minisymposium) Chair: Kim, Chulhong <i>Pohang Univ. of Science and Technology</i>
13:15-13:30	SaDT2.3	Contextualizing Complex High Volume Physiological and Drug Data in the Neonatal Intensive Care Unit Bressan, Nadja* <i>Univ. of Ontario Institute of Technology</i> ; McGregor, Carolyn <i>Univ of Ontario Inst of Technology</i> ; James, Andrew <i>Univ. of Toronto</i>	12:45-13:00	SaDT6.1	Recent Progress on Photoacoustic Imaging: Clinical Systems and Contrast Agents Kim, Chulhong* <i>Pohang Univ. of Science and Technology</i>
13:30-13:45	SaDT2.4	Big Data and Cognitive Computing in Life Sciences: Today's Challenges and a Bright Future Reumann, Matthias* <i>IBM Research - Zurich</i>	13:00-13:15	SaDT6.2	Photoacoustic Imaging Enhanced with Coherent Light Bossy, Emmanuel <i>ESPCI ParisTech, CNRS, INSERM, PSL Research Univ.</i> ; Chaigne, Thomas* <i>Institute Langevin</i> ; Gigan, Sylvain <i>LKB, UPMC, ENS, Collège de France, CNRS</i>
			13:15-13:30	SaDT6.3	Photoacoustic Imaging: Steps towards Clinical Translation, and Steps towards Quantification Steenbergen, Wiendelt* <i>Univ. of Twente</i> ; Manohar, Srirang <i>Univ. of Twente</i>

13:30-13:45	SaDT6.4	Extending Biological Imaging to the Fifth Dimension – Evolution of Volumetric Multi-Spectral Optoacoustic Tomography Deán-Ben, X. Luis* <i>Biological and Medical Imaging, Technical Univ. of Munich a</i> ; Razansky, Daniel <i>Technical Univ. of Munich and Helmholtz Center Munich</i>	SaDT9: 12:45-14:15	Amber 6	4.M2 Machine Learning and Simulation of Dynamic Patterns of Biological Systems at Multiscale: Protein Structures, Stochastic Networks, and Tissue Pattern Formation (Minisymposium) Co-Chair: Gao, Xin <i>King Abdulla Univ. of Science and Technology</i>
SaDT7: 12:45-14:15	Amber 4	5.M4 Mechanical Circulatory Support: Flow, Cells and Devices (Minisymposium) Chair: Slepian, Marvin J. <i>Univ. of Arizona</i>	12:45-13:00	SaDT9.1	Automated Protein Structure Determination from NMR Multidimensional Spectra Gao, Xin* <i>King Abdulla Univ. of Science and Technology</i>
12:45-13:00	SaDT7.1	How Computational Fluid Dynamics can Help in the Design of Mechanical Circulatory Support Device Redaelli, Alberto* <i>Politecnico di Milano</i>	13:00-13:15	SaDT9.2	A Hybrid Model Decomposition Framework for Parameter Estimation of Gene Circuit Models Kuwahara, Hiroyuki* <i>King Abdullah Univ. of Science and Tech.</i> ; Gao, Xin <i>King Abdulla Univ. of Science and Tech.</i>
13:00-13:15	SaDT7.2	Device Thrombogenicity Emulation: Principles and Applications Bluestein, Danny* <i>Stony Brook Univ.</i> ; Slepian, Marvin J. <i>Univ. of Arizona</i>	13:15-13:30	SaDT9.3	Multiscale Simulation of Wound Healing with Embedded Molecular Intra-Cellular Network and Cellular Mechanical Forces of Cell-Cell and Cell-ECM Interactions Cao, Youfang <i>Univ. of Illinois at Chicago</i> ; Zhao, Jieliang <i>Univ. of Illinois at Chicago</i> ; Di Pietro, Luisa <i>Univ. of Illinois at Chicago</i> ; Liang, Jie* <i>Univ. of Illinois at Chicago</i>
13:15-13:30	SaDT7.3	Continuous Hemodynamic Monitoring of Patients with a Continuous-Flow Left Ventricular Assist Device Moscato, Francesco* <i>Medical Univ. of Vienna</i> ; Gross, Christoph <i>Medical Univ. of Vienna</i> ; Marko, Christiane <i>Rehabilitation Center Felbring</i> ; Zimpfer, Daniel <i>Medical Univ. of Vienna</i> ; Schima, Heinrich <i>Univ. of Vienna</i>	13:30-13:45	SaDT9.4	Multistable Physiological States from Simple Stochastic Gene Regulatory Network Motifs Cao, Youfang* <i>Univ. of Illinois at Chicago</i> ; Terebus, Anna <i>Univ. of Illinois at Chicago</i> ; Liang, Jie <i>Univ. of Illinois at Chicago</i>
13:30-13:45	SaDT7.4	Platelet Activation and MCS: What Does It Really Mean? How Can We Modulate This for Improved Patient Outcomes? Slepian, Marvin J.* <i>Univ. of Arizona</i> ; Bluestein, Danny <i>Stony Brook Univ.</i>	SaDT11: 12:45-14:05	White 2	SS3 Biomedical Engineering in South Africa (Honoring the Memory of Prof. Cornie Scheffer) (Special Session) Chair: Karlen, Walter <i>ETH Zurich</i> Co-Chair: Dellimore, Kiran <i>Philips Research</i>
SaDT8: 12:45-14:15	Amber 5	10.M4 New Directions in Metabolic Measurement Technologies and Behavior Support (Minisymposium) Chair: Moon, Jon <i>MEI Research, Ltd</i>	12:45-12:55	SaDT11.1	Engineering of Biomaterial Injectate Therapies for Myocardial Infarction Franz, Thomas* <i>Univ. of Cape Town</i> ; Sirry, Mazin S <i>Univ. of Cape Town</i> ; Wise, Peter <i>Univ. of Cape Town</i> ; Bezuidenhout, Deon <i>Univ. of Cape Town</i> ; Davies, Neil H <i>Univ. of Cape Town</i>
12:45-13:00	SaDT8.1	Applying Sensor, Survey and Resource Data to Healthy Behavior Change Moon, Jon* <i>MEI Research, Ltd</i>	12:55-13:05	SaDT11.2	The Evolution of the Biomedical Engineering Research Group (BERG) at Stellenbosch University Van Den Heever, Dawie* <i>Stellenbosch Univ.</i> ; Muller, Cobus <i>Stellenbosch Univ.</i>
13:00-13:15	SaDT8.2	Optical Detection of Carotenoids in Living Tissue as a Measure of Fruit and Vegetable Intake Whigham, Leah* <i>Paso del Norte Institute for Healthy Living</i> ; Redelfs, Alisha H <i>Paso del Norte Institute for Healthy Living</i>	13:05-13:15	SaDT11.3	Medical Device Development Activity in South Africa De Jager, Kylie <i>Univ. of Cape Town</i> ; Chimhundu, Chipso <i>Univ. of Cape Town</i> ; Douglas, Tania S* <i>Univ. of Cape Town</i>
13:15-13:30	SaDT8.3	Mobile Evaluation of Human Energy Balance and Weight Control: Potential for Future Developments Heymsfield, Steven <i>Pennington Biomedical Research Center</i> ; Kim, Justin Younghyun <i>Samsung Electronics</i> ; Bhagat, Yusuf* <i>Samsung Research America</i> ; Zheng, Jolene <i>Pennington Biomedical Research Center</i> ; Kim, Insoo <i>Samsung Research America - Dallas</i> ; Choi, Ahyoung <i>Samsung Electronics</i> ; Jo, Seongwook <i>Samsung Electronics</i> ; Cho, J. <i>Samsung Electronics</i>	13:15-13:25	SaDT11.4	Model-Based Patient-Specific 3D Reconstruction from 2D Images – A Lower-Cost Solution for a Developing Country Mutsvangwa, Tinashe Ernest Muzvidzwa* <i>Univ. of Cape Town</i> ; Douglas, Tania S <i>Univ. of Cape Town</i>
13:30-13:45	SaDT8.4	Immediate Biofeedback for Energy Balance via Expired Breath δ 13CO2 Butz, Daniel* <i>Univ. of Wisconsin - Madison</i> ; Weidmann, Damien <i>Science & Tech. Facilities Council, Rutherford Appleton Lab</i> ; Brownsword, Richard <i>Science & Tech. Facilities Council, Rutherford Appleton Lab</i> ; Cook, Mark <i>Univ. of Wisconsin - Madison</i> ; Schoeller, Dale <i>Univ. of Wisconsin - Madison</i> ; Whigham, Leah <i>Paso del Norte Institute for Healthy Living</i>	13:25-13:35	SaDT11.5	Polymeric Transcatheter Heart Valves: Accessible Therapies for the Neglected Bezuidenhout, Deon* <i>Univ. of Cape Town</i> ; Zilla, Peter <i>Univ. of Cape Town</i> ; Coombes, Heather <i>Strait Access Technologies</i> ; Williams, David <i>Univ. of Cape Town</i>
			13:35-13:45	SaDT11.6	Shedding a New Light on Global Health Dumont, Guy* <i>Univ. of British Columbia</i>
			13:45-13:55	SaDT11.7	Affordable Medical Devices Design and Development in South Africa Sivarasu, Sudesh* <i>Univ. of Cape Town</i>

13:55-14:05 SaDT11.8

Pressure Sore Prevention for the Disabled in Under-Resourced Environments

Peterson, Joshua *Rensselaer Polytechnic Institute*; Healey, Colleen *Rensselaer Polytechnic Institute*; Crombie, Cameron *Univ. of Stellenbosch*; Jacobus, Visser *Stellenbosch Univ.*; Ledet, Eric* *Rensselaer Polytechnic Institute*

SaDT14: 12:45-14:15 Amber 7

11.M1 Advances in Diabetes Management and Social Impact (Minisymposium)

Chair: Magjarevic, Ratko *University of Zagreb*

Co-Chair: Zequera Diaz, Martha Lucia *Associate Professor at Pontificia Universidad Javeriana - Electronics Dept. - Ergosalud Ltda.*

12:45-13:00 SaDT14.1

A Multidisciplinary Reference Framework to Support Implementation and Assessment of Diabetes Care in Community Settings: Study Design

Fico, Giuseppe* *Technical Univ. of Madrid*;
Arredondo, María Teresa *Technical Univ. of Madrid*

13:00-13:15 SaDT14.2

A Pilot Study Comparing Two Orthotics Management Systems Aimed to Obtain Expert Knowledge to Improve an Applied Expert System "Diapetics" in the Management of the Diabetic Foot in Colombia

Zequera Diaz, Martha Lucia* *Associate Professor at Pontificia Univ. Javeriana - Electr*; Rowley, Chris *Scottish Government and the National Health Service (NHS)*; Herrera Buitrago, Moisés Fernando *Pontificia Univ. Javeriana*; Polo Koch, Andrea *Pontificia Univ. Javeriana*; González Angarita, Manuel José *Pontificia Univ. Javeriana*; Ortiz, Gabriel *Pontificia Univ. Javeriana*; Mora Calderón, Francisco Adolfo *Pontificia Univ. Javeriana*; Cubides, Mauricio *Pontificia Univ. Javeriana*

13:15-13:30 SaDT14.3

Ongoing Research: Benefits of Home-Based Balance Training on Balance Control in Diabetics with Peripheral Neuropathy

Seketa, Goran* *Faculty of electrical engineering and computing, Univ. of Z*; Zequera Diaz, Martha Lucia *Pontificia Univ. Javeriana - Electr*; Magjarevic, Ratko *Univ. of Zagreb*

SaDT21: 12:45-14:15 Suite 8

SS2 Historical Context for the Present and Future of Biomedical Engineering (Special Session)

12:45-13:00 SaDT21.1

Could Al-Zahrawi (Pre-Medieval Surgeon) be Considered a Biomedical Engineer?

Saad, Mohamed Nagy *Misr Univ. for Science and Technology*;
Leder, Ron *Univ. Nacional Autonoma de Mexico*; Kun, Luis *Center for Hemispheric Defense Studies (CHDS) / NDU*;
Casson, Alexander James* *The Univ. of Manchester*

Early Career Achievement Award



Danielle S. Bassett

For her pioneering and fundamental contributions to neural and systems engineering, including formalizing graph-based representations of neuroimaging data, characterizing human brain network architecture in health and disease, and discovering a network-based predictor of individual differences in human learning

EMBS Academic Career Achievement Award



Bin He

For significant contributions to neuroengineering research and education

William J Morlock Award



Matthew O'Donnell, Ph.D.

For seminal contributions to real-time adaptive array processing, ultrasonic speckle tracking, elasticity imaging of soft tissues, MRI angiography, and acoustooptic transduction, all having direct clinical implications and improving healthcare

EMBS Service Award



Zhi-Pei Liang

For outstanding service to EMBS and the field of biomedical engineering

Technical Field Award



Nigel Lovell

For world class contributions to research, clinical trialing, and commercialization of medical device technologies and wearable sensors including visual prostheses, telehealth systems and ambulatory falls monitors

Technical Field Award



Russell H. Taylor

For contributions and leadership in the field of medical robotics

IEEE Biomedical Engineering Award



Christofer Toumazou

For outstanding contributions to biomedical circuit technology

Sponsored by the IEEE Engineering in Medicine and Biology Society, IEEE Circuits and Systems Society, and IEEE Computational Intelligence Society

IEEE Medal For Innovations In Healthcare Technology



TAKUO AOYAGI

For pioneering contributions to pulse oximetry that have had a profound impact on healthcare

Sponsored by the IEEE Engineering in Medicine and Biology Society

EMBC Student Paper Competition Finalists

Geographic Finalists

North America:

Yuxiao Yang, University of Southern California

A Framework for Identification of Brain Network Dynamics Using A Novel Binary Noise Modulated Electrical Stimulation Pattern

Europe:

Eleonora Tamilia, Università Campus Bio Medico di Roma

An Automated System for Quantitative Analysis of Newborns' Oral-Motor Behavior and Coordination during Bottle Feeding

Asia-Pacific:

Utkarsh Jindal, International Institute of Information Technology, Hyderabad

Corticospinal Excitability Changes To Anodal tDCS Elucidated With NIRS-EEG Joint-imaging - An Ischemic Stroke Study

Middle East-Africa:

Khaled Sayed, Cairo University

Arrhythmia Classification Based On Novel Distance Series Transform Of Phase Space Trajectories

Latin America:

Lucas Massaroppe, University of Sao Paulo

Kernel-nonlinear-PDC extends Partial Directed Coherence to Detecting Nonlinear Causal Coupling

Open Finalists

Hui-Ling Chan, National Chiao Tung University, Taiwan

Beamformer-based Imaging of Phase-Amplitude Coupling using Electromagnetic Brain Activity

Christopher Cline, University of Minnesota

Subject-Specific Optimization of Channel Currents for Multichannel Transcranial Magnetic Stimulation

Siavash Ghaffari, McGill University

Effect of In Vivo Flow Dynamics On Angiogenesis By Computational Modeling

Javier Hernandez, Massachusetts Institute of Technology

BioPhone: Physiology Monitoring from Peripheral Smartphone Motions

Christopher Cline, University of Minnesota

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Effect of In Vivo Flow Dynamics On Angiogenesis By Computational Modeling

Javier Hernandez, Massachusetts Institute of Technology

BioPhone: Physiology Monitoring from Peripheral Smartphone Motions

Daniel Oloumi, University of Alberta

Breast Tumor Detection Using UWB Circular-SAR Tomographic Microwave Imaging

Julie Oziat, CEA

Electrochemistry Provides A Simple Way To Monitor Pseudomonas Aeruginosa Metabolites

Amanda Shultz, Vanderbilt University

Walking on Uneven Terrain with a Powered Ankle Prosthesis: A Preliminary Assessment

Quang N. Vo, University of Alberta

3D Ultrasound Imaging Method to Assess the True Spinal Deformity

Mark Patrick Zapf, University of New South Wales

Assistive Peripheral Prosthetic Vision Aids Perception and Mobility in Outdoor Environments: A Simulation Study

Xinran Zhang, Tsinghua University

A High-Accuracy Surgical Augmented Reality System Using Enhanced Integral Videography Image Overlay

Best New Student Branch Chapter-Club



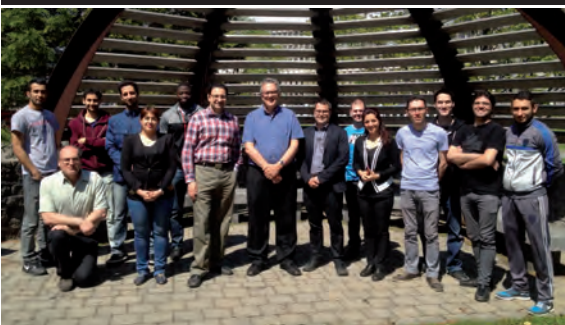
IEEE EMBS Student Chapter,
Munich

Outstanding Student Branch Chapter-Club



IEEE EMBS
Student Branch Chapter-Club,
MSRIT
(Ramaiah Institute of Technology)

Best New Chapter



IEEE EMBS Chapter,
Quebec

Outstanding Chapter



IEEE EMBS Chapter,
Malaysia

Newly Elected Fellows

The IEEE Board of Directors approved the newly elevated Fellows for 2015. Please join us in congratulating our colleagues on this prestigious accomplishment!

Ewert Bengtsson, Uppsala University

for contributions to quantitative microscopy and biomedical image analysis

Olga Boric-Lubecke, University of Hawaii at Manoa

for contributions to biomedical microwave technology

Purnendu Dasgupta, University of Texas at Arlington

for contributions to ion chromatography and analytical instrumentation for environmental studies

Jeffrey Duerk, Case Western Reserve University

for contributions to rapid magnetic resonance imaging technologies

Randy Ellis, Queen's University

for contributions to image guided surgical technology

Alan Finkel, Monash University

for contributions to measurement technology for biomedicine

Richard Jones, New Zealand Brain Research Institute

for contributions to human performance engineering and neurorehabilitation

Tzzy-Ping Jung, University of California, San Diego

for contributions to blind source separation for biomedical applications

Edmund Lam, University of Hong Kong

for contributions to modeling and computational algorithms in imaging applications

Stefan Mozar, Dynexsys Pty Ltd.

for development of safety solutions for electronic equipment

Yu Sun, University of Toronto

for contributions to automated manipulation of biological cells

John Vaughan, University of Minnesota

for contributions to high-field magnetic resonance imaging technology

Blake Wilson, Duke University

for development of cochlear implants

Bulent Yener, Rensselaer Polytechnic Institute (RPI)

for contributions to network design optimization and security

1st IEEE EMBS International Student Conference (ISC) 6-8 Nov, 2015 Orlando FL



1st International Student Conference of the IEEE Engineering in Medicine and Biology Society

ISC 2015 CALL FOR PAPERS

<http://2015qisc.embs.org>

Welcome to the 1st International Student Conference organized by IEEE EMBS, the first in our series of conferences organized by the students for the students. This first edition will take place at Universal Studios in sunny Orlando, Florida on 6-8 November, 2015.

Objective

If you are a student in Biomedical Engineering this is for you! This conference will be like no other you have attended – it provides professional development skills in equal measures to the technical showcasing of your work. Through attending, you will experience creative problem solving, learn team dynamics, envision solutions with real-life impact, and build and refine your communication skills. In addition to technical sessions, the conference involves workshops to help hone skills on manuscript writing, grant writing, presentation delivery, and more! This conference is designed for BME students like you, and offers unique and valuable professional development experiences! More information is available here: <http://2015qisc.embs.org/>.

Paper Submission: <https://cmt.research.microsoft.com/EMBSISC2015/>

We invite **electronic 4-page IEEE style manuscript submissions** to be considered for oral or poster presentation. **Paper style guidelines** are available here: <http://embc.embs.org/2015/author-instructions-4-pages-papers/>. Papers will be reviewed and assessed based on quality, scientific merit, and best means of presentation. Please follow this link to the paper submissions website: <https://cmt.research.microsoft.com/EMBSISC2015/>. Create an account using your email address and follow the steps, and submit your paper in PDF format. We encourage submission of papers from across the whole range of Biomedical Engineering subject areas.

Topics to be addressed in ISC 2015 include, but are not limited to:

*Biomedical Signal Processing
Biomedical Imaging & Image Processing
Bioinstrumentation, Biosensors, & Bio-Micro/Nano Technologies
Bioinformatics & Computational Biology, Systems Biology & Modelling Methodologies
Cardiovascular & Respiratory Systems Engineering
Neural Engineering & Rehabilitation Engineering
Cellular & Tissue Engineering & Biomaterials
Biomechanics & Biorobotics
Technologies for Active Ageing & Wellbeing
Therapeutic Systems, Devices & Technologies & Clinical Engineering
Healthcare Information Systems & Telemedicine*

Important Dates

13 th August 2015	Paper Submission Deadline
27 th August 2015	Notification of Acceptance
4 th September 2015	Camera-ready Papers Due
22 nd September 2015	Presenting Author Registration Deadline
6-8 th November 2015	2015 ISC, Orlando FL USA

ISC 2015 Proceedings Publication

All accepted papers presented at ISC 2015 will be published as proceedings indexed in IEEE Xplore and available at the conference.



NIH-IEEE Strategic Conference on Point of Care Technologies for Precision Medicine

November 9-10, 2015

NIAID Conference Center, 5601 Fishers Lane, Bethesda, MD 20852



Organized By

National Institute of Biomedical Imaging and Bioengineering (NIBIB), NIH
Engineering in Medicine and Biology Society (EMBS), IEEE

National Cancer Institute (NCI), NIH
National Heart, Lung and Blood Institute (NHLBI), NIH

National Institute of Allergy and Infectious Diseases (NIAID), NIH

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Atam Dhawan, PhD, VP Research, NJIT

Program Chair

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Bernard Weigl, PhD, Sr. Platform Manager and Technical Expert, Flow Based Diagnostics, Intellectual Ventures/Global Good

Laura Wolf, CMM, Executive Director, EMBS

Call For Papers

The NIH-IEEE Strategic Conference will focus on healthcare innovations and point-of-care technologies for precision medicine, and their clinical translation to address challenges in global healthcare. The proposed conference will provide a strategic forum with clinicians, healthcare providers, industry experts, innovators, researchers and students to define clinical needs and technology solutions towards commercialization and translation to precision medicine. Panel discussions and open forum sessions along with research presentations will focus on the development, clinical translational, commercialization, implementation and user-compliance of innovative healthcare and point-of-care technologies in clinical (hospital, emergency, acute, chronic and primary care), non-traditional (consumer) and under-resourced settings. The overall goal of the strategic conference is to provide opportunities for stakeholders to explore collaborations and synergies to accelerate healthcare system development, validation, deployment and adoption of Point-of-Care (POC) technologies for improving global healthcare at affordable cost.

Along with keynote, panel discussion, and breakout sessions with leaders and stakeholders addressing clinical needs, enabling technologies, regulatory protocols funding opportunities and business models, a limited number of oral and poster presentations will be included in the final program. We invite you to submit a one-page paper for oral presentation in the technical sessions or poster exhibit session in the following thematic areas. All submissions will be reviewed and selected one-page papers will be included in the Program Booklet. All papers presented at the Conference in their expanded required format will be considered for publication in the open-source IEEE Journal of Translational Engineering in Health and Medicine (<http://health.embs.org/>). There will be a comprehensive White Paper generated and published from the conference presentations and panel discussions.

Conference themes to which papers can be submitted:

- Point-Of-Care (POC) Technologies Clinical Translational of Healthcare Innovations
- POC Technologies for Home-Based Applications
- POC Technologies for Slightly Trained Operators
- POC Technologies for Clinical and Healthcare Facilities
- POC Technologies for Intensive-Care Applications
- Personalized, Preventive and Precision Medicine
- Global Healthcare Challenges

Paper Submission Instructions and More Information

NIH-IEEE Strategic Conference website: <http://hipt.embs.org/2015>

Deadlines

Submission of 1-Page Paper: September 1, 2015

Author Notification of Acceptance: October 1, 2015

Early Conference Registration Opens: September 1, 2015



BHI-2016 International Conference on Biomedical and Health Informatics

“Integrative informatics for precision and preventive medicine”

Las Vegas 24th-27th Feb 2016



FIRST ANNOUNCEMENT

The **IEEE International Conference on Biomedical and Health Informatics (BHI)** is a special topic conference of **IEEE Engineering in Medicine and Biology Society (IEEE-EMBS)**. The main theme of the BHI2016 is the “Integrative informatics for precision and preventive medicine.” Advancing health informatics has been identified as a grand challenge for engineering in the 21st century by the National Academy of Engineering. Maintaining and improving human health will require integrative and novel informatics solutions to better translate discovery into clinics, re-engineer care practices, and integrate big data of various health networks.

The BHI2016 will provide a unique forum to showcase enabling technologies of computing, devices, imaging, sensors, and systems that optimize the acquisition, transmission, processing, storage, retrieval, visualization, and analysis. It will share how integrative BHI informatics solutions can be used in novel applications to improve human health, and how the deployment of integrated bioinformatics, m-Health, e-Health, and tele-Health with Enterprise IT can enable precision and preventive medicine.

BHI'2016 welcomes original submissions that have not been published or under review by researchers, clinicians, and industrial partners from the biomedical, life sciences, medical, and industrial communities. Examples of relevant topics include, but are not limited to the following few tracks:

Sensor Informatics Foundation of BHI	Biomedical Imaging Informatics Bioinformatics for Precision Medicine	Clinical Informatics Behavior and Health Informatics
<ul style="list-style-type: none"> • Big data analytics for health care • Wearable, implantable devices, printable/ flexible bioelectronics and 3D printing • Body sensor networks • Context awareness, multi-sensor data fusion • Data inference, mining, and trend analysis • Quality of service, trust, security, and light-weight communication protocols • Sensor-based mHealth App • Medical image processing and visualization • Content-based image retrieval • Teleradiology • Augmented reality • Cognitive computing for healthcare delivery and disease management • Data breach prevention and security • E-commerce solutions for healthcare 	<ul style="list-style-type: none"> • Telehealth and Telemedicine • Health data acquisition, transmission, management and visualization • Information technologies for healthcare delivery and management • Healthcare communication networks • Knowledge discovery and decision support • Translational bioinformatics • Outcomes research applications • Public health management solutions • Informatics for chronic disease management • Formalism for healthcare modeling and informatics solutions. • Platforms/solutions for precision medicine • Healthcare modeling and simulation • Algorithms for Natural language processing and clinical pattern recognitions • Health information systems and convergence of health 	<ul style="list-style-type: none"> • Telehealth and Telemedicine • Health data acquisition, transmission, management and visualization • Information technologies for healthcare delivery and management • Healthcare communication networks • Knowledge discovery and decision support • Translational bioinformatics • Outcomes research applications • Public health management solutions • Informatics for chronic disease management • Formalism for healthcare modeling and informatics solutions. • Platforms/solutions for precision medicine • Healthcare modeling and simulation • Algorithms for Natural language processing and clinical pattern recognitions • Health information systems and convergence of health

Submitted manuscripts should use IEEE template:

(<http://embs.paperecept.net/conferences/support/support.php>). The authors of selected papers will be invited to adapt their papers for being published in a special issue of IEEE Journal of Biomedical and Health Informatics (J-BHI).

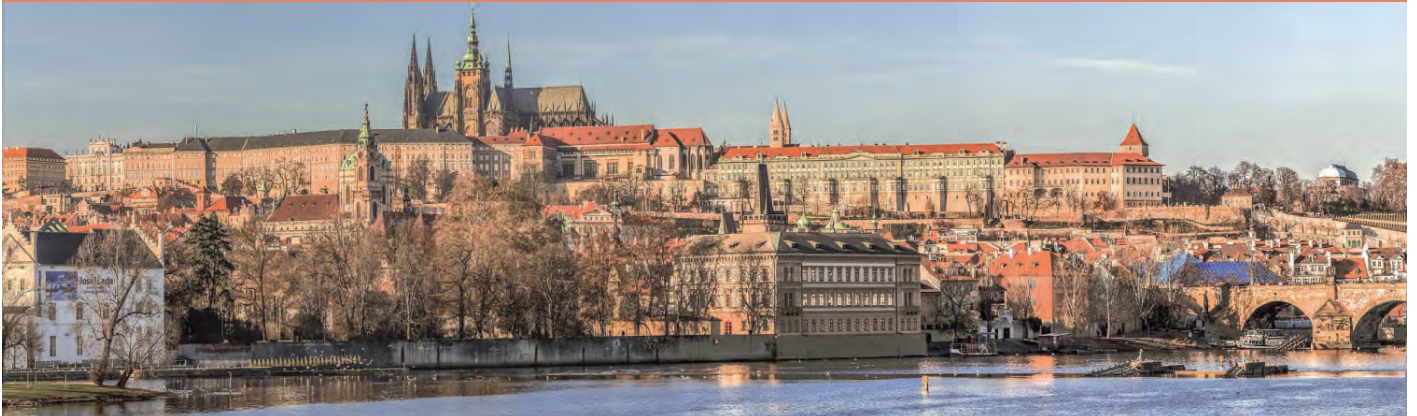


<http://bhi.embs.org/2016>



IEEE International Symposium on Biomedical Imaging

April 13-16, 2016, Prague, Czech Republic



CALL FOR PAPERS

The IEEE International Symposium on Biomedical Imaging (ISBI) is a scientific conference dedicated to mathematical, algorithmic, and computational aspects of biomedical imaging, across all scales of observation. It fosters knowledge transfer among different imaging communities and contributes to an integrative approach to biomedical imaging.

ISBI is a joint initiative from the IEEE Signal Processing Society (SPS) and the IEEE Engineering in Medicine and Biology Society (EMBS). The 2016 meeting will include tutorials, and a scientific program composed of plenary talks, invited special sessions, challenges, as well as oral and poster presentations of peer-reviewed papers.

High-quality papers are requested containing original contributions to the topics of interest including image formation and reconstruction, computational and statistical image processing and analysis, dynamic imaging, visualization, image quality assessment, and physical, biological, and statistical modeling. Accepted 4-page regular papers will be published in the symposium proceedings published by IEEE and included in IEEE Xplore.

To encourage attendance by a broader audience of imaging scientists and offer additional presentation opportunities, ISBI 2016 will continue to propose a second track featuring posters selected from 1-page abstract submissions without subsequent archival publication.

Venue:

ISBI 2016 will be held in the 4-star Clarion Congress Hotel Prague, one of the most modern congress hotels in Prague, Czech Republic. The hotel has space for up to 2500 delegates and a corresponding accommodation capacity, including a wellness and fitness center. It takes less than 15 minutes by Underground to reach the historical center of Prague, a UNESCO Heritage Site. Do not miss Prague's world-famous Old Town Square, Charles Bridge, and Prague Castle.



Important Dates:

4-page paper submission
August 3rd - October 26th, 2015

Author Notification for 4-page papers
December 23rd, 2015

**Final version of 4-page papers
& registration**
January 11th, 2016

Conference Chairs

Jan Kybic

Czech Technical University in Prague

Milan Sonka

The University of Iowa

Program Chairs

Karl Rohr

University of Heidelberg

Boudewijn Lelieveldt

Leiden University Medical Center, Netherlands

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Contact

Janice Sandler j.sandler@ieee.org

<http://biomedicalimaging.org/2016>

38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society



Empowering Individual Healthcare Decisions through Technology



Disney's Contemporary Resort at Walt Disney World® Resort *Lake Buena Vista (Orlando), Florida USA* **August 17-20, 2016**

The 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'16) will be hosted at Disney's Contemporary Resort at Walt Disney World® Resort, Lake Buena Vista (Orlando), Florida USA on August 17-20. The overall theme of the conference is "Empowering Individual Healthcare Decisions through Technology" and will cover diverse topics from cutting-edge biomedical and healthcare technology research and development to clinical applications and biomedical education. The conference program will also feature high-profile keynote lectures, minisymposia, workshops, invited sessions, oral and poster sessions, sessions for students and young professions, and exhibitions.

All are encouraged to submit papers to be considered for presentation at the EMBC'16. Conference themes include, but are not limited to:

- Biomedical Signal Processing
- Biomedical Imaging & Image Processing
- Micro- & Nano-bioengineering; cellular & tissue engineering
- Computational systems & synthetic biology; Multiscale modeling
- Cardiovascular & Respiratory Systems Engineering
- Neural Engineering, Neuromuscular Systems & Rehabilitation Engineering
- Wearable biomedical sensors & systems
- Bio-Robotics, Surgical Planning and Biomechanics
- Therapeutic & Diagnostic Systems, Devices and Technologies, Clinical Engineering
- Biomedical and Health Informatics
- Biomedical Engineering Education and Society



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All papers will be peer reviewed. Accepted full-length 4-page papers will appear in the Conference Proceedings and be indexed by IEEE Xplore and Medline/PubMed.

A very strong set of workshops and minisymposia will be presented, including Neural Engineering, Biomedical Big Data, Life Sciences across the IEEE, and Biomedical Engineering in Latin America.

For more information about EMBC'16, please visit the conference website:

<http://embc.embs.org/2016>

SAVE THE DATE

12 – 16 December 2016

Various biomedical grand challenges facing our society and the world can be addressed by interfacing biology and medicine with micro- and nanoscale technologies. These technologies hold great potential to impact early diagnosis, therapeutics, and management of disease. IEEE EMBS is sponsoring the second biennial Conference on Micro- and Nanoengineering in Medicine to foster interaction between scientists, engineers and medical researchers in the context of real-world medical needs and issues. The Conference will promote vigorous and open dialogue towards the development of cutting edge technologies for faster, more quantitative, and less expensive biomedical solutions using advances in micro and nanotechnology.



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Waikoloa, HI 96738
<http://www.hiltonwaikoloavillage.com/>



The IEEE Engineering in Medicine and Biology Society Mentor Program



Curious? Don't take our word for it! Here's what some of our program participants are saying...

"The EMBS mentoring program is fantastic. It allowed me to reconnect with the profession I love, and I so enjoy offering encouragement and sharing the lessons I've learned along the way with a very bright, up and coming biomedical engineer."

"My EMBS mentor is amazing! She helped me so much without being 'overly intrusive' and introduced me to some incredibly helpful industry resources and contacts, that will come in really handy during my job search."

Open to all EMBS members, our mentor program provides students and young professionals interested in the biomedical engineering profession with direct access to experienced mentors who can share valuable career guidance and advice, and contribute to professional and personal development. The program also provides experienced professionals with the opportunity to share their knowledge and inspire, encourage, and support future biomedical engineers.

Mentors (Professors, Industry Professionals)

Want to give back to your community? Serve as a role model, and provide guidance to the next generation of biomedical engineers.

Expand your own network, and connect with others in the field.

Mentees (Students/Young Professionals)

Have a question about one of the areas of Biomedical Engineering? Find a mentor who can explain and help you.

Network! Develop business contacts, access important industry information and activities, and gain valuable insights from experienced and successful professionals.

Learn more and sign up now!

The mentor program is a valuable part of your membership in EMBS.

Visit www.embs.chronus.com to get started.

There, you will find all the information you'll need, along with frequently asked questions for both mentees and mentors.

Connect with us!

IEEE Engineering in Medicine and Biology Society
445 Hoes Lane
Piscataway, New Jersey, USA 08854
e-mail: emb-exec@ieee.org



Find us on:



Connecting top talent to the best biomedical engineering jobs around the world.

No matter where you are in your career journey, whether you're trying to land your very first job, or if you've got years of experience under your belt, be sure to include EMBS' extensive network in your search.

The EMBS Career Center is the place to start!

We designed our Career Center with you in mind. We connect our members with top employers around the world.



Jobseekers

View Jobs: Access the newest and freshest jobs available to professionals seeking employment.

Post an anonymous resume: Post your resume online today! Whether you're actively or passively seeking work, your online resume is your ticket to great job offers.

Personal Job Alerts: Create Job Alerts and never let a matching job opportunity pass you by! New jobs that match your search criteria will be emailed directly to you.

Create Job Seeker Account: Log into your account to begin managing your job search. Create and manage job alerts and view job offers from employers.

Employers

Post a Job: Reach the most qualified candidates by posting your job opening on our online Career Center.

View the Resumes: Check out resumes today! We connect you directly with the most talented professionals in biomedical engineering.

Products and Pricing: Regardless of your staffing needs or budget, we have a recruitment product that will fit your business.

Access Your Account: Log in to begin managing your online recruiting account. Post jobs to our site and browse candidates interested in your positions.

Connecting Academia with Industry

Be sure to check out EMBS' regional career development opportunities, online resources, and special events. We're working hard to connect our members in academia with employers in biotech, medical device and pharmaceutical companies around the world.

Questions? Let us hear from you! Send an email to emb-exec@ieee.org.

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Department of
Biomedical Engineering

Columbia University

hhess@columbia.edu

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Author Index

A					
Aamo, Ole Morten	ThGT4.6	74	Adachi, Yoshiaki	ThBPoT2.12	39
Aarabi, Mohammad Hadi	ThFPoT5.12	63		FrET7.5	102
	FrFPoT2.9	108	Adam, Aikaterini	FrGT10.6	123
Aarabi, Parham	FrBPoT3.26	88	Adamo, Gabriele	SaBPoT2.27	136
Aarts, Ronald M.	WeAT17.5	6	Adapa, Bhagyaraja	ThFPoT23.1	72
	FrGT17.3	124		FrBPoT19.6	96
Aarts, Vincent	WeAT20.2	7	Adde, Lars	ThGT4.6	74
Aasen, Ansgar O.	FrFPoT3.6	110	Addison, Paul	FrBPoT1.12	85
Abasolo, Daniel	ThFPoT2.14	61	Adjei, Tricia	ThFPoT2.14	61
	FrGT4.2	121	Adler, Lewis	WeBPoT7.3	12
Abbas, Syed Muzahir	ThGT20.4	78	Adriani, Giulia	WeAT16.2	5
Abbasi, Hamid	ThGT18.1	77		WeET1.1	26
Abbott, Carmen	WeAT8.5	3	Ady, Ragou	ThBPoT18.6	50
Abbott, Derek	ThBPoT3.5	41	Aerts, Jean-Marie	FrFPoT5.6	114
Abdel Majeed, Yazan	ThAT10.3	35	Afanasova, Anastasiya	ThBPoT9.14	46
Abdel Wahed, Manal	ThAT10.5	35	Affagard, Jean-Sébastien	ThET6.1	56
Abdeldayem, Sara	SaBPoT2.4	135	Afghah, Fatemeh	FrBPoT10.5	92
Abdellah, Marwan	ThFPoT3.9	62	Afifi, Ahmed	ThAT7.3	34
	ThFPoT3.10	62	Afsharipour, Babak	FrBPoT2.12	86
Abderahman, Huthaifa	FrFPoT5.2	114	Afzal, Taimoor	WeBPoT1.3	7
Abdollahi, Farnaz	ThAT10.3	35	Agambayev, Sümeyra	FrGT4.1	121
Abdollahi, Masoud	ThET9.5	57	Aghababaei, Amin	ThBPoT10.2	46
Abdouni, Abdenaceur	ThBPoT4.3	41	Aghanavesi, Somayeh	FrFPoT6.5	116
Abdullah, Najdat	WeBPoT13.7	15	Aghdam, Amir G	ThET6.3	56
Abe Katsumi, Katsumi	ThFPoT19.1	71	Agildere, Ahmet Muhtesem	FrFPoT2.26	109
Abe, Erika	FrFPoT5.29	115	Agosta, Federica	SaBPoT2.9	135
Abe, Makoto	ThFPoT3.4	61	Agostinelli, Angela	ThBPoT2.34	40
	FrET1.2	100	Agostini, Valentina	FrBPoT2.15	86
Abe, Taishi	FrFPoT2.4	108		FrGT11.6	123
Abe, Yusuke	SaBPoT4.24	139	Agrafiotis, Panagiotis	FrBPoT5.6	90
Abell, Thomas	FrBPoT2.22	87	Agredo, Wilfredo	ThBPoT16.2	49
Abid, Abubakar	WeCT13.1	24		FrBPoT21.7	97
Aboody, Karen S	ThAT15.3	36	Agrimi, Jacopo	WeBPoT3.11	9
Abosch, Aviva	FrAT3.3	79	Aguiar, Ana	SaBPoT4.19	138
	FrAT3.4	79	Aguiar, Kleber de	ThFPoT9.14	65
	FrBPoT13.7	93	Aguilera, Todd	SaAT6.6	129
Abouchi, Nacer	ThFPoT20.4	71	Aguilo, Jordi	ThBPoT11.1	46
Abouhossein, Alireza	ThFPoT15.3	69	Ahluwalia, Arti	ThBPoT23.3	51
	SaBPoT5.34	140		FrAT20.1	CC
About Alla, Hassanien	ThFPoT4.3	62	Ahmad Bakir, Azam	WeAT2.1	1
Abraham, Gustavo Abel	ThBPoT16.3	49	Ahmad, Belal	ThBPoT17.2	49
Abreu de Souza, Mauren	ThAT6.4	34	Ahmad, Mohd Yazed	WeET20.1	32
Abry, Patrice	WeET5.1	28	Ahmad, Rana Fayyaz	WeCT19.6	26
	WeET5.6	28	Ahmadi, Amin	WeET8.3	29
	ThAT4.1	33	Ahmadi, Mahdi	FrGT12.3	124
	ThAT4.1	CC	Ahmadian, Alireza	ThBPoT20.2	51
Abtahi, Farhad	ThBPoT6.4	44	Ahmadian, Amirhossein	ThBPoT20.2	51
	ThBPoT24.3	52	Ahmed, Ashir	ThDT2.6	52
Abtahi, Shirin	ThBPoT24.3	52	Ahmed, Beena	WeAT17.3	6
Abu Sal, Heba	FrFPoT9.21	119		WeCT20.3	26
Accardo, Agostino	ThFPoT5.3	62		ThBPoT2.9	39
Acciai, Ludovica	FrGT19.3	125		FrBPoT3.24	88
Acciaroli, Giada	FrFPoT9.34	120	Ahmed, Rehan	ThAT4.6	33
Accoto, Dino	WeBPoT24.4	20	Ahmed, Shafi	ThGT2.3	73
	WeET10.3	29	Ahmed, Syed Zahid	WeAT8.3	3
	ThBPoT8.1	45	Ahn, Chisung	FrFPoT3.2	110
	ThBPoT19.4	50	Ahn, Euijoon	ThBPoT5.16	42
Achalakul, Tiranee	FrFPoT6.12	116	Ahn, Jae Hyun	ThBPoT16.5	49
Acharyya, Amit	WeBPoT8.1	12	Ahn, Joong Woo	FrFPoT3.16	110
	ThFPoT1.7	60		FrFPoT5.22	115
	ThFPoT23.1	72		FrFPoT6.6	116
	ThGT18.2	77	Ahn, Kihoon	FrFPoT3.9	110
	FrBPoT19.6	96	Ahrén, Bo	FrFPoT1.28	108
Achermann, Peter	ThDT1.3	52	Aiello, Lloyd P.	SaAT16.5	131
Ackland, David	FrAT1.3	79	Aihara, Mitsuki	SaBPoT1.42	134
Acosta, Oscar	WeET19.1	32	Akagawa Takeshi, Takeshi	ThFPoT19.1	71
	ThAT6.5	34	Akashi, Takuya	SaBPoT4.13	138
	ThAT19.1	CC		SaBPoT4.14	138
	ThAT19.3	38	Akazawa, Jun	FrFPoT1.2	106
	ThGT6.1	74	Akdemir Akar, Saime	FrBPoT3.12	87
	ThGT6.1	CC		FrGT4.1	121
	ThGT6.5	75	Akeju, Oluwaseun	FrET17.6	105
Acqualagna, Laura	WeCT3.5	21	Akgul, Arzu	FrFPoT4.31	113
	SaBPoT6.19	142	Akhbardeh, Farhad	FrET7.6	102
Adachi, Shinobu	SaBPoT6.28	142	Akiyoshi, Takumi	FrFPoT9.32	120
			Akkaya, Ilge	FrBPoT12.3	93
			Akl, Ahmad	ThGT4.3	74
			Akman Aydin, Eda	WeBPoT15.7	16

Aktar, Mst. Nargis	WeET6.6	28	Alkan, Ozlem	FrFPoT2.26	109
Aktaruzzaman, Md	WeBPoT1.1	7	Alkan, Sarper	ThBPoT5.1	41
	FrET2.1	100	Alkhatib, Rami	ThFPoT2.11	61
Akulov, Sergey	FrFPoT1.5	106	Allasia, Giampietro	ThFPoT11.2	65
	SaBPoT1.30	134	Allegaert, Karel	SaBPoT1.20	134
Akulova, Anna	FrFPoT1.5	106	Allegrini, Paolo	WeAT8.6	3
	SaBPoT1.30	134		WeBPoT3.11	9
Akutekwe, Arinze	SaAT21.2	133	Allen, Mitchell	ThGT11.3	76
Al Abed, Amr	ThAT2.1	33	Allen, Richard	FrBPoT14.1	94
	FrAT8.5	81		FrBPoT14.2	94
Al Amri, Intissar	FrFPoT9.21	119	Allende, Miguel A.	ThBPoT10.8	46
Al Atraktchi, Fatima Al-Zahraa	WeAT16.4	5	Allison, Garry	ThFPoT12.20	67
Al Faqheri, Wisam	ThBPoT8.5	45	Allison, Rachel Kim	FrBPoT24.1	97
Al Saeed, Sarah	WeBPoT9.2	13	Allison, Robert	FrBPoT15.6	94
Al Shaibani, Fahad	FrFPoT9.14	119	Alloni, Anna	ThFPoT5.11	63
Al Zaabi, Lateefa	FrFPoT9.21	119	Allotta, Benedetto	WeAT8.6	3
Al-Abed, Mohammad	FrBPoT6.7	90	Allsop, Thomas	ThFPoT11.1	65
Alagoz, Celal	ThFPoT10.9	65	Al-maadeed, Somaya	FrET16.2	104
Al-Ahmad, Hussein	ThAT19.6	38	Almabruk, Tahani	ThBPoT3.6	41
Alam, Md. Jahangir	WeET6.6	28	Almahasneh, Hossam	ThFPoT1.6	60
Al-Ammri, A. Salam	WeBPoT13.7	15	Almajidy, Rand Kasim	WeBPoT15.5	15
Alangari, Haitham M.	FrFPoT9.14	119	Almeida, António José	WeBPoT22.7	19
Alasty, Aria	ThET16.4	58	Almeida, Eliana Silva de	WeBPoT6.3	11
Alavi, Nezam	ThFPoT12.24	67	Almeida, Pedro	SaBPoT4.19	138
Alawi, Mulook	FrFPoT9.21	119	Almeida, Rute	FrBPoT3.8	87
Alazrai, Rami	ThFPoT20.1	71	Almodovar, Melvin	ThFPoT9.9	64
Alba, Alfonso	ThFPoT1.2	60	AlMuhairi, Hassan	WeAT7.6	3
	ThFPoT2.8	61	Al-Nashash, Hasan	SaAT10.1	C
	FrBPoT1.8	85		SaAT10.4	130
Albanese, Antonio	ThGT10.4	76	Al-nuaimi, Ali H.	ThFPoT2.6	61
	SaAT2.1	127	Al-Omar, Sally	WeET17.2	31
Al-Bashir, Areen	FrBPoT6.7	90		ThBPoT3.4	41
Albera, Laurent	ThAT19.3	38	Alon, Elad	ThAT20.1	38
	ThFPoT14.12	69	Alonazi, Khalid	WeET2.2	27
	FrET4.4	101	Alonso, Joan Francesc	FrGT5.3	121
Alberola-Rubio, Jose	SaBPoT3.28	137	Alsafar, Habiba	WeAT7.6	3
Albrecht, Ute	ThET16.1	58	Alsaleh, Samar	WeAT1.1	1
Alcántara-González, David	FrBPoT13.3	93		WeBPoT5.7	10
Aldeen, Mohammad	ThBPoT5.19	42	Alshaer, Hisham	ThGT18.4	77
Al-Diri, Bashir	ThFPoT6.7	63	Al-Shibaany, Zeyad	SaBPoT3.27	137
	ThGT7.5	75	Alshurafa, Nabil	ThAT12.2	36
	FrFPoT2.2	108	Alshut, Rüdiger	FrGT19.4	125
Alem, Leila	SaDT5.1	145	Alsufyani, Noura	ThBPoT5.32	43
Alessi, Alessio	ThBPoT19.4	50	Altaf-UI-Amin, MD.	SaBPoT8.11	144
Aletti, Federico	WeCT2.1	C	Althoefer, Kaspar	ThFPoT17.4	70
	SaBPoT1.8	133		FrAT12.3	82
Aletti, Matteo	ThFPoT6.7	63		SaAT1.1	127
Alexander, Frank	WeET16.3	31		SaAT12.6	130
	FrET8.4	102	Altintas, Ersin	ThFPoT19.1	71
	FrET8.6	102	Altobelli, Alessandro	FrBPoT16.1	95
Alexander, Yvonne	WeBPoT13.3	14	Altomonte, Daniele	ThFPoT12.5	66
Alfed, Naser	FrET16.1	104	Altunoglu, Hale	FrFPoT2.26	109
Alhajeri, Mona	FrBPoT21.3	96	Altuve, Miguel	ThFPoT9.3	64
Alho, Olli-Pekka	ThBPoT11.3	47	Álvarez, Daniel	ThBPoT2.20	40
	SaAT4.5	128		ThFPoT11.8	66
Alhonnoro, Tuomas	ThAT7.6	34	Alvarez, Jose	ThBPoT12.8	47
Ali Chérif, Arab	WeCT17.2	25	Alvarez, Mauricio A.	ThBPoT5.36	43
Ali, Abdulla	WeAT3.5	1		ThBPoT5.39	44
Ali, Ali Hussian	WeCT11.5	24		FrBPoT3.31	88
Ali, Imtiaz	ThBPoT10.7	46	Alvarez-Estevez, Diego	ThFPoT11.9	66
Ali, Mohydeen	FrAT18.2	83	Alves, Wandyr da Silva	FrFPoT9.6	119
Ali, Mona Abdelbaset Sadek	ThFPoT4.3	62	Alwan, Yaqub	WeAT15.1	5
Ali, Rheeda	WeET6.4	28	Alyassi, Shaikha	WeAT16.6	6
	FrET19.3	105	Amaral, Ademir	ThBPoT5.15	42
Ali, Sharib	WeET6.2	28	Amaro, Edson	WeCT19.4	26
Ali, Syed Saad Azhar	ThFPoT2.5	61	Amato, Francesco	WeBPoT11.2	14
Ali, Taqdir	ThFPoT22.6	72		ThGT16.1	76
Ali, Tayyba	ThGT10.2	76		ThGT16.1	CC
Aliau-Bonet, Carles	FrGT9.4	123		ThGT19.3	78
Alirezaie, Javad	ThBPoT20.2	51	Ambikairajah, E	FrBPoT1.13	85
Alitto, Anna Rita	WeBPoT6.16	11	Ambrogio, Nicholas	ThFPoT21.2	72
Aliverti, Andrea	ThBPoT4.8	41	Ambrosini, Emilia	WeAT11.3	4
	FrBPoT6.8	91		FrET11.5	103
Alizad, Azra	ThET6.5	56		FrFPoT4.23	113
Alizadeh Shalchy, Mahsa	FrFPoT2.9	108	Amend, Bastian	ThBPoT2.15	39
Aljama-Corrales, Tomas	WeET9.6	29	Amici, Roberto	ThDT1.1	52
	ThFPoT1.8	60	Amico, Enrico	ThGT17.5	77
Al-Jumaily, Adel	WeBPoT6.18	11	Amidi, Fardin	ThBPoT20.2	51
	ThFPoT2.15	61	Amies, Alexander C.	FrBPoT7.2	91
	FrET18.1	CC	Amin, Hafeez Ullah	ThFPoT2.5	61
	FrET18.2	105		FrGT11.4	123

Amin, Hayder	ThET3.1	55	Anter, Ahmed	ThFPoT4.3	62
	ThET3.2	55	Anthony, Brian W.	FrAT2.5	79
	FrDT10.2	99		FrET15.5	104
Aminaka, Daiki	WeET3.2	27	Anto, Evelyn	WeAT7.4	3
Amini, Amir	WeAT6.1	CC		WeBPoT6.21	12
Aminian, Kamiar	ThGT4.5	74	Antonakakis, Marios	FrGT4.5	121
	FrDT2.1	98	Antonelli Incalzi, Raffaele	ThBPoT25.4	52
Amoah, Benjamin	WeAT7.4	3	Antoni, Sven-Thomas	SaBPoT2.26	136
	WeBPoT6.21	12	Antonietti, Alberto	ThAT11.3	36
Amodei, Richard	FrFPoT5.10	114	Antonio, Bertoletti	WeET1.1	26
Amon, Peter	FrET20.4	106	Antoniou, Zinonas	WeAT8.1	3
Amor, James	ThET2.1	54	Antunes, Andre	WeAT10.1	3
	FrGT20.1	C	Antunes, Natacha	WeBPoT22.8	19
	FrGT20.4	125	Antuvan, Chris Wilson	WeBPoT16.5	16
Amorim, Edilberto	WeBPoT2.5	8		FrBPoT17.3	95
Amoros-Figueras, Gerard	FrBPoT11.7	93	Anwar, Abdul Rauf	ThFPoT5.10	62
Amoroso, Marisa	FrFPoT5.38	116	Anzai, Daisuke	ThGT20.5	78
Amri, Saber	FrFPoT9.37	120	Anzolin, Alessandra	ThET4.3	55
An, Chao	FrFPoT6.17	117	Aoi, Shinya	ThGT9.6	76
An, Hong-Sub	FrFPoT9.23	119		FrBPoT18.3	95
An, Jingzhi	FrGT4.6	121		SaBPoT5.23	140
An, Jinung	SaBPoT6.16	142	Aoki, Hirofumi	FrAT10.5	82
Anam, Khairul	FrET18.2	105	Aoki, Takafumi	WeBPoT5.5	10
Anan, Chanawat	FrBPoT2.11	86	Aoyama, Tomoko	WeBPoT1.11	8
Anandan, Princia	ThBPoT8.6	45	Apollo, Nicholas V.	FrFPoT4.14	112
Anastasiadou, Maria	WeET4.6	27		FrGT8.1	122
Anastasiou, Athanasios	FrET20.3	106	Appali, Revathi	ThFPoT13.6	68
Anavi, Yaron	ThBPoT4.9	41	Aprigliano, Federica	ThGT9.1	75
Andalibi, Vafa	WeCT8.2	23		ThGT9.2	76
Andersen, Björn	WeCT15.1	C	Aqueveque, Pablo	FrFPoT3.35	111
	WeCT15.4	24		FrGT12.6	124
Anderson, Jeff	FrET19.4	105		SaAT9.5	130
Anderson, Mike	ThBPoT3.6	41		SaBPoT5.27	140
Anderson, Sean R	SaBPoT8.18	144		SaBPoT6.36	143
Anderson, Shane	FrGT20.6	126		SaBPoT6.46	143
Anderson, Tom	FrET7.4	102		ThGT20.3	78
Anderson, William S.	ThFPoT13.7	68	Ara, Perzila	FrDT2.2	98
Ando, Hiroshi	ThET20.6	60	Arabiurrutia Altube, Elixabete	ThBPoT7.2	44
Ando, Joji	FrFPoT4.45	114	Arai, Miyako	WeBPoT22.4	18
Ando, Takafumi	WeBPoT1.11	8	Arai, Tsunenori	WeBPoT22.5	19
Ando, Yu	FrFPoT2.37	110	Arakaki, Xianghong	FrET3.2	101
Andolfatto, Gary	WeCT13.4	24	Arana, Estanislao	WeET7.4	28
Andorno, Federica	ThFPoT17.4	70		ThBPoT5.26	43
Andreoni, Giuseppe	FrDT8.4	99		ThFPoT5.5	62
Andrews, Chris	FrET15.6	104		ThFPoT5.8	62
Andrikos, Christos	WeBPoT25.6	20	Aranda, Alfonso	ThFPoT10.6	65
Andriulli, Francesco P.	ThET19.3	59	Aranda, Joan	ThET8.3	56
	SaBPoT2.6	135	Arandjelovic, Ognjen	ThAT12.4	36
Androwis, Ghaith	ThFPoT12.4	66	Arango Paredes, Juan David	FrBPoT21.7	97
	SaBPoT6.40	143	Arangua, Paul	FrET21.6	106
Andrzej, Sluzek	ThET5.2	55	Araújo, Adérito	SaAT19.6	132
Anestopoulos, Ioannis	ThAT16.4	37	Araújo, Bruno G. de	FrFPoT6.11	116
Ang, Kai Keng	WeBPoT15.11	16	Arbaban, Amin	ThBPoT1.6	38
	ThAT17.6	37	Arce Guevara, Valdemar Emigdio	ThFPoT1.2	60
	SaAT10.1	130	Arce-Diego, José L.	FrAT2.3	79
Ang, Su-Shin	ThFPoT18.1	70		FrBPoT23.4	97
Ang, Wei Tech	ThET7.3	56	Arce-Santana, Edgar Roman	ThGT6.3	75
Angela, Gall	ThAT10.1	35	Arefin, M. Riadh	FrBPoT1.7	85
Angeli, Timothy Robert	WeCT2.2	21	Aregueta-Robles, Ulises Alejandro	ThAT16.6	37
Angelini, Elsa	WeET19.2	32	Arends, Johan B.A.M.	WeBPoT3.7	9
	ThET7.1	C		FrBPoT1.16	85
Angelini, Leonardo	ThET18.3	59	Arevalo, John	WeBPoT6.22	12
Angermueller, Kai	SaAT3.5	127	Arezzo, Alberto	ThFPoT17.4	70
Angotzi, Gian Nicola	WeBPoT9.3	13	Argha, Ahmadreza	ThFPoT12.23	67
	FrDT10.2	99		FrBPoT15.8	94
Anguiano, María	SaAT19.4	132	Argiolas, Samuele	ThFPoT18.6	71
Anisha, Gururaj	ThFPoT21.2	72	Argohty, Rodrigo Esteban	FrFPoT1.24	107
Anishchenko, Lesya	WeAT17.1	6	Argyri, Marina	SaBPoT4.20	138
	WeAT17.2	6	Argyros, Antonis	FrAT7.3	81
Anjum, Tauqeer	ThFPoT5.13	63	Arheden, Håkan	SaBPoT4.27	139
	FrBPoT3.29	88	Ariano, Paolo	FrBPoT2.19	86
Anna Maria, Visco	FrGT3.1	120		FrET18.6	105
Anecchino, Luca Antonello	FrAT19.1	84	Arias, Ana	ThGT2.4	73
Annovazzi, Valerio	ThGT11.4	76	Arico, Pietro	ThFPoT13.5	68
Annunziata, Roberto	FrAT7.4	81		FrBPoT3.17	88
Annus, Paul	ThBPoT2.17	39		FrBPoT3.18	88
Ansari, Amir Hossein	FrAT18.5	83		FrET17.2	105
	SaBPoT1.27	134	Aricò, Pietro	WeCT10.5	23
Ansari-Asl, Karim	ThFPoT14.12	69	Arihiro, Koji	ThFPoT7.9	64
Ansermino, J. Mark	WeAT21.2	7	Ariki, Yasuo	FrFPoT4.27	113
	FrBPoT3.10	87	Arilli, Chiara	FrFPoT5.20	115
	FrGT17.6	125			

Bae, Joonho	FrFPoT5.26	115	Bao, Tian	ThFPoT12.26	67
Bafna, Abhishek	ThBPoT5.7	42		SaBPoT6.1	141
Baglio, Francesca	SaBPoT2.24	136	Baptista, Romeu	FrBPoT1.5	84
Bagnato, Carlo	FrGT3.5	121	Bär, Karl-Jürgen	ThBPoT3.3	40
Bagno, Andrea	FrGT2.4	120		FrBPoT3.11	87
Bagshaw, Dylan	FrFPoT9.25	119	Barabino, Gianluca	ThBPoT7.10	45
Bahal, Raman	FrFPoT3.11	110	Baragli, Paolo	WeET5.2	28
Bahney, Chelsea	ThGT2.6	73	Baran Pouyan, Maziyar	WeBPoT20.4	17
Bahrani, Masih	WeET3.4	27		ThFPoT3.7	61
Baig, Mirza Mansoor	WeBPoT20.6	17	Baranoski, Gladimir	WeBPoT8.4	12
	WeBPoT20.7	17		ThFPoT9.1	64
Bailey, Christopher	FrBPoT3.19	88		FrET5.6	102
Bailey, Michael	ThAT15.6	37	Barata, Catarina	ThAT19.2	38
Baillet, Sylvain	FrGT10.2	123		FrGT6.2	122
Bailon, Raquel	WeCT4.5	21	Baratelli, Francesco Maria	ThBPoT13.2	47
	ThBPoT11.1	46	Barazzetti, Livia	ThBPoT5.5	42
	FrBPoT3.6	87	Barbareschi, Giulia	FrBPoT17.2	95
Bajcsy, Ruzena	ThBPoT18.11	50	Barbaro, Massimo	SaAT9.1	129
	ThGT21.3	78	Barbay, Scott	WeET15.5	31
Bajic, Dragana	FrAT3.5	79	Barbé, Kurt	FrBPoT2.3	86
	FrGT18.1	125	Barbeiro, Sílvia	SaAT19.6	132
Bajlekov, Galin Ivanov	FrAT18.3	83	Barber, Thomas M.	ThET2.1	54
Bajpai, Anurag	WeCT9.6	23	Barbic, Franca	WeET9.3	29
Bajwa, Ednan K.	FrET17.6	105		WeET9.5	29
Bak, Changgyu	FrFPoT3.34	111	Barbieri, Riccardo	WeCT4.6	22
Bakal, Chris	SaBPoT8.18	144		WeET5.1	28
Bakewell, David	WeBPoT9.2	13		ThET4.4	55
Bakker, Erik N. T. P.	SaBPoT2.39	136		ThET5.1	C
Bakmand, Tanya	WeAT16.4	5		ThFPoT13.2	68
Bakstein, Eduard	WeCT5.3	22		FrAT18.4	83
Balachandran, Wamadeva	FrFPoT3.4	110		FrDT9.1	99
Balasingham, Ilango	ThET20.1	59		FrDT9.1	C
	ThET20.1	C		FrDT9.3	99
	ThET20.2	60		FrDT9.4	99
	ThET20.5	60		FrDT9.5	99
	ThGT20.1	C		FrDT9.6	99
	ThGT20.2	78		SaAT3.1	127
	FrGT5.6	121		SaAT3.1	C
Balasubramanian, Karthikeyan	WeAT3.3	1		SaAT3.2	127
	SaBPoT6.35	143		SaAT5.6	128
	SaBPoT6.38	143	Barbon, Cristian	FrFPoT1.29	108
Balasubramanian, Sivakumar	ThFPoT12.19	67	Barbosa Pereira, Carina	ThFPoT4.2	62
Balasundaram, Krishnanand	ThGT5.6	74	Barbosa, Valmir Carneiro	ThFPoT9.14	65
Balbastre, Yael	ThET7.1	56	Barboza, Juliano	FrFPoT3.35	111
Balbinot, Alexandre	WeBPoT1.5	8	Bardakjian, Berj Luther	ThFPoT13.8	68
	ThBPoT22.1	51		FrAT5.4	80
	FrBPoT19.5	96		FrBPoT13.4	93
Balconi, Michela	ThBPoT14.9	49	Bari, Vlasta	WeAT13.3	5
Baldelli, Elisa	FrBPoT10.3	92		WeCT18.1	25
Baldewijns, Greet	ThFPoT22.1	72		WeET9.3	29
	ThFPoT22.2	72		WeET9.5	29
	FrET2.4	100		ThET18.1	59
Baldoli, Ilaria	FrGT3.2	120	Barker, Chris	FrET15.1	104
	FrGT3.3	121	Barla, Annalisa	ThFPoT9.8	64
Baldwin, Keith	SaAT3.6	128	Barlaz, Marissa	WeCT7.2	22
Bales, Justin	ThET17.6	59	Barman, Sarah A	ThGT7.1	75
Balestra, Gabriella	WeBPoT23.4	19	Barnes, Nick	ThBPoT12.8	47
	WeBPoT25.4	20	Barone, Roberto	ThFPoT15.12	69
Balkan, Ozgur	ThBPoT14.14	49	Barone, Vinicio	FrBPoT2.14	86
	ThET19.1	59		FrFPoT3.32	111
	FrET10.2	103	Baroni, Guido	ThBPoT9.9	46
Ballesteros, Luis	FrBPoT22.4	97		ThGT6.4	75
Balomenos, Athanasios	FrBPoT9.6	92	Baronov, Dimitar	ThFPoT9.9	64
Bambang Oetomo, Sidarto	FrBPoT19.1	95	Barra, Beatrice	ThFPoT17.3	70
Bamidis, Panagiotis	FrGT20.5	126		FrFPoT2.38	110
Ban, Daisuke	FrBPoT22.3	97	Barrella, Massimo	FrGT2.1	120
Banan Sadeghian, Ramin	SaAT9.2	129	Barrera, Francisco	FrFPoT3.11	110
Bandinelli, Stefania	ThFPoT22.4	72	Barresi, Giacinto	ThFPoT17.17	70
	FrDT2.4	98	Barrias, Cristina C	WeCT16.2	25
Bandini, Andrea	FrFPoT2.3	108	Barriga-Rivera, Alejandro	ThBPoT12.3	47
	SaBPoT1.6	133	Barth, Jens	ThBPoT6.1	44
Bandia, Aishwarya	FrFPoT4.7	112		ThGT4.2	74
	FrFPoT5.3	114		ThGT18.6	77
Banerjee, Jeet	ThGT16.4	77	Barthel, Alexander	ThFPoT17.14	70
Banerjee, Nilanjana	FrBPoT10.6	92	Barthod, Christine	FrBPoT22.1	97
Banerjee, Swapna	SaAT9.6	130		SaBPoT5.24	140
Bang, Jaehun	ThFPoT22.6	72	Bartlett, Harrison Logan	ThGT9.5	76
Bang, Seokyoung	SaBPoT6.18	142	Barui, Ananya	ThGT16.5	77
Banik, Brittany	ThDT9.1	53	Barzon, Luisa	FrBPoT10.1	92
Banos, Oresti	ThFPoT22.6	72	Basaia, Silvia	SaBPoT2.9	135
Bañuelos-Cabrera, Ivette	FrBPoT13.3	93	Basak Chowdhury, Kaushik	WeBPoT20.8	17

Basak, Kausik	FrBPoT4.2	89	Beitone, Clément	WeAT6.1	2
Basar, Md.Rubel	WeET20.1	32	Bekrater-Bodmann, Robin	SaAT10.6	130
Basarab, Adrian	FrBPoT5.10	90	Belda-Lois, Juan-Manuel	ThFPoT12.14	66
	SaAT6.5	129		SaBPoT1.5	133
Baselice, Fabio	ThBPoT5.12	42	Belev, George	SaBPoT2.7	135
	ThBPoT5.30	43	Belfatto, Antonella	ThBPoT9.9	46
Baselli, Giuseppe	ThAT7.1	C	Belhage, Bo	FrBPoT12.5	93
	ThBPoT2.18	39	Bell, Jason	ThFPoT21.6	72
	ThET6.1	CC	Bellafqira, Reda	ThBPoT4.10	41
	FrBPoT4.8	89	Bellagambi, Francesca	FrGT12.5	124
	FrFPoT2.38	110	Bellagnech, Ahmed	FrFPoT4.37	113
	SaBPoT2.12	135	Bellanger, Jean-Jacques	FrET19.2	105
	SaBPoT2.24	136	Bellazzi, Riccardo	WeET12.1	C
	SaBPoT2.36	136		WeET12.2	30
Bashar, Khayrul	FrFPoT1.17	107		WeET12.4	30
Bashford, Greg	ThET6.2	56		ThAT12.1	CC
Basilakis, Jim	FrBPoT1.13	85		ThFPoT5.11	63
Bassani, Giulia	ThFPoT22.8	72		SaAT20.4	132
Basser, Peter	ThAT15.1	36	Bellesi, Michele	FrBPoT1.20	85
	FrBPoT23.2	97	Belli, Maria Luisa	ThGT6.6	75
Basset, Olivier	WeCT6.6	22	Bellini, Alessandro	ThFPoT13.1	67
Bassetto, Franco	ThBPoT14.2	48	Bellos, Christos	WeBPoT10.7	13
Bassi, Anna Maria	ThAT16.1	37	Belluco, Paolo	WeET11.4	30
Bastawrous, Andrew	FrET20.1	106	Belter, Joseph	ThFPoT15.6	69
Bastogne, Thierry	ThBPoT9.1	45	Beltrán Molina, Ferney Alberto	WeET18.3	32
Baston, Chiara	FrBPoT10.4	92	Beltrán, Jessica	WeCT9.1	23
Bastos, Teodiano	ThAT17.2	37	Ben Ayed, Mounir	FrFPoT9.37	120
	FrBPoT3.16	88		FrFPoT9.38	120
Basu, Anup	ThBPoT5.32	43	Ben Bashat, Dafna	FrGT7.2	122
Batchelor, John	ThET17.1	58	Ben Gur, Hila	WeBPoT12.6	14
Bates, Declan Gerard	WeBPoT11.2	14	Benaissa, Mohammed	ThAT5.6	34
	WeBPoT11.3	14	Benali, Habib	ThFPoT4.6	62
	WeBPoT11.4	14	Bénar, Christian G.	WeBPoT3.6	9
	ThGT10.2	76	Benatti, Simone	ThBPoT7.8	45
Batista, Levy	ThBPoT9.1	45	Benayahu, Dafna	WeBPoT6.9	11
Batista, Luiz Alberto	ThBPoT2.23	40	Bendale, Geetanjali	WeBPoT14.1	15
	SaBPoT1.18	134	Benedí, Jose Miguel	WeET12.3	30
Batkin, Izmail	ThBPoT13.17	48	Benhacene, Raifane	FrET17.2	105
	SaAT16.4	131	Benini, Luca	ThBPoT7.8	45
Battaglia, Edoardo	ThAT8.1	35	Benitez, Raul	FrBPoT4.15	89
Battini, Elena	SaBPoT5.2	139		SaBPoT2.29	136
Batzianoulis, Iason	FrBPoT17.3	95	Benkrid, Khaled	FrGT16.6	124
Baud-Bovy, Gabriel	SaAT10.5	130	Bennet, Laura	ThGT18.1	77
Bauernfeind, Günther	WeET3.1	27	Bennett, Daniel	ThAT9.2	35
Baum, Stefi	ThFPoT5.2	62	Bennett, Michael John	ThBPoT4.6	41
Baumann, Michael	WeAT1.6	1	Bennett, Stephanie Louise	FrGT6.5	122
Baumert, Mathias	WeCT18.4	25	Bennett, Surussawadi	ThBPoT4.6	41
	WeCT18.6	25	Bennewitz, Roland	SaAT18.4	132
	ThBPoT3.5	41	Bensaid, Siouar	FrET4.4	101
Baumgarten, Daniel	SaBPoT1.25	134	Bensamoun, Sabine	ThET6.1	56
Bay, Omer Faruk	WeBPoT15.7	16		ThET6.1	C
Bayat, Mahdi	ThET6.5	56		FrBPoT17.4	95
Bayes de Luna, Antonio	WeCT18.5	25	Bentler, Christian	WeBPoT14.9	15
Bayes-Genis, Antoni	WeAT13.6	5	Bento, Conceição	ThGT18.5	77
Bayford, Richard H.	WeCT5.4	22	Benvenuto, Eugenio	WeBPoT9.7	13
Bazzi, Oussama	FrAT18.2	83	Berdondini, Luca	WeBPoT9.3	13
Beani, Elena	FrGT3.2	120		ThET3.1	55
Beardsley, Scott	FrFPoT4.24	113		ThET3.2	55
Bearzi, Claudia	WeAT16.6	6		FrDT10.2	99
Beatson, Alexander	ThGT10.1	76	Beredimas, Nikolaos	ThAT12.5	36
Beattie, Zachary Todd	SaAT18.3	131	Berenfeld, Omer	ThET4.1	55
Beaulieu, Christopher	FrBPoT6.1	90	Beretta, Elena	ThFPoT12.5	66
Becker, Clemens	ThGT4.5	74		FrBPoT13.10	94
	FrDT2.3	98		FrGT3.6	121
	FrET2.1	C	Beretta, Elisa	ThFPoT17.3	70
Becker, Hanna	FrET4.4	101		ThGT8.4	75
Beckerle, Philipp	FrAT1.5	79	Berg, Sebastian	ThET18.6	59
Bedeloglu, Merve	FrFPoT4.31	113	Bergeles, Christos	ThGT8.5	75
Bedini, Remo	WeAT8.6	3	Berger, Denise J	ThDT8.3	53
Begalinova, Ainur	ThAT9.6	35	Berger, Theodore	ThAT2.3	33
Begg, Rezaul	FrAT1.3	79		ThAT11.1	C
Behairy, Hatim	ThAT5.6	34		ThAT11.6	36
Behboodi, Ahad	FrAT2.2	79		ThBPoT9.16	46
Behera, Santosh Kumar	WeBPoT5.1	10		ThET11.4	58
Beheshti, Soosan	WeAT5.4	2		ThET11.5	58
	FrBPoT3.16	88		ThFPoT13.9	68
Bei, Ekaterini	ThFPoT9.11	65		FrET10.4	103
	FrBPoT10.2	92	Bergeron, Cyril	FrET20.4	106
	FrBPoT19.7	96	Berg-Kirkpatrick, Taylor	SaBPoT3.6	137
Beis, Antonios	WeBPoT25.9	20	Bergmann, Ronny	SaAT18.4	132
Beissner, Florian	FrDT9.2	99	Bergsma, Arjen	SaBPoT5.1	139
	FrDT9.6	99			

Bergstrøm, Jennifer Panugan	FrAT2.6	79	Bianchi, Camilla	FrBPoT20.5	96
Beris, Alexandros	WeET2.1	27	Bianchi, Matt T.	FrBPoT20.3	96
Berlin, Jacob M	ThAT15.3	36	Bianchi, Matteo	WeAT12.6	4
Bermúdez i Badia, Sergi	WeAT18.3	6		WeAT13.4	5
Bernabei, John	SaBPoT6.4	141		ThAT8.1	35
Bernabeu, Miguel O.	SaAT16.5	131		ThFPoT14.2	68
Bernal, Jorge	WeAT9.3	3		FrAT12.4	82
Bernardes, Rui	SaAT19.6	132	Bianchi, Sabrina	FrFPoT3.1	110
Bernert, Marie	WeBPoT14.5	15	Bianchi, Valentina	ThFPoT21.8	72
Bernieri, Giuseppe	SaAT15.5	131	Bianciardi, Marta	ThET4.4	55
Berrios, Reivian	ThFPoT12.15	67		FrDT9.1	99
Berry, Damon	FrBPoT21.1	96	Bianco, Maria Giovanna	FrFPoT4.4	112
Bertholon, François	SaAT4.3	128	Bianco, Rohan	ThAT8.6	35
Bertoldi, Serena	WeCT16.6	25	Bianco, Sabatino	WeBPoT7.7	12
Bertoldo, Alessandra	WeET19.1	CC	Bianconi, Fortunato	FrBPoT10.3	92
	WeET19.3	32	Bibari, Olivier	FrBPoT24.1	97
	ThDT5.1	CC	Bibas, Thanos	WeBPoT10.7	13
	FrFPoT9.12	119	Bicchi, Antonio	WeAT13.4	5
Bertolotto, Delfina	ThDT6.4	53		ThAT8.1	35
Bertomeu-Motos, Arturo	WeBPoT19.4	17		FrBPoT16.1	95
	FrFPoT9.2	118	Bierling, Bart	ThFPoT12.6	66
Bertos, Georgios	ThAT9.1	35	Biesmans, Wouter	ThGT3.4	74
	ThAT9.1	C	Biffi, Emilia	ThBPoT18.7	50
Bertrand, Alexander	ThGT3.1	C		FrGT3.6	121
	ThGT3.4	74	Bigucci, Alessandro	ThBPoT7.3	44
Bertrand, Philippe	WeET6.3	28	Bikson, Marom	WeAT10.5	4
Bertschi, Mattia	WeAT20.1	7	Bilger, Alexandre	ThBPoT20.1	51
	SaAT17.2	131	Bilgic, Vedat	FrBPoT3.12	87
	SaAT17.4	131		FrGT4.1	121
	SaAT17.6	131	Billard, Aude	FrBPoT17.3	95
Bertschy, Gilles	WeET18.1	31	Bilo, Grzegorz	FrDT1.5	98
	FrBPoT2.24	87	Bilotta, Mariaconcetta	WeBPoT11.2	14
Bertuccio, Matteo	WeET11.2	30		ThGT16.1	76
Besias, Nicolaos	FrBPoT5.2	90	Binefa, Xavier	SaAT6.6	129
Besio, W. G.	WeBPoT15.5	15	Biraben, Arnaud	FrAT5.5	80
	WeET20.1	C	Birbaumer, Niels	WeBPoT15.9	16
	FrBPoT13.3	93		WeET3.6	27
Besset, Romain	ThAT8.6	35	Birch, Anthony Alan	WeCT18.2	25
Best, Matthew	ThGT11.3	76	Bischof, André	ThBPoT6.6	44
Betancur, Julián	ThAT6.3	34	Bisgaard, Sissel	WeBPoT3.14	9
Betta, Monica	WeAT17.4	6	Bisio, Federica	WeBPoT16.5	16
	ThFPoT9.7	64	Biswal, Siddharth	FrBPoT20.3	96
Bevilacqua, Maurizio	FrGT2.1	120	Biswas, Abhishek	ThBPoT13.13	48
Beyrau, Andreas	FrBPoT4.8	89	Biswas, Jit	WeAT18.4	6
Bezerianos, Anastasios	ThBPoT3.11	41	Bizopoulos, Paschalis	FrBPoT12.1	93
	ThET16.3	58		FrBPoT12.2	93
	ThFPoT13.5	68	Bjune, Caroline	SaAT3.4	127
	ThFPoT13.12	68	Blaber, Andrew Philip	WeBPoT21.3	18
Bezuidenhout, Deon	SaDT11.1	146	Blackford, Ethan	FrBPoT7.1	91
	SaDT11.5	146	Blanc, Raphaël	WeBPoT5.4	10
Bhagat, Yusuf	SaDT8.3	146	Blanche, Tim	FrFPoT3.29	111
Bhakta, Heran	FrDT16.5	100	Blanik, Nikolai	ThAT6.1	34
Bharadwaj, Akshay	FrBPoT6.6	90	Blankertz, Benjamin	WeCT3.5	21
Bhardwaj, Swati	FrBPoT19.6	96		SaBPoT1.14	133
Bhaskar, Harish	WeBPoT5.1	10		SaBPoT6.19	142
Bhatia, Ajay	WeBPoT6.5	11		SaBPoT6.23	142
Bhatt, Mahabaleswara R	FrFPoT2.11	108	Blase, Bastian	FrAT19.3	84
Bhattacharya, Aparajita	FrFPoT3.7	110	Blazek, Vladimir	ThAT6.1	34
Bhatti, Pamela	WeBPoT5.10	10		ThFPoT4.2	62
	FrDT5.2	98	Bleckmann, Horst	ThFPoT7.7	64
Bhaumik, Basabi	WeBPoT8.8	13	Blondel, Walter	WeET6.2	28
Bhidayasiri, Roongroj	FrBPoT2.11	86	Blostein, Dorothea	ThFPoT12.17	67
Bhudia, Sunil	FrBPoT11.1	92	Blouin, Jean-Sébastien	FrGT11.2	123
Bhuiyan, Shoaib	WeBPoT6.11	11	Blu, Thierry	ThBPoT2.32	40
Bl, LEI	ThBPoT5.16	42	Bluestein, Danny	WeAT12.1	4
Biagini, Denise	FrGT12.5	124		WeAT12.1	CC
Bian, Dayi	ThET3.3	55		WeAT12.2	4
Bian, Gui-Bin	ThFPoT17.12	70		WeAT12.6	4
	FrAT16.5	83		WeBPoT21.5	18
Bianchi, Anna Maria	WeAT17.1	CC		SaDT7.2	146
	WeCT4.1	C		SaDT7.4	146
	WeCT4.6	22	Blumenfeld, Zachary	ThBPoT13.12	48
	WeET18.1	31	Boampong, Derrick	FrBPoT13.5	93
	WeET18.1	C	Bocchi, Leonardo	FrGT2.1	120
	ThBPoT11.4	47		FrGT2.1	C
	ThET1.1	54		FrGT2.5	120
	ThFPoT13.2	68		SaAT19.1	CC
	FrAT3.1	79		SaAT19.2	132
	FrDT9.6	99	Bochkarev, Mikhail	WeAT17.1	6
	FrGT5.2	121		WeAT17.2	6
	SaAT10.1	CC	Bock, Karlheinz	FrBPoT8.6	91

Bodala, Indu Prasad	SaAT10.4	130	Bougrain, Laurent	ThET11.2	58
Bode, Johannes G.	ThET16.1	58	Boukadoum, Mounir	ThFPoT8.3	64
Bodí, Vicente	WeCT7.6	22	Boukany, Pouyan	WeET16.6	31
Boechat, Pedro	ThAT7.6	34	Boulanger, Pierre	ThBPoT4.5	41
Boegel, Marco	WeET7.2	28		ThFPoT3.1	61
Boesch, Chris	ThBPoT5.22	43		FrET7.3	102
Boeser, Fabian	WeBPoT7.2	12	Bountris, Panagiotis	FrFPoT6.25	117
Böhme, Andrea	SaBPoT6.17	142		SaAT20.1	132
Böhnke, Frank	WeBPoT10.7	13	Bounyong, Souksakhone	SaBPoT6.28	142
Boi, Fabio	WeAT3.1	1	Bourantas, Christos	FrBPoT12.1	93
Boisclair, Dominic	ThET9.1	57	Bouridane, Ahmed	FrET16.1	104
Bojorges-Valdez, Erik Rene	FrFPoT9.5	118		FrET16.2	104
Bojovic, Bosko	ThFPoT11.1	65		SaAT21.1	132
Boldrini, Luca	WeBPoT6.16	11	Bourke, Alan	ThGT4.5	74
Bolea, Juan	FrBPoT3.6	87	Bourquard, Aurelien	FrGT6.4	122
Bolic, Miodrag	ThBPoT13.17	48	Bouslimi, Dalel	ThBPoT4.10	41
	FrFPoT5.2	114	Bouteiller, Jean-Marie Charles	ThBPoT9.16	46
	SaAT16.4	131	Boutelle, Martyn G.	FrGT8.3	122
Bolster, Nigel Magnus	WeAT8.1	C	Bouwsema, Hanneke	FrET11.1	103
	FrET20.1	106	Bouza Dominguez, Jorge	ThFPoT4.5	62
Bommarito, Giulia	ThFPoT13.1	67	Bovi, Gabriele	FrET2.1	100
Bomzon, Ze'ev	FrBPoT23.1	97	Bowyer, Jack Edward	WeBPoT11.3	14
	FrBPoT23.2	97	Boyd, Lara	ThFPoT12.24	67
Bonanni, Enrica	FrBPoT2.23	87	Boyett, Mark Richard	WeAT2.3	1
Bonardi, Daniela Rita	FrET2.1	100	Boylan, Geraldine	ThAT4.6	33
Bonato, Paolo	WeET25.1	32		FrAT18.6	84
	ThBPoT14.12	49		FrBPoT1.4	84
	SaAT17.3	131	Boyle, Gerard	WeET9.4	29
Bond, Rodd	ThBPoT25.2	52	Boyle, Justin	WeCT8.6	23
Bonelli, Stefano	FrBPoT3.18	88	Bozanic, Nebojsa	FrAT3.5	79
Bonfiglio, Annalisa	ThBPoT7.10	45	Bozorgzadeh, Bardia	ThGT3.3	74
	FrDT10.3	99		FrET9.1	103
	SaAT9.1	129	Bozzali, Marco	FrDT9.4	99
	SaAT9.1	C	Bozzetti, Michele	FrFPoT5.38	116
Bongers, Raoul M	FrET11.1	103	Bracio, Boris Romanus	FrFPoT6.23	117
Boni, Enrico	SaAT19.2	132		FrFPoT7.4	117
Bonilla, Isela	WeBPoT17.3	17		FrFPoT8.13	118
	ThBPoT18.4	50	Bradley, T. Douglas	ThGT18.4	77
Bonizzi, Pietro	ThFPoT10.6	65	Brady, Jeanne	SaAT3.4	127
	FrGT18.3	125	Braga, Carlos Fellip	ThFPoT23.4	73
Bonmassar, Giorgio	WeCT7.1	CC	Bragos, Ramon	FrBPoT11.7	93
	WeCT7.5	22	Brahimi, Nenada	FrFPoT2.3	108
Bonn, Kenlyn	FrBPoT2.3	86	Brailevski, Vladimir	WeBPoT10.5	13
Bonnet, Stéphane	FrET17.5	105		ThET9.4	57
Bonometti, Danilo	FrFPoT9.26	119	Brain, Keith L.	SaAT16.6	131
Bonomi, Alberto	FrGT15.5	124	Brambilla, Lorenzo	WeAT13.2	5
Bonomo, Pierluigi	FrFPoT5.20	115	Brambilla, Paolo	ThDT5.1	C
Boon, Mei-Ying	WeCT10.1	23	Brambilla, Valerio	WeAT13.2	5
Boonstra, Tjeerd	FrET20.2	106	Branagh, David	WeBPoT20.2	17
Boor, Rainer	FrAT5.3	80	Branca, Jacopo	SaAT19.2	132
Borba, Gustavo Benvenuti	ThAT6.4	34	Brandmaier, Philipp	ThAT7.6	34
Borel, Jean Christian	WeET20.5	32	Branebjerg, Jens	FrBPoT12.5	93
Borges, Ana F. T.	SaAT5.2	128	Brånemark, Rickard	WeBPoT16.6	16
Borges, Diogo Menezes	ThFPoT19.6	71	Bras, Susana	ThAT4.5	33
Borghini, Gianluca	WeCT10.5	23		ThET2.2	54
	ThFPoT13.5	68		FrAT17.6	83
	FrBPoT3.18	88	Brave, Michael	WeAT15.4	5
	FrET17.2	105	Breault, Macauley S.	SaAT1.4	127
Borghi-Silva, Audrey	ThBPoT11.4	47	Bredeson, Samuel	WeBPoT14.1	15
	SaBPoT4.21	138		WeBPoT14.2	15
Borgundvaag, Bjug	FrBPoT3.26	88	Breen, Paul	FrGT17.2	124
Borgwardt, Stefan	ThDT5.3	53	Brendle, Christian	SaBPoT3.3	137
Boric-Lubecke, Olga	FrGT12.1	123	Brennan, Chris	ThFPoT21.7	72
Borisoff, Jaimie F.	ThFPoT21.5	72	Bresciani, Jean-Pierre	ThFPoT20.3	71
Borkowski, Karol	WeAT19.2	6	Bressan, Nadja	SaDT2.1	C
Borrelli, Pasquale	ThBPoT5.24	43		SaDT2.3	145
Borreo, Alessandro	WeBPoT6.10	11	Bressler, Neil	SaBPoT2.2	135
Boschetto, Davide	FrBPoT4.3	89	Brewer, Gregory	FrFPoT3.7	110
	SaAT19.5	132	Brichetto, Giampaolo	ThFPoT9.8	64
Bosenberg, Marcus	FrFPoT3.11	110		FrET3.3	101
Boser, Bernhard	ThAT20.1	38	Bridgeman, Devon	FrDT5.4	98
Bosshard, John	FrFPoT2.7	108	Brie, David	FrBPoT9.4	92
Bossy, Emmanuel	SaDT6.2	145	Brignani, Debora	ThBPoT2.3	39
Botero, Andres Felipe	FrET6.4	102	Brink, Paul	WeAT13.3	5
Botter, Alberto	ThBPoT14.3	48	Brischwein, Martin	FrET8.1	CC
	FrBPoT15.4	94		FrET8.2	102
	SaBPoT6.24	142		FrET8.3	102
Böttrich, Marcel	ThGT2.2	73	Brisk, Philip	FrDT16.4	100
Boubchir, Larbi	WeCT17.2	25	Britz, Gavin	FrET19.4	105
Boudria, Yacine	WeBPoT15.5	15	Brizzi, Filippo	WeCT6.3	22
Boughaba, Soraya	SaBPoT1.12	133	Broccard, Frederic	ThET11.1	57

Cancelli, Andrea	WeAT10.5	4	Casadio, Maura	ThFPoT12.29	67
Candra, Henry	FrBPoT2.5	86		ThFPoT13.1	67
	FrET17.4	105		FrET3.3	101
Canichella, Antonio	WeBPoT13.2	14		FrFPoT4.21	112
Cannatà, Vittorio	FrET15.4	104		SaBPoT6.20	142
Cannella, Ferdinando	ThAT8.1	35		SaBPoT6.22	142
	FrFPoT5.35	116		SaBPoT6.41	143
Cano, Irene	WeCT16.4	25	Casagrande, Giustina	FrBPoT20.5	96
Cantarella, Giuseppe	WeBPoT23.2	19	Casajús, José Antonio	WeCT4.5	21
Cantisani, Giorgia	FrAT17.3	83	Casals, Alicia	WeAT1.1	1
Cantwell, Chris	WeET6.4	28		WeBPoT5.7	10
	FrET19.3	105		ThET8.3	56
Canu, Elisa	SaBPoT2.9	135		ThET10.6	57
Canul-Reich, Juana	FrET16.6	104	Casamassima, Filippo	ThBPoT7.8	45
Cao, Hong	WeCT9.4	23	Casanova, Michela	WeBPoT11.5	14
Cao, Muyun	SaAT8.4	129	Casaseca-de-la-Higuera, Pablo	FrBPoT3.30	88
Cao, Youfang	SaDT9.3	146	Casati, Marta	FrFPoT5.20	115
	SaDT9.4	146	Caschera, Stefano	ThET4.3	55
Caola, Iole	FrBPoT4.5	89	Casellato, Claudia	WeET11.2	30
	FrBPoT22.4	97		ThAT11.3	36
Caon, Maurizio	FrDT8.1	99		ThDT6.1	53
Capadona, Jeffrey	SaBPoT6.5	141	Casson, Alexander James	WeBPoT14.4	15
	SaBPoT6.26	142		ThBPoT13.14	48
Caparelli, Claudia	WeAT21.1	7		ThET17.1	58
Capecchi, Marianna	FrAT1.1	79		FrDT7.1	98
	SaAT15.2	130		FrDT7.1	C
Capitanelli, Leonardo	FrAT1.1	79		FrFPoT9.16	119
Capo, Alessandro	SaBPoT1.6	133		FrFPoT9.17	119
Caponero, Michele Arturo	WeBPoT22.2	18		SaDT21.1	147
Cappagli, Giulia	SaAT10.5	130	Castaldo, Rossana	FrGT20.1	125
Cappelli, Carla	ThFPoT24.1	73	Castañeda, Benjamín	ThET6.4	56
Cappelli, Silvia	WeBPoT22.2	18	Castaneda-Villa, Norma	ThBPoT22.2	51
Cappello, Leonardo	ThBPoT18.8	50		ThFPoT1.8	60
	ThBPoT18.9	50		FrGT5.4	121
Capurro, Clelia	WeAT11.1	4	Castano, Oscar	WeCT16.4	25
Caracciolo, Pablo	ThBPoT16.3	49	Castaño-Candamil, Juan Sebastián	ThGT3.5	74
Caramelo, Francisco	SaAT19.6	132	Castelhamo, João	ThET19.4	59
Carassiti, Massimiliano	WeCT13.2	24	Castellani, Umberto	ThDT5.2	53
Carberry, Angela	SaBPoT8.3	144	Castellanos, Norma Pilar	WeAT2.5	1
Carbone, Marina	ThFPoT24.1	73	Castellaro, Marco	FrFPoT9.12	119
	ThFPoT24.2	73	Castelli, Enrico	ThBPoT14.5	48
Cardelino, Juan	ThET13.3	58	Castelli, Joël	ThGT6.1	74
Cardinale, Francesco	FrFPoT2.38	110	Castelo-Branco, Miguel	ThET19.4	59
Cardona, Narcis	ThGT20.2	78	Castelvetro, Valter	FrFPoT3.1	110
Cardoso Rodrigues, Bruno Daniel	FrFPoT9.7	119	Castiglioni, Paolo	WeAT13.2	5
Cardoso, Bruna	ThFPoT2.13	61	Castilla, Carlos	SaAT19.4	132
Carek, Andrew	ThBPoT6.2	44	Castro, Maria Claudia F.	FrFPoT9.6	119
	FrFPoT5.11	114		FrFPoT9.7	119
Carender, Wendy	ThFPoT12.26	67	Castro-Gonzalez, Carlos	FrGT6.4	122
Carey, Carole C.	SaDT1.1	C	Castronovo, Anna Margherita	WeAT11.5	4
	SaDT1.2	145	Catalán Orts, Jose María	WeBPoT19.4	17
Carlen, Peter L.	FrBPoT13.4	93	Cattaneo, Giovanni Mauro	ThGT6.6	75
Carleton, Penny	FrDT5.3	98	Cattelani, Luca	FrDT2.4	98
Carlone, Giuseppina	FrFPoT5.38	116	Cau, Nicola	SaBPoT3.9	137
Carlson, Tom	FrBPoT17.2	95	Caulfield, Brian	WeAT21.4	7
Carlsson, Marcus	SaBPoT4.27	139		ThGT21.1	78
Carmena, Jose M.	ThAT20.1	38		FrET2.3	100
Carmichael, Marc Garry	WeBPoT19.1	17	Caune, Vairis	WeBPoT4.9	10
	ThAT8.1	C	Cauwenberghs, Gert	WeBPoT8.3	12
	ThAT8.3	35		ThET11.1	57
Carminati, Marco	ThBPoT7.11	45		ThFPoT1.3	60
Carmo, Maria Beatriz	ThFPoT23.3	72		ThFPoT1.5	60
Carnal, David	ThET5.4	56		FrGT5.5	121
Carnicelli, Luca	FrBPoT2.23	87	Cavoretto, Roberto	ThFPoT11.2	65
Caroppo, Andrea	FrFPoT8.6	118	Cavuscens, Samuel	FrET15.2	104
Carpino, Giorgio	WeAT21.1	7	Caytak, Hershel	ThBPoT13.17	48
	ThFPoT15.12	69	Cazoulat, Guillaume	ThGT6.1	74
	FrBPoT16.5	95	Cazuguel, Guy	FrET7.1	102
Carrara, Marta	ThBPoT2.18	39	Cebeiro, Javier	FrBPoT4.16	89
Carrault, Guy	ThGT2.5	73	Cecchetto, Claudia	WeCT5.2	22
Carreiras, Manuel	FrET3.1	101		ThFPoT13.11	68
Carrel, Thierry	ThBPoT10.6	46	Cecchi, Francesca	FrGT3.1	CC
Carrillo, Alejandro	FrFPoT9.4	118		FrGT3.2	120
Cartocci, Giulia	WeCT10.5	23		FrGT3.3	121
Carton, Amelia	FrBPoT13.5	93		FrGT3.4	121
Caruso, Maria Vittoria	WeBPoT12.7	14	Cecchini, Marco	FrET10.6	103
Carvajal Rodríguez, Miguel Ángel	WeBPoT20.11	18	Cecotti, Hubert	WeBPoT1.10	8
			Celadon, Nicolò	FrBPoT2.19	86
				FrET18.6	105
			Celebi, M. Emre	ThAT19.2	38
				FrGT6.2	122

Celenk, Mehmet	FrBPoT6.6	90	Chang, En-ling	SaBPoT7.15	144
Celik, Numan	FrFPoT3.4	110	Chang, H.J.	ThBPoT9.7	46
Celka, Patrick	SaAT17.2	131		SaBPoT8.17	144
	SaAT17.4	131	Chang, HanYu	FrFPoT2.39	110
Celler, Branko George	WeAT9.1	CC	Chang, Hao-Chen	FrFPoT3.10	110
	WeCT8.1	23		FrFPoT3.23	111
	ThFPoT12.23	67	Chang, Ikwan	FrFPoT6.3	116
	FrBPoT1.13	85	Chang, Shih-Yin	ThFPoT12.8	66
	FrBPoT15.8	94	Chang, Stephen KY	ThBPoT23.5	51
	SaDT5.1	145	Chang, Sung Jae Isaac	ThGT18.4	77
Cempini, Marco	ThET8.2	56	Chang, Ting-Hao	SaBPoT2.41	136
Cene, Vinicius H.	WeBPoT1.5	8	Chang, Won-Du	SaBPoT6.15	141
	ThBPoT22.1	51	Chan-IM, Daranee	ThBPoT9.4	45
	FrBPoT19.5	96	Chanthasopeephan, Teeranoot	ThFPoT15.10	69
Censi, Federica	FrDT9.4	99	Chanwimalueang, Theerasak	WeCT20.1	26
	FrET15.4	104	Chao, Yi-Ping	WeAT19.5	7
Ceravolo, Maria Gabriella	FrAT1.1	79	Chaparro-Vargas, Ramiro	WeAT17.3	6
	SaAT15.2	130		ThBPoT2.9	39
Cereatti, Andrea	FrAT1.2	79	Chapman, Dean	SaBPoT2.7	135
Cerioti, Carlo	SaBPoT6.42	143	Chappell, Michael	SaAT7.2	129
Cernat, Roxana Alexandra	FrBPoT1.16	85	Chappell, Paul	SaAT12.4	130
Cerra, Carlo	WeET12.2	30	Charalampopoulos, Georgios	FrBPoT5.2	90
Cerrato, Carolina	FrGT6.4	122	Charbonnier, Sylvie	FrET17.5	105
Cerrolaza, Juan J.	WeAT7.3	3	Chardon, Matthieu	FrFPoT4.44	114
Cerutti, Sergio	WeCT18.1	25	Chari, Tarun	FrGT8.2	122
	WeET9.5	29	Charleston-Villalobos, Sonia	WeET9.6	29
	WeET25.1	32		ThFPoT1.8	60
	ThFPoT13.2	68	Charleux, Fabrice	FrBPoT17.4	95
	ThGT19.1	77	Charvet, Guillaume	WeBPoT14.5	15
	FrAT3.1	79	Chase, J. Geoffrey	WeAT21.3	7
	FrDT9.6	99		WeBPoT13.5	15
Cerveri, Pietro	ThBPoT9.9	46		WeBPoT13.6	15
Cervetto, Federica	FrFPoT4.21	112		ThET16.6	58
Cestari, Idagene	ThBPoT15.2	49		ThFPoT9.6	64
Cestari, Idágene A.	FrFPoT5.42	116		ThFPoT11.6	66
Cestari, Ismar Newton	ThBPoT15.2	49		ThGT10.1	76
	FrFPoT5.42	116		FrBPoT7.2	91
Cetin, Mustafa S.	ThAT18.2	37		FrBPoT11.6	93
	ThGT19.2	77	Château, François	ThFPoT17.19	70
Ceulemans, Berten	FrAT5.2	80	Chatterjee, Jyotirmoy	ThGT16.5	77
Cha, Ho-Seung	SaBPoT6.14	141	Chatterjee, Subhasri	ThBPoT9.12	46
	SaBPoT6.15	141	Chatzipiripiridis, George	SaAT9.4	129
Chae, Eun Young	FrFPoT2.34	109	Chatzis, Dimitris	WeBPoT6.6	11
Chae, Seung-Hoon	FrFPoT2.34	109	Chau, Duen Horng	FrBPoT20.9	96
Chahibi, Youssef	ThET20.1	59	Chau, Tom	SaBPoT1.10	133
Chai, Guohong	ThAT10.4	35	Chaudhury, Santanu	ThBPoT3.2	40
	ThBPoT13.1	47	Chauhan, Manish	ThFPoT16.2	69
Chai, Rifai	WeBPoT1.12	8	Chausse, Frédéric	WeAT6.1	2
	FrBPoT2.5	86	Chavan, Abhi	WeET8.2	29
	FrET17.4	105	Chavarriga, Ricardo	WeBPoT15.16	16
	FrGT11.5	123		WeBPoT15.17	16
Chaigne, Thomas	SaDT6.2	145	Chávez, Javier A. P.	FrGT12.6	124
Chakouch, Mashhour	FrBPoT17.4	95	Chavez, Mario	ThDT4.1	C
Chakrabarty, Krishnendu	FrDT16.1	100		SaAT10.3	130
	FrDT16.2	100	Chavez-Santiago, Raul	ThET20.1	CC
Chakraborty, Angshu	ThFPoT9.2	64		ThGT20.1	CC
Chakravarthy, Nirranjan	WeET8.2	29		ThGT20.2	78
Chalacheva, Patjanaporn	SaAT2.2	127	Chbat, Nicolas W.	WeBPoT13.4	14
Chamanzar, Alireza	WeET3.4	27		ThGT10.1	C
Chamanzar, Maysamreza	WeBPoT7.5	12		ThGT10.4	76
	FrFPoT3.29	111		SaAT2.1	127
Chamberlain, Daniel	ThET2.4	54	Checchia, Giovanni Antonio	SaBPoT6.22	142
Chamtie, Hayat	FrBPoT13.11	94	Cheetham, Barry	FrAT4.6	80
Chan, Cecilia K.W.	ThFPoT7.1	63	Cheikh Latyr, Fall	ThFPoT8.3	64
Chan, Emory	WeBPoT7.5	12	Chen, Badong	ThBPoT3.8	41
Chan, Hui-Ling	FrGT10.2	123	Chen, Baojun	ThFPoT15.1	69
Chan, Leanne LH	FrBPoT3.23	88	Chen, Chaohao	FrAT20.1	84
Chan, Rosa H. M.	WeAT11.2	4	Chen, Che-Yu	FrBPoT24.2	97
	ThAT11.1	36	Chen, Chia-Chun	FrFPoT2.15	108
Chan, Syin	ThBPoT24.2	51	Chen, Chihchen	FrFPoT3.10	110
Chan, Ti Eu	SaAT15.6	131		FrFPoT3.23	111
Chan, Yew Wei Stephen	ThBPoT24.2	51	Chen, Chin-Ling	FrFPoT6.1	116
Chandler, James	WeAT21.5	7	Chen, Chun-Yuan	FrFPoT2.39	110
	SaAT12.5	130	Chen, Da	ThFPoT6.8	63
Chandra, Rohit	ThET20.5	60	Chen, Guowen	ThFPoT3.2	61
Chandran, Vimal	ThBPoT5.5	42		ThFPoT3.6	61
Chandrasekhar, Anand	SaBPoT4.6	138	Chen, Hao	WeAT8.4	3
Chandrika Sreekantan, Anoop	WeBPoT8.6	12		SaAT7.6	129
Chanel, Laure-Anaïs	ThAT15.5	36	Chen, Hong	ThBPoT2.5	39
Chang, Dongjune	WeBPoT9.1	13	Chen, Jian-Hua	SaBPoT4.26	139
Chang, Edward	WeBPoT6.1	11	Chen, Jianlin	FrAT6.1	80

Chen, Jiansheng	FrET17.3	105	Chengkuo, Lee	ThBPoT6.13	44
Chen, Jle	WeET15.3	31	Chenoune, Yasmina	WeBPoT5.4	10
Chen, Li-Fen	FrGT10.2	123	Cheon, Dong Young	FrFPoT2.21	109
Chen, Liu	ThBPoT5.6	42	Cheong Took, Clive	FrET4.5	101
Chen, Long	WeBPoT17.2	17	Cherian, Perumpillichira Joseph	FrAT18.5	83
Chen, longting	ThBPoT2.13	39		SaBPoT1.27	134
Chen, Mark	FrFPoT3.20	111	Chernova, Sonia	FrBPoT21.6	97
	FrFPoT3.21	111	Chernyakova, Tanya	FrFPoT2.33	109
Chen, Mei-Jung	ThET13.5	58	Cherubini, Andrea	ThGT19.3	78
Chen, Michelle	WeET1.1	26	Cherubino, Patrizia	SaAT10.3	130
Chen, Mingwei	SaAT9.2	129	Chesani, Federico	FrDT2.4	98
Chen, Ning-Hung	FrFPoT1.7	107	Chester, Eric Graeme	SaAT12.1	130
	FrFPoT1.11	107	Chételat, Olivier	ThBPoT6.5	44
Chen, Oscar Tzyh-Chiang	FrFPoT6.13	117		ThBPoT6.6	44
Chen, Pin-Chih	FrFPoT6.13	117	Cheung, Ngai-Man	WeCT3.4	21
Chen, Riqing	WeAT18.1	6		FrFPoT1.16	107
Chen, Robert	FrBPoT20.9	96	Cheung, Vincent CK	ThBPoT14.12	49
	FrFPoT5.33	115	Chew, Gabriel	WeBPoT15.11	16
Chen, Rong	WeBPoT5.3	10	Chi, Yanling	WeBPoT5.12	10
Chen, Rung-Ching	FrFPoT6.1	116	Chia Bejarano, Noelia	FrET11.5	103
Chen, Runge	ThGT3.6	74	Chiang, Hui-Ju Katherine	WeBPoT11.1	14
Chen, SH Annabel	ThBPoT24.2	51	Chiang, Pei-ying	FrFPoT2.39	110
Chen, Shixiong	ThBPoT2.4	39	Chian-Ngermthanyakool, Rangsimaporn	ThBPoT9.4	45
Chen, Shu-Feng	WeBPoT2.6	8	Chiappalone, Michela	ThBPoT13.3	47
Chen, Tenn Francis	WeBPoT8.4	12		ThFPoT14.9	68
	ThFPoT9.1	64	Chiappino, Dante	FrGT7.6	122
	FrET5.6	102	Chiaravello, Emma	FrAT4.3	80
Chen, Wanzhen	ThBPoT13.7	48	Chiari, Lorenzo	ThFPoT22.3	72
Chen, Wei	ThFPoT8.5	64		ThFPoT22.4	72
	ThFPoT9.13	65		ThGT4.5	74
	FrAT10.6	82		FrDT2.1	C
	FrBPoT19.1	95		FrDT2.3	98
Chen, Wei-Chen	FrBPoT1.19	85		FrDT2.4	98
Chen, Weixuan	WeET4.3	27		FrET2.1	CC
	FrBPoT3.28	88	Chiarugi, Franco	ThBPoT24.4	52
Chen, Wenxi	WeBPoT2.4	8	Chiavenna, Andrea	FrAT10.2	82
	ThDT2.1	52	Chiba, Akihiro	FrFPoT1.25	107
	ThFPoT8.2	64		FrFPoT1.30	108
	ThGT2.1	73	Chiba, Ryosuke	SaBPoT5.19	140
Chen, Xiangyu	WeBPoT6.2	11		SaBPoT6.21	142
	ThGT7.1	CC	Chieh, Angela	ThDT2.2	52
	ThGT7.6	75	Chien Hang, Ni	FrFPoT6.19	117
Chen, Xiaojun	ThAT7.6	34	Chiew, Yeong Shiong	WeAT21.1	C
Chen, Xin-Zhuang	ThBPoT1.5	38		WeAT21.3	7
Chen, Xiongbiao (Daniel)	SaBPoT7.1	143		WeBPoT13.6	15
	SaBPoT7.2	143		ThFPoT11.6	66
Chen, Xu	FrBPoT21.1	96		ThGT10.1	76
Chen, Yang	ThET9.6	57	Chigira, Hiroshi	FrFPoT1.25	107
Chen, Yi	FrAT6.5	81		FrFPoT1.30	108
Chen, Ying	WeBPoT2.4	8		SaBPoT3.26	137
Chen, Yong-Sheng	FrGT10.2	123	Chikai, Manabu	WeBPoT21.6	18
Chen, Young-Quan	SaBPoT6.43	143		ThFPoT15.4	69
Chen, Yu	ThFPoT13.5	68	Chikhani, Marc	ThGT10.2	76
Chen, Yue	WeAT8.4	3	Chimhundu, Chipso	SaDT11.3	146
Chen, Yung-Chih	WeBPoT5.14	10	Chimienti, Antonio	SaBPoT3.9	137
Chen, Zhaokang	WeBPoT1.2	7	Chin, Sang	SaAT3.5	127
	WeCT3.3	21	Chin, Takaaki	WeBPoT17.4	17
Chen, Zhihao	WeAT18.4	6	Chincarini, Andrea	ThFPoT5.3	62
Chen, Zhiye	WeCT19.3	26	Chintavalakorn, Rochaya	ThBPoT15.1	49
Chen, Zhouye	FrBPoT5.10	90	Chinvarun, Yotin	FrBPoT13.4	93
Chendeb El Rai, Marwa	WeAT7.6	3	Chiou, Jin-Chern	ThBPoT1.5	38
Cheng, Chihwen	FrBPoT20.4	96		FrGT8.6	122
Cheng, Christopher	FrFPoT3.11	110	Chirala, Mohan	WeBPoT23.6	19
Cheng, Chung-Kuan	WeET20.3	32	Chirumamilla, Venkata Chaitanya	WeBPoT4.8	10
Cheng, Irene	ThBPoT5.32	43		ThFPoT5.10	62
Cheng, Jun	WeCT8.3	23		FrBPoT3.29	88
	ThBPoT5.25	43	Chisholm, Andrew	WeET6.1	28
	ThFPoT6.3	63	Chiu, Hung-Wen	FrBPoT10.7	92
	FrFPoT2.32	109	Chiu, Ming-Jang	ThFPoT9.13	65
Cheng, Leo K	WeCT2.2	21	Chizeck, Howard	ThBPoT13.12	48
	WeCT2.3	21	Chlis, Nikolaos-Kosmas	ThFPoT9.11	65
	WeET4.4	27	Chmelik, Jiái	FrBPoT6.4	90
	FrBPoT2.21	86	Cho, Dong Il	ThBPoT16.5	49
	FrBPoT2.22	87	Cho, Dong-Ho	FrBPoT9.2	91
	SaAT16.1	C		FrFPoT6.22	117
	SaAT16.3	131		SaBPoT8.12	144
Cheng, Limei	SaAT2.1	127		SaBPoT8.19	144
Cheng, Shaokoon	ThGT20.3	78	Cho, Hyunchul	ThGT8.3	75
Cheng, Yu-Ting	FrBPoT24.2	97	Cho, Jaegel	SaDT8.3	146
Cheng, Yu-Wei	WeBPoT8.2	12	Cho, Jang Ho	ThFPoT17.1	69
Cheng, Zhuoqi	ThFPoT16.2	69	Cho, Jongman	WeET20.1	32
				ThBPoT8.4	45

Cho, SeongHwan	SaBPoT1.29	134	Cianca, Ernestina	WeET4.2	27
Cho, Taehwan	FrET5.1	101	Cianchetti, Matteo	ThBPoT19.2	50
Cho, Woo Hyeong	FrFPoT9.23	119		ThBPoT19.3	50
Chocron, Armand	FrFPoT2.33	109	Ciancio, Anna Lisa	ThFPoT15.12	69
Choi, Ahyoung	SaDT8.3	146	Ciaramidaro, Angela	WeET17.6	31
Choi, Booyong	FrET5.1	101		ThGT17.2	77
Choi, Eunsuk	FrFPoT3.19	111	Cibis, Tobias	FrBPoT2.16	86
Choi, Hongsoo	ThBPoT16.5	49	Cichocki, Andrzej	ThFPoT9.13	65
Choi, Hyun Do	ThET8.6	57	Cimetta, Elisa	ThBPoT17.4	50
Choi, Jaesoon	SaBPoT2.28	136	Cimolin, Veronica	SaBPoT3.9	137
Choi, Jaewon	ThFPoT18.3	71	Cinca, Joan	FrBPoT11.7	93
	SaBPoT1.1	133	Cincotti, Febo	ThET4.1	CC
	SaBPoT6.30	142		ThET4.3	55
Choi, Jin Kyu	FrFPoT5.26	115		FrBPoT3.17	88
Choi, Jin Woo	SaBPoT8.6	144	Ciofani, Gianni	WeET1.4	26
Choi, Jin-Woo	SaBPoT3.5	137	Cioni, Giovanni	FrGT3.2	120
Choi, Junhyuk	SaBPoT6.39	143	Ciorecan, Silvia Ionela	FrBPoT1.16	85
Choi, Karam	FrFPoT6.3	116	Cippitelli, Enea	ThFPoT22.10	72
Choi, Kup-Sze	FrFPoT8.14	118	Cipriani, Christian	ThAT9.3	35
Choi, Sangho	ThFPoT18.3	71	Cirujeda, Pol	SaAT6.6	129
	SaBPoT1.1	133	Citi, Luca	ThFPoT13.2	68
	SaBPoT6.30	142		SaAT5.1	CC
Choi, Seungjin	WeBPoT15.14	16		SaAT5.6	128
Choi, Soo Beom	FrFPoT1.14	107	Ciulli, Stefano	ThFPoT5.4	62
Choi, Young Wook	FrFPoT2.34	109		FrBPoT6.3	90
Chon, Chi Hang	WeBPoT24.1	19	Ciuti, Gastone	WeBPoT22.9	19
	WeBPoT24.2	19	Claria, Francesc	WeCT18.5	25
	FrFPoT5.32	115	Clark, John W.	SaAT2.1	CC
Chon, Ki	ThET17.1	CC		SaAT2.3	127
	ThET17.5	59	Clark, Jonathan	WeBPoT24.3	19
	ThET17.6	59	Clarke, Malcolm	FrBPoT21.2	96
Chong, Woo-Suk	SaBPoT5.4	139		FrBPoT21.3	96
	SaBPoT5.20	140	Cláudio, Ana Paula	ThFPoT23.3	72
Chou, Chia-Ching	FrBPoT1.19	85	Claus, Piet	WeET6.3	28
Chou, Chun-Nan	WeBPoT6.1	11	Clauss, Johannes F.	FrET8.3	102
Chou, Willy	ThFPoT12.21	67	Clavica, Francesco	FrFPoT1.13	107
Chou, Zane	ThET11.1	57	Cleary, Kevin	ThBPoT20.3	51
Choueib, May	ThDT16.2	54	Clifford, Gari	FrBPoT3.7	87
Choupina, Hugo	WeBPoT21.11	18	Clifford, Leanne	FrET16.3	104
Chouvarda, Ioanna	WeET5.1	CC	Clifton, David	FrBPoT3.7	87
	WeET5.4	28		FrDT7.3	99
	ThAT12.5	36		FrET5.1	CC
	ThFPoT2.8	61		FrET5.5	102
	FrAT4.4	80	Clifton, Lei	FrDT7.3	99
Chow, Robert	ThBPoT12.4	47	Climent, Andreu M.	ThET4.1	55
Chowdhury, Anirban	ThFPoT12.16	67	Cline, Christopher	WeET10.4	29
Chreiteh, Shadi	FrBPoT12.5	93	Cloherly, Shaun L.	FrGT8.1	122
Christensen, Helen	FrET20.2	106	Clout, Raymond	ThBPoT18.2	50
Christinaki, Eirini	ThBPoT24.4	52	Cloutier, Alison	FrET21.1	106
Christodoulakis, Manolis	WeET4.6	27	Cluitmans, Pierre J.M.	WeBPoT3.7	9
Christodoulou, Christodoulos	WeAT15.6	5	Coatrieux, Gouenou	ThBPoT4.10	41
Christophe, Francois	WeCT8.2	23		FrAT6.2	80
Christopoulou, Maria	ThAT16.4	37		FrET7.1	102
	FrFPoT3.12	110	Cobb, J. Perren	FrET17.6	105
Chrysanthopoulos, Panos	WeBPoT6.6	11	Cobelli, Claudio	WeET12.1	30
Chrysostomou, Charalambos	FrGT16.1	CC		ThAT5.1	33
	FrGT16.2	124		ThAT5.1	C
	FrGT16.3	124		ThAT5.2	34
	SaAT21.3	133		ThAT5.5	34
Chrysostomou, Constantinos	FrBPoT5.13	90		ThBPoT9.5	45
Chuang, Chung-Hsiang	WeBPoT6.1	11		FrFPoT9.34	120
Chuang, Ho-Chiao	ThBPoT15.3	49	Cocchi, Elena	SaAT10.5	130
Chuang, Kai Hsiang	ThGT19.6	78	Cochran, Sandy	FrFPoT5.30	115
Chuang, Marian	WeET6.1	28	Cocozza, Sirio	ThBPoT5.24	43
Chui, Chee Kong	ThBPoT23.5	51	Codari, Marina	SaBPoT2.12	135
Chun, Changmook	SaBPoT5.28	140	Coelho Borges, Renata	ThBPoT2.2	39
Chundi, Parvathi	SaAT19.1	132	Coelho de Albuquerque Pereira, Wagner	FrBPoT5.4	90
	SaBPoT2.40	136	Coelho, Edgar Duarte	ThBPoT9.6	45
Chung, Byung Chang	FrBPoT9.2	91	Coelli, Stefania	WeCT4.6	22
	SaBPoT8.19	144	Cogan, Diana	ThFPoT23.2	72
Chung, Douglas	ThFPoT9.9	64	Cogan, Stuart	WeBPoT14.1	15
Chung, Heewon	SaBPoT3.21	137		WeBPoT14.2	15
Chung, Jai Won	FrFPoT1.14	107	Cohen, Andrew	ThFPoT10.9	65
Chung, Sang Hun	SaBPoT6.16	142	Cohen, Bernard Allan	FrDT14.1	100
	SaBPoT6.39	143		FrDT14.1	C
Chung, Scotty	ThGT8.1	75	Cohen, Bruce	WeBPoT7.5	12
Chung, Sun	FrFPoT5.21	115	Cohen, Laurent	ThFPoT6.8	63
Chung, Wan-Young	FrBPoT3.4	87	Cohen, Maurice	WeBPoT25.11	20
Chytas, Achilleas	WeET5.4	28	Cohn, Brian	WeCT1.6	21
Ciampolini, Paolo	ThFPoT21.8	72	Coimbra, Miguel	ThBPoT5.14	42
	FrBPoT3.15	88		ThFPoT2.13	61

Coito, Ana	ThGT17.4	77	Cortes, Jesus M	ThET18.3	59
Colagiorgio, Paolo	ThBPoT25.1	52	Cortese, Mario	ThET8.2	56
Colak, Omer Halil	FrFPoT4.31	113	Cortesi, Livia	ThBPoT14.9	49
Cole, Oana	ThGT10.2	76	Coruzzi, Paolo	WeAT13.2	5
Colic, Sinisa	FrAT5.4	80	Cosandier-Rimélé, Delphine	FrBPoT14.4	94
	FrBPoT13.4	93	Coscia, Marta Gina	ThFPoT8.1	64
Colli Franzone, Piero	WeAT2.2	1	Coscia, Martina	ThBPoT14.1	48
	WeAT2.4	1		FrET3.3	101
Collins, Holly	WeBPoT20.2	17		SaBPoT6.20	142
Colosimo, Alfredo	FrBPoT3.18	88	Cosentino, Angela	SaAT19.2	132
	FrET17.2	105	Cosentino, Carlo	WeBPoT11.2	14
Colpo, Marco	ThFPoT22.4	72		ThGT16.1	76
Comani, Silvia	ThET10.1	57		ThGT19.3	78
Comisso, Nicola	ThBPoT19.5	50	Cosentino, Sarah	ThBPoT6.3	44
Commandeur, Frédéric	ThAT6.5	34		FrET2.6	100
Comon, Pierre	FrET4.1	101	Cosgun, Sema	WeBPoT2.9	8
Compagnucci, Antonella	FrFPoT5.20	115	Cosman, Pamela	WeET6.1	28
Comtois, Philippe	SaBPoT4.30	139	Cosmi, Erich	WeAT7.2	2
Condino, Sara	WeBPoT6.17	11	Costa Filho, Cicero F. F.	FrBPoT5.4	90
Condon, John P	ThGT21.2	78	Costa, Álvaro	FrFPoT4.40	113
Conforti, Diego	FrDT8.2	99	Costa, Antonella	ThGT19.1	77
Conforto, Silvia	WeAT11.3	4	Costa, Carlos	WeBPoT25.3	20
	ThBPoT2.3	39	Costa, Madalena D.	SaAT5.2	128
	ThBPoT14.5	48	Costa, Marly G. F.	FrBPoT5.4	90
	ThET10.1	57	Costa, Matilde	SaBPoT2.38	136
	ThET10.1	CC	Costa, Pedro	ThBPoT13.11	48
	FrBPoT5.3	90	Costa, Taisa Daiana da	ThFPoT12.11	66
	FrET2.5	100	Costa, Ursula	ThAT3.4	33
Congedo, Marco	WeCT17.4	25	Costantini, Irene	FrGT19.3	125
Coni, Alice	ThFPoT22.4	72	Costantini, Isa	SaBPoT2.24	136
Coniglione, Filadelfo	WeBPoT13.2	14	Costantino, MariaLaura	FrBPoT20.5	96
Connolly, Martin J.	WeBPoT20.7	17	Costanza, Adam	SaAT1.4	127
Conover, Susan	FrFPoT6.18	117	Costello, Richard	WeET18.4	32
Conradt, Jorg	ThBPoT12.6	47	Costet, Nathalie	ThAT19.3	38
Consolo, Filippo	WeBPoT21.5	18	Cotin, Stephane	ThBPoT20.1	51
Constandinou, Timothy	WeBPoT19.2	17	Cottaar, Ward	WeAT8.2	3
	ThBPoT13.8	48	Cottone, Carlo	WeAT10.5	4
Constantinides, Anthony G.	WeAT8.1	3	Cotur, Yasin	FrFPoT2.26	109
Constantinos, Dolianitis	ThBPoT5.19	42		SaBPoT5.6	139
Constantinou, Ioannis	WeBPoT25.8	20	Couceiro, Ricardo	FrBPoT1.6	85
Conti, Nicola	WeBPoT6.13	11	Couderc, Jean-Philippe	FrBPoT12.6	93
Conti, Valerio	FrGT19.3	125	Coulombe, Kareen	WeCT16.3	25
Contreras-Vidal, José	ThFPoT13.10	68	Coulon, Olivier	WeAT7.1	2
	FrGT10.5	123	Coutts, Aaron James	FrGT11.5	123
Controzzi, Marco	ThAT9.3	35	Covey, Daniel	ThGT3.3	74
Contu, Sara	ThBPoT18.8	50	Cowan, Brett	WeBPoT5.8	10
	ThBPoT18.9	50	Cowley, Benjamin	FrBPoT8.3	91
	FrBPoT17.3	95	Cox, Benjamin	FrFPoT5.30	115
Conway, Bernard A	WeBPoT1.4	7	Coyle, Damien	SaAT18.1	131
Conway, Joy	ThBPoT4.6	41	Cozic, Michel	FrET7.1	102
Cook, Andrew J.	ThFPoT11.4	65	Cozza, Michael	FrBPoT19.3	96
Cook, Greg	WeCT17.5	25	Craig, Ashley	WeBPoT11.12	8
Cook, Mark	SaDT8.4	146	Cranny, Andy	SaAT12.4	130
Cook, Rebekah	ThFPoT11.4	65	Crawford, E. David	FrET21.6	106
Coombes, Heather	SaDT11.5	146	Crea, Simona	ThET8.2	56
Copeland, Caroline	FrAT19.1	84	Crecchi, Rossella	SaBPoT5.2	139
Coppolino, Luigi	ThBPoT5.12	42	Crescentini, Marco	SaBPoT3.7	137
Corba, Massimiliano	SaAT3.5	127	Crespo, Andrea	ThBPoT2.20	40
Corbett, Simon	ThGT10.1	76		ThFPoT11.8	66
Corbett-Davies, Joseph	WeBPoT13.5	15	Crimi, Alessandro	WeAT7.4	3
Corbier, Christophe	ThFPoT2.11	61		WeBPoT6.21	12
Cordeiro, Filipe	WeBPoT6.23	12	Crinò, Lucio	FrBPoT10.3	92
Cordella, Francesca	FrBPoT16.5	95	Crippa, Federica	WeBPoT10.4	13
Cordelli, Ermanno	FrGT19.3	125	Crisconio, Marino	ThDT6.4	53
Corino, Valentina	WeAT18.6	6	Cristina Suárez-Mejías, Cristina Suárez-Mejías	WeET12.5	
Corless, Martin J.	ThET16.2	58			30
Cornejo-Cruz, Juan Manuel	FrGT5.4	121	Cristina, Maghini	ThBPoT18.7	50
Corona-Strauss, Farah I.	WeCT10.3	23		FrGT3.6	121
	WeET5.5	28	Cristini, Vittorio	WeCT2.1	21
	ThFPoT12.25	67	Cristobal-Huerta, Alexandra	FrET19.6	106
	FrFPoT4.37	113	Cristoforetti, Alessandro	FrBPoT4.5	89
	SaAT18.6	132	Crites, Brian	FrDT16.4	100
Corr, Stuart	WeBPoT4.6	9	Croft, Elizabeth Anne	ThBPoT14.8	49
Corradino, Claudia	ThFPoT1.4	60		FrGT11.2	123
Correia, António Luís	SaAT19.6	132	Crombie, Cameron	SaDT11.8	147
Correia, Higinio	ThBPoT5.23	43	Croonenborghs, Tom	ThFPoT22.1	72
Corrias, Alberto	ThET13.6	58		ThFPoT22.2	72
Corsi, Cristiana	ThBPoT5.34	43	Crotti, Lia	WeAT13.3	5
	FrET6.1	CC	Crouch, Dustin	WeBPoT16.4	16
	FrET6.2	102	Crupi, Riccardo	ThFPoT1.12	60
Corsini, Michela	WeBPoT6.14	11	Crutch, Sebastian	FrBPoT13.5	93

Cruz Salazar, Emeterio	WeET18.3	32	Damian, Angela	SaAT18.6	132
Cruz, Telmo	ThET2.2	54	Damiani, Andrea	WeBPoT6.16	11
Cubides, Mauricio	SaDT14.2	147	Damm, Ellen	FrFPoT3.26	111
Cui, Haochen	WeBPoT2.7	8	Damy, Thibaud	FrFPoT2.24	109
Cui, Lei	ThFPoT12.20	67	Dan, Han-Wei	FrFPoT2.15	108
Culmer, Peter	WeAT21.5	7	Dancause, Numa	WeET15.4	31
	SaAT12.5	130	Dandekar, Kapil	ThFPoT8.4	64
Cummins, Nicholas	FrET20.2	106	D'Andrea, Antonio	SaBPoT6.44	143
Cundiff, Caitlin	WeBPoT6.5	11	D'Andrea, Cosimo	FrBPoT4.1	89
Cunha, João Paulo Silva	WeBPoT21.11	18	Daneault, Jean-Francois	SaAT17.3	131
	ThBPoT13.11	48	Dang, Shilpa	ThBPoT3.2	40
	ThFPoT19.6	71	D'Angelo, Egidio	ThAT11.3	36
	ThFPoT19.7	71	D'Angelo, Maria Laura	ThAT8.1	35
	FrBPoT4.7	89		FrFPoT5.35	116
	SaBPoT4.19	138	Danicic, Aleksandar	ThFPoT11.1	65
	SaBPoT4.28	139	Daniel, Erik	FrAT6.4	81
Cuniberti, Gianaurelio	FrBPoT8.6	91	Daniele, Carla	ThBPoT10.9	46
Cunitz, Bryan	ThAT15.6	37	Danieli, Morena	WeCT9.3	23
Cunnea, Paula	FrGT8.3	122		SaAT17.5	131
Cuppens, Kris	WeBPoT6.15	11	Danilov, Arseny	SaBPoT8.2	144
Cuppone, Anna Vera	WeAT11.6	4	D'Anna, Carmen	ThBPoT14.5	48
Curtis, Christopher	FrDT16.4	100		FrET2.5	100
Curtis, Michael	WeAT15.1	5	D'Antonio, Salvatore	ThBPoT5.12	42
Cusella De Angelis, Maria Gabriella	WeBPoT11.5	14	Dario, Paolo	WeAT16.6	6
Cutri, Elena	WeBPoT10.4	13		ThBPoT6.7	44
	FrBPoT4.17	89		ThBPoT19.5	50
Cuttino, Charles M.	FrBPoT8.2	91		ThFPoT18.6	71
Cuvillon, Loic	ThAT15.5	36		FrBPoT22.5	97
Cvancara, Paul	WeBPoT14.9	15		FrGT3.2	120
Cvetkovic, Dean	WeAT17.3	6	Darvishi, Sam	ThBPoT3.5	41
	WeBPoT3.15	9	Das, Abhijit	WeBPoT21.1	18
	ThBPoT2.9	39		ThBPoT13.5	47
Cvetkovic, Zoran	WeAT15.1	5	Das, Anshuman	FrFPoT6.18	117
Cybulski, Gerard	ThBPoT2.22	40	Das, Anup	ThGT10.1	CC
Cyberknop, Leandro Javier	ThBPoT16.3	49		ThGT10.2	76
	ThET13.3	58	Das, Haimabati	ThBPoT9.10	46
Cysarz, Dirk	WeAT13.1	4	Das, Koel	ThFPoT14.10	68
Czajkowska, Joanna	FrBPoT5.5	90	Das, Mini	WeET13.1	C
Czaplik, Michael	ThFPoT19.5	71	Das, Sarit K.	ThBPoT8.2	45
Czarnecki, Andrew	SaAT3.6	128		ThBPoT8.3	45
Czippelova, Barbora	WeCT18.4	25	Dasen, Stephan	SaAT17.4	131
Czosnyka, Marek	FrFPoT1.26	107	Dasgupta, Prokar	ThFPoT17.4	70
	FrGT18.2	125	Dash, Sanat Kumar	ThBPoT8.2	45
Czuszynski, Krzysztof	WeCT8.5	23	Dass, Sarat	ThBPoT5.33	43
	ThFPoT18.5	71	Dassonville, Yohan	FrBPoT22.1	97

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da Câmara Ribeiro Dantas, Marcel	FrFPoT6.11	116	Dave, Vijay	ThGT16.2	76
da Matta, Mariel Cadena	ThBPoT5.15	42	d'Avella, Andrea	ThDT8.3	53
da Silva, Edvane	ThBPoT5.15	42	D'Avenio, Giuseppe	ThBPoT10.9	46
Daachi, Boubaker	WeCT17.2	25	Davenport, John	SaAT8.2	129
Daar, Zahra	ThAT12.1	36	David, Bradley	FrET7.6	102
Dabiri, Yaghoub	ThBPoT10.7	46	David, Holmes	FrAT6.4	81
Dabrowski, Adam	SaBPoT2.26	136	David, Laurent	ThAT16.5	37
Dacso, Clifford C	FrAT19.1	C	Davidson, Shaun	WeBPoT13.5	15
	FrAT19.5	84		WeBPoT13.6	15
Daemi, Najmeh	ThBPoT20.2	51		FrBPoT11.6	93
Dafna, Eliran	FrBPoT1.17	85	Davies, Brian	ThFPoT16.2	69
	FrGT17.5	125	Davies, Neil H	SaDT11.1	146
Dagliati, Arianna	WeET12.2	30	Dawy, Zaher	ThET16.5	58
	WeET12.4	30	De Angelis, Maria Teresa	SaBPoT3.24	137
Dagnino, Giulio	WeAT1.3	1	de Araujo, Renato Evangelista	FrFPoT2.31	109
	ThFPoT12.22	67		FrFPoT5.34	115
	ThFPoT17.5	70	De Beule, Matthieu	WeET6.3	28
	ThFPoT17.13	70	de Brito Carvalho, Catarina	WeAT6.2	2
Dähne, Sven	ThGT3.5	74	De Bruyne, Guido	FrFPoT5.6	114
Dai, Chengliang	FrBPoT3.19	88	de Carvalho, Andre	ThFPoT23.4	73
Dai, Shuanglu	ThBPoT5.28	43	de Carvalho, Mamede	FrFPoT4.8	112
Dai, Wenxuan	FrBPoT1.15	85	de Carvalho, Paulo	ThAT12.3	36
Daily, John W.	FrET21.6	106		ThBPoT11.4	47
Dajani, Hilmi	FrFPoT5.2	114		ThET19.1	C
Dal Fabbro, Paulo Augusto	ThFPoT23.4	73		ThET19.4	59
Dalazen, Rafael	ThBPoT22.1	51		FrAT4.1	C
D'Alessio, Tommaso	WeAT11.3	4		FrAT4.4	80
Dalgarno, Paul	FrET7.4	102		FrBPoT1.5	84
Dalla Man, Chiara	ThBPoT9.5	45		FrBPoT1.6	85
Dalla Vecchia, Laura	WeET9.3	29		FrBPoT20.2	96
Damaraju, Eswar	ThGT19.2	77			
D'Amato, Anthony	ThBPoT23.4	51			
Damerjian, Vera	FrFPoT2.24	109			

de Castro Neto, José	FrFPoT2.31	109	Dehghani-Sanij, Abbas A.	ThFPoT15.3	69
De Cata, Pasquale	WeET12.2	30		SaBPoT5.34	140
de Chazal, Philip	WeCT13.1	CC	Dehzangi, Omid	WeCT17.1	25
	FrGT17.1	124	Dejima, Haruka	FrFPoT2.35	109
	FrGT17.1	C	DeJong, Stacey	WeET15.5	31
	FrGT17.2	124	Deku, Felix	WeBPoT14.1	15
De Cillis, Francesca	ThBPoT25.4	52		WeBPoT14.2	15
De Cooman, Thomas	FrAT5.2	80	Del Bianco, Fabrizio	WeAT2.2	1
De Crevoisier, Renaud	WeET19.1	32		WeAT2.4	1
	ThAT6.5	34	del Campo, Félix	ThBPoT2.20	40
	ThAT19.3	38		ThFPoT11.8	66
	ThGT6.1	74	Del Prete, Zaccaria	FrFPoT4.41	113
	ThGT6.5	75	Del Rosario, Michael Benjamin	FrDT2.5	98
De Felicio, Claudia Maria	SaBPoT5.3	139	Del Vecchio, Carmen	ThET16.2	58
De Ferrari, Gaetano M.	ThDT7.4	53	Delair, Thierry	ThAT16.5	37
de Francisco, Ruben	WeAT20.3	7	Delao-Arevalo, Luis	FrFPoT9.5	118
De Jager, Kylie	SaDT11.3	146	Delbaere, Kim	FrDT2.5	98
De Jonckheere, Julien	ThFPoT15.5	69	Delenda, Bachir	ThAT16.2	37
	FrFPoT1.21	107	Delgado-Gonzalo, Ricard	WeAT20.1	7
	FrFPoT5.8	114		ThBPoT6.5	44
	SaAT20.3	132		SaAT17.2	131
De Lathauwer, Lieven	FrET4.6	101		SaAT17.4	131
De Lazzari, Claudio	ThFPoT11.2	65		SaAT17.6	131
De Luca, Alice	FrFPoT4.21	112	D'Elia, Nicolò	ThBPoT19.2	50
	SaBPoT6.22	142	Delibasis, Konstantinos	ThBPoT5.4	42
De Marchis, Cristiano	WeAT11.3	4		FrBPoT5.13	90
	ThBPoT2.3	39	Delisle Rodriguez, Denis	ThAT17.2	37
De Maria, Beatrice	WeAT13.3	5	Delivopoulos, Evangelos	ThBPoT16.1	49
	WeCT18.1	25	Deliyiski, Dimitar	WeBPoT6.7	11
	WeET9.3	29	Della Croce, Ugo	ThGT4.1	C
	WeET9.5	29		ThGT4.4	74
	ThET18.1	59		FrAT1.1	C
de Mathelin, Michel	ThAT15.5	36		FrAT1.2	79
De Micheli, Andrea Joseph	FrFPoT3.36	111	Della Ricca, Nicolas	ThBPoT6.5	44
De Momi, Elena	WeAT1.1	CC	Della Torre, Luigi	ThBPoT6.7	44
	ThBPoT13.2	47	Dellacasa, Elena	ThAT16.1	37
	ThFPoT17.3	70	Dellepiane, Silvana	ThET10.5	57
	ThFPoT17.8	70	Dellimore, Kiran	WeAT20.2	7
	ThGT8.4	75		WeBPoT21.9	18
	FrFPoT2.38	110		FrAT2.4	79
De Munari, Ilaria	ThFPoT21.8	72		SaDT11.1	CC
	FrBPoT3.15	88	Dell'Oca, Italo	ThGT6.6	75
De Nunzio, Alessandro Marco	FrET11.6	103	Delopoulos, Anastasios	SaAT4.4	128
	SaBPoT6.25	142	Delorme, Arnaud	FrGT5.5	121
de Oliveira Pimentel, Gonçalo	SaBPoT4.28	139	Delph, Michael	ThET8.4	57
De Pietro, Giuseppe	FrGT20.1	125	Delzescaux, Thierry	ThET7.1	56
De Raeve, Eveline	WeBPoT6.15	11	DeMaria, Andrew	ThBPoT13.10	48
De Rosa, Salvatore	WeBPoT12.7	14	DeMarse, Thomas B.	FrFPoT3.7	110
de Rossi, Alessandra	ThFPoT11.2	65	Demel, Jan	FrBPoT6.4	90
De Santis, Dalia	WeCT1.1	20	Demertzis, Stefanos	ThFPoT11.2	65
	ThBPoT14.6	48	Demetter, Pieter	FrGT19.5	125
	SaBPoT6.41	143	Demir, Ali	FrFPoT2.26	109
De Simio, Francesca	ThBPoT25.4	52	Demircan Tureyen, Ezgi	FrGT7.4	122
de Souza, Joshua	ThBPoT3.11	41	Demosthenous, Andreas	WeBPoT9.5	13
De Toma, Gianluca	WeAT20.5	7		WeCT5.1	22
De Veene, Henri	WeET6.3	28		WeCT5.4	22
De Vico Fallani, Fabrizio	ThDT4.1	52		WeET10.2	29
	SaAT10.3	130		ThBPoT13.4	47
De Villers Sidani, Etienne	FrFPoT4.4	112		ThGT20.6	78
De Vos, Maarten	WeCT4.1	21		FrFPoT4.42	113
	WeCT17.6	25		FrFPoT6.24	117
	FrAT18.5	83	Demosthenous, Panayiota	WeET15.1	30
	SaBPoT1.27	134	Deng, Ruoxian	FrBPoT13.6	93
	SaBPoT6.31	142		FrET3.4	101
De, Arijit	SaAT9.6	130	Deng, Xinyi	SaAT3.1	127
Deadwyler, Sam	ThET11.4	58	Deng, Xinyue	ThET2.4	54
Dean, Douglas	WeAT7.1	2	Deng, Yinhui	WeAT6.6	2
Deán-Ben, C. Luis	WeBPoT5.15	10	Deng, Zhi-De	WeET17.4	31
Deán-Ben, X. Luis	SaDT6.4	146		SaBPoT6.4	141
Dear, Taylor	FrBPoT3.26	88	Deng, Zhiting	FrAT20.6	84
Debard, Glen	FrET2.4	100	Denis, Max	ThET6.5	56
Debeir, Olivier	FrGT19.5	125	Deodoro, Sergio	FrBPoT5.4	90
Debener, Stefan	ThFPoT1.1	60	Deoni, Sean C. L.	WeAT7.1	2
Debreuve, Eric	FrGT6.3	122	Depeursinge, Adrien	SaAT6.6	129
Decaestecker, Christine	FrGT19.5	125	Derakhshani, Reza	FrBPoT16.2	95
Deckersbach, Thilo	SaAT3.3	127	Dereymaeker, Anneleen	WeCT4.1	21
DeCook, Tracy	WeAT12.1	4	Dériaz, Olivier	WeBPoT2.8	8
Dedes, Athanasios	FrBPoT5.2	90	Derks, Rene	WeAT20.2	7
Dedola, Francesca	FrFPoT3.29	111	Derksen, Harm	ThBPoT5.7	42
deFilippi, Christopher	ThAT12.1	36		ThBPoT5.29	43
Degenaar, Patrick	SaAT12.1	130		SaAT6.4	128
Dehaene, David	WeBPoT14.5	15			

Dermitzakis, Aris	WeAT6.3	2	Diciotti, Stefano	ThFPoT5.4	62
Desai, Nasir	WeET7.5	29		FrBPoT6.3	90
	ThBPoT5.18	42	Dickson, Jennifer	ThET16.6	58
	ThBPoT5.37	43		ThFPoT9.6	64
Desaive, Thomas	WeBPoT13.5	15	Dideriksen, Jakob	FrET10.3	103
	WeBPoT13.6	15	Diehl, Rolf R.	FrFPoT1.26	107
	FrBPoT11.6	93	Diehn, Maximilian	SaAT6.6	129
	SaBPoT4.15	138	Diella, Eleonora	ThBPoT18.7	50
Desbordes, Gaelle	FrDT9.6	99		FrGT3.6	121
Descombes, Xavier	FrGT6.3	122	Diemer, Franck	SaAT6.5	129
Deshpande, Gopikrishna	FrBPoT2.10	86	Diercks, Björn-Philipp	SaBPoT2.26	136
Desir, Chesner	WeET20.5	32	Díez Pomares, Jorge	WeBPoT19.4	17
Desmet, An-Sofie	FrFPoT2.14	108		FrFPoT9.1	118
Desoye, Gernot	SaAT16.1	131		FrFPoT9.2	118
Dessi, Alessia	ThBPoT7.10	45	Díez, Sergio	FrBPoT23.3	97
Destephe, Matthieu	SaAT1.2	127	DiGiovanna, Jack	FrET15.2	104
Devarajan, Karthik	ThBPoT14.12	49	Dijk, Van, Ludger	FrET11.1	103
Devillers, Anne	WeET19.1	32	Dimaki, Maria	WeAT16.4	5
Dewald, Julius P. A.	ThBPoT14.7	48	DiMartino, Joseph	WeCT4.4	21
Dey, Goutam	FrBPoT4.2	89	Dimasi, Annalisa	WeAT12.2	4
D'Haene, Maarten	FrFPoT5.6	114	Dimiccoli, Vincenzo	FrFPoT5.38	116
Dhafer, Yasin	ThAT10.1	C	Dimitrakopoulos, Georgios	ThET16.3	58
	ThAT10.6	35	Dimitriadis, Stavros	FrGT4.5	121
Dharssi, Shazia	ThGT19.4	78	Dimitrov, Velin	ThFPoT21.4	72
Dhenain, Marc	ThET7.1	56		FrBPoT21.6	97
D'hooge, Jan	WeAT6.2	2	Dimitrova, Nevenka	FrBPoT10.6	92
Di Camillo, Barbara	WeET12.1	30	Dimopoulos, Nikitas	SaBPoT8.20	145
	ThDT11.1	54	D'Imperio, Mariapaola	ThAT8.1	35
	ThDT11.1	CC	Dimwamwa, Elaida	ThFPoT12.3	66
	FrBPoT10.1	92	Dinapoli, Nicola	WeBPoT6.16	11
Di Cataldo, Santa	SaAT19.3	132	Ding, Jianqi	FrFPoT5.1	114
Di Caterina, Gaetano	WeBPoT1.4	7	Ding, Lei	WeBPoT3.4	9
	ThAT7.5	34		ThFPoT14.7	68
Di Domenico, Simone	WeET4.2	27	Ding, Wenhui	FrBPoT20.4	96
Di Flumeri, Gianluca	WeCT10.5	23	Ding, Xiao-Rong	WeAT18.5	6
	FrBPoT3.18	88		FrBPoT1.15	85
	FrET17.2	105	Ding, Zhongxiang	WeBPoT5.13	10
Di Francesco, Fabio	FrFPoT3.1	110	Dini, Valentina	FrFPoT3.1	110
	FrGT12.5	124	Dinis, Hugo	ThBPoT6.11	44
Di Furia, Lucia	FrDT8.3	99	Diodato, Alessandro	WeBPoT22.9	19
Di Marco, Stefano	ThET3.1	55	Diou, Christos	SaAT4.4	128
	ThET3.2	55	Dipasquale, Ottavia	SaBPoT2.24	136
	FrDT10.2	99	Diraco, Giovanni	FrFPoT8.6	118
Di Martino, Elena	ThBPoT10.7	46		FrFPoT8.12	118
Di Matteo, Francesco Maria	WeBPoT22.1	18	Direito, Bruno	ThET19.4	59
Di Muzio, Nadia	ThGT6.6	75	Dirks, Holly	WeAT7.1	2
Di Nardo, Francesco	ThBPoT2.34	40	Diserens, Gaelle	ThBPoT5.22	43
	ThFPoT22.10	72	DiSpirito, Hailey	SaAT3.6	128
	FrAT1.1	79	Distefano, Alexandra	FrFPoT9.40	120
	FrBPoT2.13	86	Diwadkar, Vaibhav	ThDT5.1	53
	FrBPoT2.14	86	Dixon, Alexander William	FrFPoT3.31	111
	FrBPoT2.15	86	Djellouli, Rabia	ThAT18.6	38
	FrFPoT3.32	111	Djermoune, El Hadi	ThBPoT9.1	45
	FrGT11.6	123	Do, Quyen	ThAT20.2	38
di Pellegrino, Giuseppe	WeBPoT4.2	9	Dobrzynski, Halina	WeAT2.3	1
Di Pietro, Luisa	SaDT9.3	146	Docherty, Paul David	ThFPoT11.6	66
Di Rienzo, Marco	ThDT6.1	C	Doclo, Simon	SaBPoT6.31	142
	ThDT6.2	53	D'Ocón-Alcañiz, Víctor	WeET7.4	28
	ThET1.3	54	Dodds, Christopher William Douglas	ThBPoT12.3	47
	ThET1.4	54	Doege, Corinna	FrAT5.3	80
	FrDT1.1	C	Doerfler, Arnd	WeET7.2	28
	FrDT1.5	98	Doessel, Olaf	ThFPoT10.7	65
	FrET12.1	C		SaBPoT2.19	135
	FrET12.6	104	Doger, Ela Naz	FrFPoT4.31	113
Diab, Ahmad	WeET17.2	31	Dogra, Debi Prosad	WeBPoT5.1	10
	ThBPoT3.4	41	Dogramadzi, Sanja	WeAT1.3	1
	ThFPoT2.10	61		ThFPoT12.22	67
Diab, Mohamad	ThFPoT2.11	61		ThFPoT17.5	70
Diamantis, Konstantinos	FrET7.4	102		ThFPoT17.13	70
Dian, Joshua Adam	FrBPoT13.4	93	Doi, Kouki	WeBPoT17.1	16
Dias Carlson, Rachel	ThFPoT21.2	72		ThFPoT15.4	69
Dias Moreira, Edson	SaBPoT1.8	133		SaBPoT5.5	139
Dias, Celeste	FrBPoT3.8	87		SaBPoT5.13	140
Dias, Rúben	ThET2.3	54	Dokos, Socrates	WeAT2.1	1
Diaz de Leon Derby, Maria	FrFPoT3.28	111		WeAT2.1	C
	SaBPoT7.16	144		WeET2.2	27
Diaz, Idanis	ThBPoT4.5	41		ThAT2.1	33
Diaz, Orlando	FrET19.4	105		ThAT2.1	C
Díaz-Parra, Antonio	WeET7.4	28		ThAT2.2	33
	ThBPoT5.26	43		FrAT8.1	C
Diaz-Rodriguez, Laura	SaBPoT3.16	137		FrAT8.5	81

El Khatib, Alaa	ThAT19.6	38	Eskandar, Emad	SaAT3.1	127
El Warrak, Alexander	ThDT16.3	54		SaAT3.2	127
Elaine, Elaine H.L.	ThFPoT7.1	63		SaAT3.3	127
Elamvazuthi, Irraivan	FrET17.4	105		SaAT3.4	127
El-Assaad, Atial	ThET16.5	58		SaAT3.5	127
Elbarbary, Khairy	SaBPoT1.20	134		SaAT3.6	128
Elboshra, Tamador	ThET5.2	55	Eskofier, Bjoern M	WeBPoT2.2	8
Eldar, Yonina	FrFPoT2.33	109		ThBPoT6.1	44
	FrGT7.2	122		ThGT4.2	74
Eldeib, Ayman M.	ThFPoT3.9	62		ThGT18.6	77
	ThFPoT3.10	62		FrAT5.1	80
Elgendy, Mohamed	WeBPoT2.2	8		FrBPoT2.16	86
Elhage, Oussama	ThFPoT17.4	70		FrBPoT2.26	87
El-Khoury, Sahar	FrBPoT17.3	95		FrET5.2	101
Ellegård, Lars	ThBPoT24.3	52	Eslami, Sohrab	FrBPoT23.5	97
Elliott, Rodney B.	FrBPoT7.2	91	Essa, Ehab	ThAT7.1	34
Ellouzi, Hamdi	FrFPoT9.38	120		ThET7.4	56
Ells, Anna L.	ThFPoT6.6	63	Esselle, Karu	ThGT20.4	78
El-Mou Cary, Chady	WeCT9.5	23	Essers, Johannes Maria Nicolaas	SaBPoT5.1	139
Elsen, Sylvie	FrGT8.5	122	Essert, Caroline	ThBPoT20.1	51
Elsig, Simone	ThBPoT14.2	48	Estepp, Justin Ronald	FrBPoT7.1	91
El-Wakad, Mohamed Tarek	SaAT7.3	129	Estrada, Luis	WeCT13.5	24
Elwali, Ahmed Khalil	FrBPoT1.11	85		FrBPoT19.2	96
Emad, Omar	WeBPoT5.9	10	Etenzi, Ettore	ThAT8.5	35
Emdin, Michele	FrBPoT2.23	87	Eubanks, James	FrAT5.4	80
Emerson, Maxwell	FrFPoT9.4	118	Euliano, Neil	ThGT10.6	76
Emina, Charles	FrFPoT4.3	112	Evangelisti, Attilio	FrGT2.1	120
Emran, Addulla	ThDT2.6	52	Even-Chen, Nir	WeAT3.6	1
Enayati, Moein	FrET12.4	104	Everding, Lukas	ThBPoT12.6	47
Enderle, Markus	FrAT16.1	83	Eviston, Timothy	WeBPoT24.3	19
Endo, Kazuya	FrFPoT8.17	118	Ewen, Joshua	FrBPoT14.1	94
Endo, Miyuki	SaAT5.1	128		FrBPoT14.2	94
Endo, Nobutsuna	ThGT11.5	76	Exarchos, Konstantinos	FrGT16.5	124
	SaBPoT5.39	141	Exarchos, Themis P.	WeBPoT12.5	14
Endo, Tokiko	ThAT19.4	38		FrAT6.6	81
Endo, Yui	ThAT8.4	35	Eyuboglu, B.Murat	WeBPoT4.1	9
	SaBPoT5.21	140	Ezis, Andrea	WeAT7.1	2
Engel, Aaron	ThET6.2	56	Ezquerro Garcia, Santiago	FrFPoT9.1	118
Engel, Elisabeth	WeCT16.4	25		FrFPoT9.2	118
Engel, Jonathan	WeET8.2	29			
Engelman, Donald	FrFPoT3.11	110	F		
Engelsholm, Signe Katrine Dybbro	WeBPoT3.13	9	F. Ali, Hesham	FrFPoT2.27	109
Engh, Johnathan	SaBPoT5.36	141	F. Seddik, Ahmed	FrFPoT2.27	109
Englehart, Kevin	WeCT11.1	24	F. Silva, Carlos	ThAT4.5	33
	WeCT11.1	C	Fabre, Jennifer	FrBPoT18.4	95
	FrET18.5	105	Fabri, Simon G.	SaAT4.2	128
Enrico, Cheli	WeBPoT3.11	9	Facchinello, Yann	WeBPoT10.5	13
Enriquez, Guillermo	SaAT1.2	127		ThET9.4	57
Enshaeifar, Shirin	ThFPoT14.11	69	Facchinetti, Andrea	WeET12.1	30
	FrET4.5	101		ThAT5.1	33
Enwald, Heidi	FrFPoT8.18	118		ThAT5.2	34
Epps, Julien	ThGT4.1	74		FrFPoT9.34	120
	FrET20.2	106	Faes, Luca	WeCT18.1	CC
Epstein, Jonathan	ThBPoT5.17	42		WeCT18.3	25
Eqlimi, Ehsan	ThET5.5	56		ThET4.5	55
	ThFPoT5.12	63		ThET18.1	C
	FrFPoT2.9	108		ThET18.2	59
Ercole, Cesare	FrBPoT22.6	97		ThGT17.1	CC
Erfani, Yousof	ThGT3.2	74		SaAT5.6	128
Erfanian, Abbas	ThFPoT14.5	68	Faetti, Tommaso	ThFPoT1.12	60
Ergeneman, Olgac	SaAT9.4	129	Fages, François	WeBPoT11.1	14
Ergüner, Bekir	FrBPoT9.1	91	Fagg, Andrew	ThFPoT14.7	68
Erickson, Jon	WeCT2.2	21	Faghih, Rose T.	SaAT3.1	127
	WeET4.4	27		SaAT3.1	CC
Ermacorà, Denis	SaBPoT2.38	136		SaAT3.2	127
Ermes, Miikka	FrGT15.4	124	Fahmy, Ahmed S.	WeBPoT5.9	10
Erne, Pascal	SaAT9.4	129	Faisal, A. Aldo	ThBPoT25.5	52
Ernst, Floris	FrET5.3	101	Falhi, Abdessamad	ThBPoT6.5	44
Eroglu, Hasan H.	WeBPoT4.1	9	Faller, Josef	WeBPoT15.1	15
Errington, Rachel	ThET7.4	56		ThAT3.4	33
Erthal, Vanessa	WeBPoT22.10	19	Fallica, Piero Giorgio	SaBPoT2.27	136
Esaki, Shun	SaAT8.3	129	Fallon, James	FrBPoT24.1	97
Escudero Morland, Maximiliano Francisco	SaAT1.1	127	Falou, Omar	ThFPoT2.10	61
Escudero, Javier	WeAT5.1	2	Falsaperla, Rosaria	FrET15.4	104
	WeET17.5	31	Fan, Ching-Hsiang	SaBPoT7.15	144
	ThBPoT2.29	40	Fan, Fan	ThBPoT1.1	38
	ThBPoT2.30	40		FrBPoT6.2	90
	FrGT4.4	121	Fan, Jing	ThET3.3	55
	SaAT5.3	128	Fan, Qing	ThGT19.5	78
			Fan, Shu-Han	FrBPoT1.19	85

Fan, Shuqiong	FrAT17.5	83	Feng, Jianjiang	WeET6.5	28
Fan, Yubo	ThBPoT1.1	38	Feng, Jiling	WeBPoT13.3	14
	FrBPoT6.2	90	Feng, Naizhang	FrBPoT5.9	90
Fan, Zhencheng	ThFPoT3.6	61	Feng, Zengtao	ThFPoT22.9	72
Fan, Zheyi	FrGT6.6	122	Feng, Zhen-Qiu	ThFPoT17.12	70
Fanelli, Andrea	FrFPoT1.1	106		FrAT16.5	83
Fang, Cheng-Chung	ThFPoT19.3	71	Fengou, Maria-Anna	WeBPoT25.9	20
Fang, Chieh-Ning	FrBPoT14.6	94	Ferdous, Raihana	WeCT9.1	23
Fang, Jiaru	ThBPoT7.6	45	Ferguson, Stephen J.	ThBPoT5.22	43
Fang, Peng	ThBPoT12.5	47	Ferla, Giuseppe	SaBPoT2.27	136
Fang, Wai-Chi	FrBPoT1.19	85	Fernandes, José Maria	WeBPoT21.11	18
Fang, Zuxiang	FrAT8.6	81		ThET2.2	54
Fani, Federica	SaAT6.2	128	Fernandes, Sofia Rita	FrFPoT4.8	112
Fanjul-Vélez, Félix	FrAT2.3	79	Fernandez Aleman, Jose Luis	WeBPoT6.12	11
	FrBPoT23.4	97		WeBPoT25.5	20
Faragasso, Angela	SaAT12.6	130	Fernandez, Alberto	FrGT4.4	121
Farajidavar, Aydin	ThAT20.5	38	Fernandez-Avilés, Francisco	ThET4.1	55
Faramondi, Luca	SaAT15.5	131	Fernandez-Chimeno, Mireya	FrAT9.3	82
Faraz, Khuram	WeET6.2	28		FrET20.6	106
Farè, Silvia	WeCT16.1	CC	Fernandez-Llatas, Carlos	WeET12.3	30
	WeCT16.6	25		SaAT20.4	132
Farella, Elisabetta	ThBPoT7.8	45	Fernández-López, Mariano	WeET19.6	32
Fargeas, Auréline	ThAT19.3	38	Fernandez-Luque, Luis	WeET12.5	30
	ThGT6.5	75	Fernández-Marqués, Javier	SaAT19.4	132
Fargier-Voiron, Marie	ThBPoT4.3	41	Fernie, Geoff	ThGT18.4	77
Farina, Dario	WeAT11.5	4		FrFPoT8.1	117
	ThBPoT18.12	50		FrFPoT8.7	118
	ThET20.3	60		FrFPoT8.8	118
	ThFPoT12.2	66		FrFPoT8.9	118
	ThFPoT12.15	67	Ferracuti, Francesco	SaAT15.2	130
	FrET10.3	103	Ferraioli, Giampaolo	ThBPoT5.12	42
	FrET11.6	103		ThBPoT5.30	43
	FrET18.6	105	Ferrante, Simona	WeAT11.3	4
	FrFPoT1.12	107		FrET11.5	103
	FrFPoT4.30	113		FrFPoT4.23	113
	FrFPoT4.38	113	Ferrari, Alessandro	FrGT6.1	121
	FrFPoT4.39	113	Ferrari, Giorgio	ThBPoT7.11	45
	SaBPoT6.25	142	Ferrari, Marco	SaDT4.1	145
Farngren, Johan	FrFPoT1.28	108	Ferrari, Mauro	WeBPoT6.17	11
Faro-Maza, Virginia	WeBPoT20.2	17		ThFPoT24.1	73
Farooq, Muhammad	FrGT9.3	123		ThFPoT24.2	73
Farotto, Dario	ThFPoT22.5	72	Ferrari, Vincenzo	WeBPoT6.17	11
Farrar, Genevieve	WeBPoT5.8	10		ThFPoT24.1	73
Farshchiansadegh, Ali	ThFPoT12.29	67		ThFPoT24.2	73
Faruque, Reza	WeBPoT4.4	9	Ferrarin, Maurizio	FrET2.1	100
Fasano, Antonio	ThBPoT11.2	46	Ferrario, Damien	ThBPoT6.5	44
	SaAT4.1	128	Ferrario, Manuela	ThBPoT2.18	39
	SaAT4.1	CC		FrGT12.1	CC
Fassina, Lorenzo	WeAT2.2	1		SaBPoT1.8	133
	WeAT2.4	1	Ferraris, Claudia	SaBPoT3.9	137
Fateh, Schekeb	ThBPoT7.8	45	Ferreira, Ana	FrBPoT3.18	88
Fatemi, Mostafa	ThET6.5	56	Ferreira, Andre	FrBPoT3.16	88
Fathiazar, Elham	FrBPoT4.12	89	Ferreira, Carlos	ThET19.4	59
Fattah, Nabeel	SaAT12.1	130	Ferreira, Claudia Lucia Pimenta	SaBPoT5.3	139
	SaAT12.1	CC	Ferreira, Hugo	ThFPoT23.3	72
Fautrel, Alain	ThAT6.5	34	Ferreira, Jacqueline	ThAT4.5	33
Favetto, Alain	FrBPoT2.19	86	Ferreira, Manuel	ThBPoT5.14	42
Favieiro, Gabriela Winkler	WeBPoT1.5	8	Ferreira, Manuel Joao	ThBPoT5.2	41
Fazel-Rezai, Reza	FrBPoT1.7	85	Ferrer, Ricard	FrBPoT9.7	92
	FrET7.6	102	Ferrer-Mileo, Víctor	FrAT9.3	82
Fazlali, Hamidreza	SaAT6.4	128		FrET20.6	106
Fedele, Roberto	WeET1.2	26	Ferrigno, Giancarlo	WeAT11.3	4
Fedor, Szymon	WeET4.3	27		ThBPoT13.2	47
	FrBPoT3.28	88		ThDT6.1	53
	FrFPoT1.31	108		ThFPoT17.3	70
Fedotov, Alexander	FrFPoT1.5	106		ThFPoT17.8	70
	SaBPoT1.30	134		ThGT8.1	C
Feher, Michael	ThFPoT4.6	62		ThGT8.4	75
Fehevari, Tamas	SaBPoT6.11	141		FrET11.5	103
Feibel, Benjamin	FrBPoT17.7	95		FrFPoT2.38	110
Feigin, Micha	FrET15.5	104		FrFPoT4.23	113
Feinberg, Adam	ThDT10.1	CC	Ferris, Daniel	FrFPoT4.28	113
	ThDT10.2	54		SaBPoT6.27	142
Feissel, Pierre	ThET6.1	56	Ferrone, Andrea	ThBPoT8.1	45
Feix, Thomas	FrAT12.2	82	Feruglio, Sylvain	ThFPoT4.6	62
	FrAT12.6	83	Fetih, Dusan	WeBPoT10.3	13
Felderhoff, Thomas	FrBPoT16.3	95	Feucht, Martha	FrGT4.3	121
Felisberto, Ivo Miguel Vieira	WeBPoT22.8	19	Feuer, Ronny	ThBPoT2.15	39
Feller, Christian	FrBPoT24.3	98		ThET16.1	58
Feng, Dagan	WeET19.4	32		ThGT16.3	77
	WeET19.5	32		FrAT16.1	83
	ThBPoT5.16	42			

Fey, Nicholas	SaBPoT5.8	139	Forbes, Patrick	FrGT11.2	123
Ficarra, Elisa	SaAT19.3	132	Forcellini, Veronica	WeBPoT4.2	9
Fico, Giuseppe	WeAT8.1	CC	Ford, Carolyn	FrBPoT2.3	86
	WeET12.1	30	Forestier, Nicolas	SaBPoT5.24	140
	WeET12.6	30	Formica, Domenico	FrBPoT16.5	95
	SaDT14.1	147		FrGT3.1	120
Fietze, Ingo	ThGT1.2	73	Formica, Francesca	ThFPoT12.5	66
Fifer, William P.	WeAT13.5	5	Formisano, Rita	FrBPoT3.17	88
Figaro, Sarah	WeBPoT23.5	19	Forner-Cordero, Arturo	FrBPoT18.1	95
Fiini, Nicola	SaBPoT8.16	144	Foroughi, Javad	FrFPoT4.14	112
Filion-Côté, Sandrine	FrBPoT7.4	91	Forseth, Kiefer	FrAT19.5	84
Filippeschi, Alessandro	WeCT6.3	22	Förster, Christian	FrET3.6	101
	ThFPoT22.8	72	Fortier, Paul	FrBPoT9.10	92
Filippeschi, Carlo	WeET1.4	26	Forzani, Erica	FrDT5.4	98
Filippi, Massimo	SaBPoT2.8	135	Foster, Paul J	ThGT7.1	75
	SaBPoT2.9	135	Fotiadis, Dimitrios I.	WeBPoT10.6	13
Fincke, Jonathan	FrAT2.5	79		WeBPoT10.7	13
Finocchietti, Sara	SaAT10.5	130		WeBPoT12.5	14
Finotello, Francesca	ThFPoT2.3	60		WeCT2.4	21
Finucane, Ciaran	WeET9.4	29		WeCT2.5	21
Fiocchi, Serena	WeAT10.2	4		WeET2.1	27
	WeAT10.5	4		WeET2.1	CC
	ThBPoT9.15	46		ThBPoT9.8	46
	ThBPoT13.2	47		FrAT6.1	C
Fiore, Gianfranco	WeAT16.1	5		FrAT6.6	81
	ThAT16.3	37		FrBPoT12.1	93
Fioretti, Sandro	ThBPoT2.34	40		FrBPoT12.2	93
	ThFPoT22.10	72		FrGT16.5	124
	FrAT1.1	79	Fotopoulou, Christina	FrGT8.3	122
	FrBPoT2.13	86	Fotouhi, Ardeshir	ThET5.5	56
	FrBPoT2.14	86	Fouladi, Seyyed Hamed	FrGT5.6	121
	FrBPoT2.15	86	Foulds, Richard	ThFPoT12.4	66
	FrFPoT3.32	111		SaBPoT6.40	143
	FrGT11.6	123	Fox, Susan	SaBPoT6.32	142
	SaAT1.1	CC	Fraboni, Beatrice	ThBPoT7.10	45
Fiorillo, Antonino S.	FrFPoT4.4	112	Fragomeni, Gionata	WeBPoT12.7	14
Fiorini, Samuele	ThFPoT9.8	64	Fraile, Juan Carlos	FrFPoT3.26	111
Fiorino, Claudio	ThGT6.6	75	França, Felipe Maia Galvão	ThFPoT9.14	65
Fischer, Gregory	ThET8.4	57	Francart, Tom	ThGT3.4	74
	ThFPoT17.6	70	Francelino-Tomita, Katia	FrFPoT16.26	117
	FrFPoT5.41	116	Franceschi, Marta	ThFPoT12.2	66
Fischer, Peer	ThFPoT17.18	70	Francescon, Roberto	ThFPoT2.12	61
	SaBPoT5.35	141	Francesconi, Martina	ThFPoT24.1	73
Fischer-Friedrich, Elisabeth	WeET1.3	26	Francey, Jonathan	WeBPoT20.2	17
Fisk, Liam	ThFPoT9.6	64	Franchi Scarselli, Eleonora	ThBPoT7.3	44
Fitch, Natalie	FrBPoT20.9	96	Franchi, Giulia	ThET10.2	57
Fitzgerald, Anthony	ThBPoT2.21	40	Franchin, Cristina	WeAT19.1	6
Fiz Fernandez, José Antonio	FrGT18.4	125	Franke, Stefan	WeCT15.6	25
Fleming, Alan	ThFPoT6.1	63		FrFPoT6.10	116
Fleming, John	ThBPoT4.6	41	Franklin, David W.	WeCT1.2	20
Fleming, Ronan M.T.	FrFPoT2.14	108		FrFPoT4.22	112
Fletcher, Richard Ribon	ThET2.4	54	Franklin, Sae	FrFPoT4.22	112
Fleysher, Lazar	ThFPoT13.1	67	Franz, Thomas	SaDT11.1	146
Flibotte, John J.	FrFPoT5.27	115	Franzetti, Gaia	WeBPoT10.4	13
Fliegert, Ralf	SaBPoT2.26	136	Franzin, Alberto	WeET12.1	30
Flohr, Thomas	WeET13.4	30	Frasconi, Paolo	FrGT19.3	125
Flor, Herta	SaAT10.6	130	Frauenfelder, Giulia	WeBPoT22.2	18
Flores Vega, Christian Humberto	FrBPoT3.25	88		SaAT6.2	128
Flores, Rafael	FrGT6.4	122	Frausto-Solis, Juan	FrET16.6	104
Florido Navío, Jesús	WeBPoT20.11	18	Fraz, Muhammad M	ThGT7.1	75
Flotho, Philipp	FrBPoT4.9	89	Frecon, Jordan	WeET5.6	28
Foan, Louise	SaAT4.3	128		ThAT4.1	33
Foerster, Michael	WeBPoT14.5	15	Freisleben, Bernd	ThAT7.6	34
Foley, James E.	FrFPoT1.28	108	Freitas, Lorena	SaBPoT1.14	133
Folsom, Jon	ThGT21.2	78	Freschi, Cinzia	ThFPoT24.1	73
Fomina, Tatiana	FrET3.6	101	Freund, David	SaBPoT2.2	135
	FrGT10.4	123	Frewin, Christopher	ThFPoT23.4	73
Fonne, Vivianne	SaBPoT4.23	139	Frey, Urs	WeBPoT9.4	13
Fonseca, Pedro	WeAT17.5	6	Frick, Peter	FrGT2.6	120
Fontaine, Jean Francois	FrFPoT5.19	115	Fricke, Kyle	ThDT16.3	54
Fontana, Rossella	ThFPoT18.6	71	Friedman, Jeffrey	FrAT19.5	84
Fontanella, Flavia	ThBPoT14.4	48	Friedman, Paul	ThFPoT10.8	65
Foo, Siang Fook Victor	WeBPoT8.7	12	Frihette-Pereira, Lucas	WeBPoT6.4	11
Foong, Ruyi	SaAT10.1	130	Frigo, Carlo	WeET11.1	C
Foong, Shaohui	WeBPoT9.8	13		WeET11.4	30
Foote, Kelly	FrFPoT4.32	113	Frijia, Francesca	FrBPoT2.23	87
	FrFPoT4.33	113	Frohlich, Flavio	ThET18.5	59
Foran, David J.	ThAT19.1	38	Frølich, Laura	WeET4.5	27
	ThBPoT5.17	42	Frost, Shawn	WeET15.5	31
	FrET16.4	104	Frouin, Frédérique	ThET7.1	56
Forati, Ebrahim	SaBPoT2.3	135	Fu, Fanrui	ThAT2.5	33

Fu, Maojing	WeCT7.2	22	Galiana, Henrietta L.	FrFPoT1.8	107
	FrGT7.1	122	Galiana-Merino, Juan Jose	WeAT9.1	3
Fu, Yu-Min	FrBPoT24.2	97	Galka, Andreas	ThBPoT2.6	39
Fu, Zening	WeCT4.2	21		ThBPoT2.7	39
	ThAT18.3	37		FrAT5.3	80
	ThAT18.5	37		SaBPoT2.33	136
Fu, Zhenrong	WeAT19.5	7	Galway, Leo	ThFPoT21.7	72
Fuerst, David	ThFPoT24.3	73	Gamaldo, Charlene	FrBPoT14.1	94
	ThFPoT24.4	73		FrBPoT14.2	94
Fujie, Masakatsu G.	WeAT1.5	1	Gamba, Humberto	ThAT6.4	34
	ThBPoT18.3	50	Gamba, Simona	FrFPoT4.21	112
	ThFPoT16.1	69		SaBPoT6.22	142
	SaBPoT1.45	135	Gambaccini, Mauro	ThDT6.3	53
Fujie, Toshinori	ThDT10.1	54		SaAT2.4	127
Fujii, Yutaka	WeBPoT12.1	14	Gambi, Ennio	ThFPoT22.10	72
Fujiki, Soichiro	ThGT9.6	76	Gandhi, Rashmin	ThFPoT6.4	63
	FrBPoT18.3	95		FrAT7.1	81
Fujimoto, Hiroshi	WeBPoT17.1	16	Gandy, Stephen	SaAT7.4	129
	SaBPoT5.5	139	Gantner, Karl	ThFPoT21.2	72
	SaBPoT5.13	140	Gao, Jiyang	ThBPoT2.5	39
Fujimoto, Toshiro	SaBPoT6.33	142	Gao, Mingwu	SaBPoT4.6	138
Fujisawa, Takumi	ThBPoT12.2	47	Gao, Xiaomeng	FrGT12.1	123
Fujita, Hiroshi	ThAT19.4	38	Gao, Xin	SaDT9.1	146
	FrFPoT2.6	108		SaDT9.1	CC
Fujita, Koya	FrFPoT8.5	118		SaDT9.2	146
Fujita, Mayu	SaBPoT8.8	144	Gao, Yuan	WeBPoT14.7	15
Fujiwara, Koichi	FrFPoT5.29	115	Gao, Yu-Bao	FrFPoT3.3	110
	SaAT20.5	132	Gao, Zhan-Jie	ThFPoT17.12	70
Fujiwara, Masao	SaBPoT5.29	140		FrAT16.5	83
Fujiwara, Mitsuhiro	ThAT6.2	34	Garasto, Stefania	FrAT19.1	84
Fukami, Tadanori	WeAT3.4	1	Garatachea, Nuria	WeCT4.5	21
Fukuda, Hiroshi	WeBPoT5.5	10	Garavaglia, Lorenzo	FrBPoT13.10	94
Fukuda, Komei	WeCT1.6	21		SaBPoT6.42	143
Fukuoka, Yutaka	SaBPoT8.8	144	Garbarino, Eleonora	FrAT10.4	82
	SaBPoT8.10	144	García Manzanares, María Dolores	FrFPoT9.2	118
Fukushima, Arika	FrBPoT20.6	96	García Salazar, Octavio	SaBPoT6.45	143
Fulchiron, René	ThAT16.5	37	García, Carmen	ThGT1.2	73
Fulham, Michael	ThBPoT5.16	42	García, Francesca	FrAT12.3	82
Fulk, George	FrAT10.3	82	García, J. Jesus	FrBPoT2.2	86
Funamoto, Seiichi	SaBPoT7.17	144	García, Ronald	ThFPoT13.2	68
Funane, Tsukasa	ThET17.4	59	García, Stephanie	FrBPoT18.4	95
Funato, Tetsuro	ThGT9.6	76	García-Aracil, Nicolas	WeBPoT19.4	17
	FrBPoT18.3	95		FrFPoT9.1	118
	SaBPoT5.23	140		FrFPoT9.2	118
Fung, Adrian	ThBPoT12.3	47	García-Carmona, Rodrigo	WeET19.6	32
Fuoco, Roger	FrGT12.5	124	García-Casado, Javier	SaBPoT3.28	137
Furlan, Raffaello	WeET9.3	29	García-Gonzalez, Miguel A.	FrAT9.3	82
	WeET9.5	29		FrET20.6	106
Furukawa, Ryo	SaAT8.1	129	García-Gordillo, Carlos	FrDT2.2	98
Furukawa, Shigeto	FrFPoT1.18	107	García-Mateos, Ginés	WeBPoT6.12	11
Furukawa, Tomofumi	ThGT20.5	78		WeBPoT25.5	20
Furutani, Eiko	SaAT16.2	131	García-Molina, Gary Nelson	FrBPoT1.20	85
Fusco, Alessandra	SaBPoT1.32	134	García-Pardo, Concepcion	ThGT20.2	78
Futami, Shigetoshi	WeCT10.2	23	García-Sánchez, Tomás	FrBPoT11.7	93
	SaBPoT6.11	141	Garda, Patrick	WeAT8.3	3
			Garde, Ainara	FrBPoT3.10	87
				FrGT17.6	125
			Gardenghi, Roberto	FrFPoT5.25	115
			Garfield, David	WeBPoT7.5	12
			Garg, Lalit	FrFPoT9.40	120
			Garg, Saurabh	FrFPoT4.18	112
			Gargioli, Cesare	WeAT16.6	6
			Gargiulo, Gaetano	ThFPoT11.4	65
			Garipcan, Bora	SaBPoT3.35	137
			Garnavi, Rahil	ThBPoT5.8	42
				ThBPoT5.19	42
				FrBPoT11.3	92
			Garofalo, Sara	WeBPoT4.2	9
			Garreau, Mireille	ThAT6.3	34
				FrET19.2	105
			Garrett, David J.	FrFPoT4.14	112
				FrGT8.1	122
			Garris, Paul	ThGT3.3	74
			Garrison, Benton	ThFPoT18.7	71
			Gärtner, Bernd	WeCT1.6	21
			Garudadri, Harinath	ThBPoT14.14	49
				ThET19.1	59
				FrET10.2	103
				FrFPoT4.18	112
			Garzón Rey, Jorge Mario	ThBPoT11.1	46
			Gasparrini, Samuele	ThFPoT22.10	72

G

Gabbouj, Moncef	ThAT17.3	37
Gaber, Amira	ThAT10.5	35
Gaber, Tarek	ThFPoT4.3	62
Gabra, Hani	FrGT8.3	122
Gabriel, Rafael	WeET12.1	30
Gabriela Bezerra da Silva, Gabriela	FrFPoT6.11	116
Gabrielli, Silvia	ThET10.5	57
Gad, Parag	WeBPoT16.2	16
Gadaleta, Matteo	ThFPoT2.12	61
Gadda, Giacomo	ThDT6.3	53
	SaAT2.4	127
Gade, Julie	WeET10.1	29
	ThBPoT14.10	49
Gadepalli, Chaitanya	FrAT4.6	80
Gaeta, Giuliano	ThAT11.4	36
Gagnon-Turcotte, Gabriel	WeET16.1	31
	FrET9.6	103
Gailey, Alycia	FrGT10.5	123
Gaitan-Gonzalez, Mercedes	WeET9.6	29
Gajawelli, Niharika	WeAT7.1	2
Galantucci, Sebastiano	SaBPoT2.9	135
Galea, Mary P.	ThBPoT1.2	38

Gasser, Benjamin W.	ThET8.1	56	Gholinezhadasnefestani, Shima	FrAT18.6	84
Gaßner, Heiko	ThBPoT6.1	44	Ghoroani, Behnaz	FrBPoT3.21	88
Gastouniotti, Aimilia	FrBPoT5.2	90	Ghorai, Santanu	ThGT16.5	77
Gatermann, Heike	FrBPoT2.16	86		FrBPoT9.5	92
Gatos, Ilias	SaBPoT2.1	135	Ghosh, Arindam	WeCT9.3	23
Gatsios, Dimitrios	WeET2.1	27		SaAT17.5	131
Gatta, Roberto	WeBPoT6.16	11	Ghosh, Ram Proshad	WeAT12.6	4
Gavaghan, Kate	ThBPoT5.5	42	Ghosh, Rohan	ThFPoT15.13	69
Gavriliis, Dimitris	WeBPoT2.1	8	Ghosh, Sambuddha	ThBPoT5.21	42
Gavrilovic, Bojan	FrBPoT1.22	85	Ghosh, Shameek	SaAT20.2	132
Gawlitza, Matthias	ThAT7.6	34	Ghosh, Sreejita	ThBPoT21.1	51
Gawthrop, Peter	WeCT1.5	20	Ghumare, Eshwar	WeET17.3	31
Gayraud, Nathalie Therese Helene	ThBPoT11.5	47	Giacometti, Marco	ThBPoT13.2	47
	SaBPoT4.20	138	Giaconia, Costantino	SaBPoT2.27	136
Gazor, Saeed	ThFPoT10.3	65	Giancardo, Luca	FrGT6.4	122
Gazzellini, Simone	ThBPoT14.5	48	Giannakakis, Giorgos	ThBPoT24.4	52
Gazziro, Mario	ThFPoT23.4	73		FrBPoT2.6	86
Gazzoni, Marco	ThBPoT14.4	48	Giannakeas, Nikolaos	ThBPoT5.38	43
Ge, Shuzhi Sam	ThET10.3	57	Giannoni, Alberto	FrBPoT2.23	87
Gee, Alan	FrAT18.4	83	Giannoni, Pische	ThFPoT12.29	67
Gefen, Amit	WeBPoT6.9	11	Giardini, Mario Ettore	FrET20.1	106
Gehlbach, Peter	WeAT1.2	1	Giaretta, Alberto	FrBPoT10.1	92
	WeAT1.4	1	Giarré, Laura	FrFPoT6.16	117
Gehring, Tiago Victor	ThFPoT2.9	61	Giatsidis, Giorgio	ThBPoT14.2	48
Gelbart, Elad	ThBPoT4.9	41	Giessen, Harald	FrBPoT7.6	91
Gemignani, Angelo	WeAT8.6	3	Gigan, Sylvain	SaDT6.2	145
	WeAT17.4	6	Gil González, Julián	ThBPoT5.36	43
	WeBPoT3.11	9		FrBPoT3.31	88
Gemignani, Jessica	WeBPoT3.11	9	Giladi, Moshe	FrBPoT23.1	97
	ThBPoT19.1	50		FrBPoT23.2	97
Geminiani, Alice	ThAT11.3	36	Gilat, Moran	FrBPoT13.11	94
Gemmell, Jr., Kevin	ThFPoT15.6	69	Gilbert, Andrew	ThAT2.3	33
Gençer, Nevzat	WeCT6.5	22	Gilbert, Barry	FrAT6.4	81
Gencoglu, Oguzhan	FrGT15.1	124	Gilbert, James	FrBPoT2.3	86
Genda, Eiichi	FrAT10.5	82	Gilbert, Kathleen	WeBPoT5.8	10
	SaBPoT5.11	140	Ginestroni, Andrea	ThFPoT5.4	62
Geng, Bo	WeET10.1	29	Gini, Giuseppina	WeET11.4	30
Gennert, Michael	FrBPoT21.6	97	Gioia, Virginia	WeBPoT23.4	19
Genolet, Raphael	FrFPoT3.36	111	Giokas, Kostas	FrET20.3	106
Genovese, Elisabetta	FrET15.4	104	Giovacchini, Francesco	ThET8.2	56
Gentili, Claudio	FrBPoT2.24	87	Giovangrandi, Laurent	FrBPoT8.2	91
Gentry, Derek	FrFPoT9.33	120	Giraldo, Beatriz	WeAT13.6	5
Genuini, Igino	ThFPoT11.2	65		FrGT18.4	125
Georga, Eleni I.	ThBPoT9.8	46	Giraldo-Gutierrez, Juan José	ThBPoT5.39	44
George Jr, Alfred	WeAT13.3	5	Girardengo, Giulia	WeAT13.3	5
Georgilas, Ioannis	WeAT1.3	1	Girardo, Salvatore	WeET1.3	26
	ThFPoT12.22	67	Giri, Bapun K	ThFPoT14.10	68
	ThFPoT17.5	70	Giugliano, Michele	ThFPoT2.9	61
	ThFPoT17.13	70		FrDT10.5	99
Georgiou, Julius	WeET15.1	30	Giuli, Valentina	FrDT1.5	98
Georgopoulos, Andreas	FrBPoT5.6	90	Giuliani, Corrado	ThBPoT2.34	40
Georgopoulos, Dimitris	WeET5.4	28	Giurazza, Francesco	SaAT6.2	128
Georgoulas, George	WeBPoT2.1	8	Giussani, Matteo	ThFPoT17.16	70
Geramipour, Arezou	ThFPoT14.5	68	Gjerde, Anna	WeAT15.5	5
Gerasimenko, Yury	WeBPoT16.2	16	Gkekas, Christos	WeBPoT25.1	20
Gerbelot, Rémi	WeET20.5	32	Gkiatas, Ioannis	WeET2.1	27
Gerber, Nicolas	ThBPoT5.5	42	Glassenbury, Daniel	ThGT10.1	76
Gergondet, Pierre	WeCT17.3	25	Glazer, Peter	FrFPoT3.11	110
Geris, Liesbet	WeBPoT10.6	13	Glazer, Piotr Jakub	WeET16.6	31
Germany Morrison, Enrique Ignacio	SaBPoT5.27	140	Glielmo, Luigi	ThET16.2	58
	SaBPoT6.36	143	Glos, Martin	ThGT1.2	73
Gerstenmayer, Anita	SaBPoT4.2	138	Gloumakov, Yuri	FrAT12.6	83
Gesi, Marco	WeBPoT6.17	11	Glivic, Zoran	ThFPoT11.1	65
Geva, Ofer	ThBPoT4.9	41	Gnep, Khemara	ThAT6.5	34
Ghaderi, Viviane	ThBPoT12.6	47	Gnutti, Alessandro	WeBPoT6.14	11
Ghafar-Zadeh, Ebrahim	WeET16.1	C	Go, Susannah	SaAT19.1	132
	WeET16.4	31		SaBPoT2.40	136
	ThET16.4	58	Goda, Tatsuro	ThBPoT7.5	44
	FrET9.2	103	Godfrey, Sasha Blue	FrBPoT16.1	95
Ghaffari, Siavash	WeBPoT12.2	14	Godinez Tello, Richard Junior Manuel	FrBPoT3.16	88
Ghane-Motlagh, Bahareh	ThDT16.2	54	Godinez, Rafael	WeAT2.5	1
Ghasempour, Mohsen	FrAT4.6	80	Goedemé, Toon	ThFPoT22.1	72
Ghassemi, Mohammad	WeBPoT2.5	8		FrET2.4	100
Ghavami, Mohammad	ThFPoT14.11	69	Goetz, Stefan	WeAT10.3	4
Ghedi, Andrea	FrBPoT22.6	97		SaBPoT6.4	141
Ghetti, Giacomo Giuseppe	FrAT1.1	79	Goffredo, Michela	FrET2.5	100
	FrBPoT2.13	86	Goffredo, Rosa	WeBPoT24.4	20
Gheysens, Tom	ThBPoT19.1	50		ThBPoT8.1	45
Ghigo, Arthur	SaBPoT4.17	138	Goh, Eyleen L.	WeAT16.2	5
Ghimenti, Silvia	FrGT12.5	124	Goh, James Cho Hong	ThET13.6	58
GholamHosseini, Hamid	WeBPoT20.6	17	Goh, Wang Ling	WeBPoT14.7	15
	WeBPoT20.7	17			

Gokalp, Hulya	FrBPoT21.2	96	Graimann, Bernhard	SaBPoT6.25	142
Goksel, Orcun	WeBPoT10.8	13	Grala, Bartlomiej	FrBPoT4.4	89
	FrBPoT5.11	90	Grämiger, Michelle	FrFPoT1.13	107
Golabchi, Fatemeh Noushin	SaAT17.3	131	Granados Trejo, María del Pilar	FrGT5.4	121
Golatowski, Frank	WeCT15.3	24	Grangeat, Pierre	SaAT4.3	128
Golbaz, Marzieh	WeAT7.5	3	Granger, Geraud	FrET17.2	105
Goldberg, David	SaAT3.5	127	Grant, Gerald T.	ThFPoT17.15	70
Goldberger, Ary L.	SaAT5.2	128	Grant, Marshall	ThBPoT9.5	45
Goldenberg, Andrew A.	ThFPoT17.9	70	Grant, Patricia	WeAT9.3	3
Goldenberg, Sharon	FrGT15.5	124	Grassi, Angela	FrGT3.4	121
Goldfarb, Michael	WeET11.3	30	Grassini, Giuseppe	FrFPoT1.6	106
	ThAT9.2	35	Graupe, Daniel	ThAT17.5	37
	ThET8.1	56	Gravano, Silvio	ThDT6.1	53
	ThFPoT12.31	67	Gray, Aaron	FrET7.2	102
	ThGT9.3	76	Gray, Sara	FrBPoT3.26	88
	ThGT9.5	76	Grayden, David B.	FrGT8.1	122
Goldman, Julian	FrFPoT9.25	119	Grazi, Lorenzo	ThET8.2	56
Goldrick, Matthew	ThGT11.1	76	Graziani, Ilenia	FrET17.2	105
Golemati, Spyretta	WeBPoT25.1	20	Greco, Alberto	WeAT13.4	5
	FrBPoT5.2	90		WeET20.6	32
	FrFPoT9.20	119		ThFPoT14.2	68
Golfier, Stefan	WeET1.3	26		FrAT12.4	82
Golkar, Mahsa	FrBPoT17.6	95		FrBPoT2.25	87
Gollee, Henrik	WeCT1.5	20	Green, Alexander L.	ThET3.6	55
	FrFPoT5.15	114	Green, Rylie A.	ThAT16.6	37
Golnabi, Amir H.	SaBPoT2.25	136	Greenaway, Alan	FrET7.4	102
Goma, Gemma	FrBPoT9.7	92	Greener, Jesse	WeET16.2	31
Gómez Gálvez, Pedro Javier	WeET12.5	30	Greenspan, Hayit K.	WeBPoT6.9	11
Gomez González, Isabel Maria	FrBPoT15.11	95		ThBPoT4.9	41
Gomez, Alberto	FrAT12.3	82	Greenwald, Elliot	WeET15.6	31
Gómez, Marisol	FrET18.4	105	Gregory, Adriana	ThET6.5	56
Gonçalves, Lino	FrBPoT1.5	84	Gribonval, Rémi	FrET4.4	101
Goncalves, Luís	ThBPoT5.2	41	Grieten, Lars	WeAT20.3	7
Gonçalves, Luís	FrFPoT2.16	108		ThFPoT22.5	72
Gong, Bo	ThGT10.3	76	Griffin, Jay	ThFPoT5.1	62
Gong, He	ThBPoT1.1	38	Griffin, Joesph Gregory	FrET7.2	102
Gong, Qian	ThBPoT5.6	42	Griffith, James F.	ThET9.6	57
Gonuguntla, Venkateswarlu	ThBPoT3.9	41	Grigioni, Mauro	ThBPoT10.9	46
González Angarita, Manuel José	SaDT14.2	147	Grigoriadis, Dimitris	FrBPoT2.6	86
Gonzalez Osorio, Fabio Augusto	WeBPoT6.22	12	Grigorovsky, Vasily	ThFPoT13.8	68
González, César A.	SaBPoT3.29	137	Grimmer, Martin	FrAT1.5	79
Gonzalez, Jose Saul	FrBPoT1.8	85	Grisan, Enrico	WeAT7.1	C
Gonzalez-Camarena, Ramon	WeET9.6	29		WeAT7.2	2
	ThFPoT1.8	60		WeAT7.3	3
	WeET9.6	29		WeET6.1	C
Gonzalez-Hermosillo, Jesus Antonio	FrFPoT3.26	111		ThFPoT2.12	61
González-Sánchez, Carlos	ThBPoT12.1	47		FrAT17.3	83
Goo, Yong Sook	FrET4.3	101		FrBPoT4.3	89
Goovaerts, Griet	FrBPoT1.13	85		SaAT19.5	132
Goozee, Kathryn	FrFPoT9.15	119	Grivas, Konstantinos	WeBPoT10.6	13
Gopal, Govind	WeCT8.3	23		WeCT2.4	21
Gopalakrishnan, Kavitha	ThFPoT17.15	70	Groh, Benjamin	FrBPoT2.16	86
Gordon, Chad R.	WeBPoT20.5	17	Grönemeyer, D.	ThFPoT10.2	65
Gorela, Marino	FrBPoT2.4	86	Groop, Leif	WeET12.1	30
Goren, Sezer	FrGT8.3	122	Grose, Derek	ThAT7.5	34
Gorgy, Tommy	SaAT10.5	130	Gross, Christoph	SaDT7.3	146
Gori, Monica	FrGT5.1	121	Grossenbacher, Olivier	ThBPoT6.5	44
Górski, Paweł	WeCT2.4	21		SaAT17.2	131
Gortsas, Theodoros	WeCT2.5	21	Grosse-Wentrup, Moritz	WeBPoT15.8	16
	WeET16.1	31		FrET3.6	101
Gosselin, Benoit	WeET16.1	CC		FrGT10.4	123
	ThFPoT8.3	64	Grossman, Robert	WeBPoT4.5	9
	FrBPoT9.10	92		FrET19.4	105
	FrET9.1	C	Grover, William	FrDT16.1	CC
	FrET9.6	103		FrDT16.5	100
Gosselin, Clément	ThFPoT8.3	64	Groza, Voicu	FrFPoT5.2	114
Gothwal, Vijaya	ThFPoT21.2	72	Grucka, Alban	ThFPoT5.3	62
Goto, Mao	FrBPoT2.9	86	Gruev, Viktor	ThDT16.5	54
Goubran, Rafik A.	FrGT6.5	122	Gu, Dong-Yun	ThGT9.4	76
Goujon, Laurent	SaBPoT5.24	140	Gu, Gwang Min	WeBPoT9.1	13
Gourdeau, Pascale	ThFPoT9.4	64	Gualerzi, Massimo	WeAT13.2	5
Gouveia, Elvio Rubio	WeAT18.3	6	Guan, Cuntai	WeBPoT15.11	16
Govaert, Paul	SaBPoT1.27	134		ThAT17.6	37
Goverdovsky, Valentin	WeCT20.1	26		ThGT3.1	73
Goyer, Cedric	WeET20.5	32		ThGT19.6	78
Gozal, David	ThBPoT2.20	40		FrET6.1	102
	ThFPoT11.8	66		SaAT10.1	130
	WeBPoT2.2	8		SaAT15.6	131
Gradl, Stefan	FrFPoT8.14	118	Guan, Yun	ThFPoT13.7	68
Graf, Ethan	FrBPoT4.5	89	Guarda, Álvaro	ThGT5.4	74
Graffigna, Angelo	ThBPoT2.14	39	Guarin, Diego Luis	FrBPoT17.5	95
Graham, Neubig					

Hammond, Talisin	SaBPoT3.6	137	Hashimoto, Shogo	SaAT16.2	131
Hammoudeh, Sarah	FrFPoT9.21	119	Hashimoto, Shuji	SaAT1.2	127
Hampson, Robert	ThET11.4	58	Hashimoto, Yoshihide	SaBPoT7.17	144
Hamrah, Pedram	FrAT7.4	81	Hashizume, Makoto	FrFPoT2.5	108
Hamzé, Noura	ThBPoT20.1	51	Hasmat, Shaheen	WeBPoT24.3	19
Han, Chang-Hee	FrFPoT4.16	112	Hassan, Mahmoud	ThBPoT3.4	41
	SaBPoT6.13	141		ThFPoT2.10	61
	SaBPoT6.14	141		FrAT5.5	80
Han, Chung Min	SaBPoT6.30	142	Hassanzadeh, Hamid	WeAT9.4	3
Han, Gyu-Bum	FrBPoT9.2	91	Hasson, Christopher	ThET10.2	57
	SaBPoT8.12	144	Hata, Nobuhiko	FrFPoT5.41	116
	SaBPoT8.19	144	Hatanaka, Yuji	FrFPoT2.6	108
Han, Hong Ju	FrFPoT5.16	114	Hatcliff, John	WeCT15.1	24
Han, Jae-phil	FrFPoT5.4	114	Hathway, Peta J	FrAT9.5	82
Han, Jiuhui	SaAT9.2	129	Hatsopoulos, Nicholas	WeAT3.3	1
Han, June-Chiew	SaAT9.3	129		ThGT11.2	76
Han, Liangxiu	ThFPoT6.1	63		ThGT11.3	76
Han, Phillip	FrFPoT5.33	115		SaBPoT6.35	143
Han, Ruokang	FrBPoT14.7	94		SaBPoT6.38	143
Han, Sheng	WeCT4.2	21	Hatsukade, Yoshimi	SaBPoT4.10	138
Han, Xiaoning	FrBPoT20.4	96	Hattersley, John G.	ThET2.1	54
Han, Yechao	FrBPoT13.8	93	Haubrich, Christina	FrFPoT1.26	107
Han, Yu	FrAT6.1	80	Hauelsen, Jens	ThBPoT3.3	40
Hanada, Shigeru	SaBPoT4.8	138	Hauer, Roland	ThGT4.2	74
Hanafusa, Akihiko	ThBPoT22.6	51	Haufe, Stefan	FrAT11.2	82
Hanakawa, Takashi	ThFPoT5.7	62		FrGT10.3	123
Hanawa, Dai	FrFPoT6.14	117	Hauser, Kris	FrAT10.1	82
	FrFPoT6.20	117	Havelock, Tom	ThBPoT4.6	41
Handojoseno, Aluysius Maria Ardi	FrBPoT2.5	86	Hawe, Rachel	ThBPoT14.7	48
	FrBPoT13.11	94	Hawkes, David J	FrAT19.2	84
	FrET17.4	105	Hayano, Junichiro	WeET5.1	28
Hani, Saleh	FrFPoT9.21	119	Hayashi, Hideaki	FrAT5.6	80
Hanif, Umaer	FrBPoT1.23	85	Hayashi, Kazue	FrFPoT8.4	117
Hann, Alexander	ThAT7.6	34	Hayashi, Yuichiro	SaBPoT5.40	141
Hannemann, Ronny	WeCT10.3	23	Hayashida, Yuki	WeCT10.2	23
	WeET5.5	28		ThET11.3	58
	SaAT18.6	132		SaBPoT6.11	141
Hannula, Markus	FrAT6.3	80	Hayashinuma, Katsutoshi	WeBPoT6.20	12
Hanrahan, Sara	FrAT3.2	79	Hayat, Shabina	ThGT7.1	75
Hans, Wilhelm Pau	SaBPoT8.14	144	Hayn, Dieter	FrBPoT21.4	97
Hansen, Ingeborg Helbeck	WeAT15.5	5	Hayward, Martin	FrAT8.2	81
Hanson, Ben Mark	WeAT4.1	2		FrAT8.3	81
Hanumara, Nevan	ThFPoT21.2	72	He, Bin	WeBPoT4.7	9
Hao, Hongwei	WeAT8.4	3		WeET10.4	29
Hao, Jian-Long	ThFPoT17.12	70	He, Cheng-Kun	FrFPoT3.10	110
	FrAT16.5	83	He, David Da	FrET1.4	100
Haque, Mainul	ThGT10.2	76	He, Feng	WeBPoT17.2	17
Hara, Shinsuke	WeET8.1	29		ThGT3.6	74
	ThET17.2	58	He, Jianghong	ThET3.6	55
Hara, Takeshi	ThAT19.4	38	He, Jiayuan	WeBPoT16.7	16
Haraguchi, Yuji	ThBPoT16.4	49	He, Junyun	FrET3.4	101
Harant, Olivier	SaAT4.3	128	He, Qiong	WeCT6.4	22
Harari, Alexandre	FrFPoT3.36	111	He, Xingchi	WeAT1.4	1
Harb, Kawssar	FrGT6.3	122		FrBPoT23.5	97
Hardiman, Orla	SaBPoT2.13	135	He, XueJian	FrFPoT8.14	118
Hardman, Jonathan G.	ThGT10.2	76	He, Yongtian	ThFPoT13.10	68
Hargrove, Caroline	WeCT9.4	23	Healey, Colleen	SaDT11.8	147
Hargrove, Levi	WeBPoT16.1	16	Hebb, Adam O.	FrAT3.2	79
	WeCT11.4	24	Hecht, Bruce	SaDT1.1	CC
	WeCT11.6	24	Hecking, Manfred	ThAT5.4	34
	SaBPoT5.25	140	Hedin, Daniel	FrAT8.1	81
Haritopoulos, Michel	FrAT18.1	83	Hedley, John	SaBPoT3.27	137
Haritou, Maria	FrFPoT6.25	117	Heenan, Megan	FrFPoT4.24	113
	SaAT20.1	132	Heffter, Tamas	FrFPoT5.41	116
Harper, Roy	WeBPoT20.2	17	Hegde, Bharath	FrFPoT2.11	108
Harrington, Michael	FrET3.2	101	Hegde, Nagaraj	FrAT10.3	82
Harris, Hobart	WeBPoT21.2	18	Hegde, Sanjeet	WeBPoT5.8	10
Harrison, Michael	ThGT2.4	73	Heger, Dominic	ThBPoT2.31	40
Hart, George	WeAT2.3	1	Heimlich, Michael	ThGT20.3	78
Hartmann, Cornelia	FrET11.6	103	Hein, Andreas	WeCT15.2	24
	SaBPoT6.25	142	Heinisch, Paul Philipp	ThBPoT10.6	46
Hartwig, Valentina	FrBPoT2.23	87	Heiser, Sarah	WeAT12.2	4
Haruta, Makito	FrFPoT2.35	109	Helander, Elina	WeCT9.2	23
	FrFPoT2.36	109		ThAT4.2	33
Haruta, Yasuhiro	FrET7.5	102		ThDT2.5	52
Harvey, Jay	ThFPoT23.2	72	Helbostad, Jorunn L	ThGT4.5	74
Hase, Kazunori	SaBPoT5.11	140	Heldberg, Beeke E	FrAT5.1	80
	SaBPoT5.40	141	Helderman, Alex	FrFPoT9.36	120
Hase, Takumi	SaBPoT3.8	137	Heldeweg, Micah	FrFPoT5.17	114
Hasegawa, Junja	FrFPoT9.32	120			
Hashim, Shahrul Amry	FrAT8.5	81			

Heldt, Thomas	WeBPoT13.1	14	Hill, Tracy	ThDT16.3	54
	WeBPoT13.2	14	Himmelreich, Uwe	FrET4.6	101
	WeCT13.1	24	Hincapie, Juan Gabriel	ThDT7.3	53
	WeCT13.4	24	Hindmarsh, Diane	ThFPoT11.4	65
	FrET1.4	100	Hinrikus, Hiie	ThFPoT2.4	61
	FrFPoT1.1	106		SaAT18.2	131
Helge, Hellriegel	SaAT18.5	132	Hipwell, John	FrAT19.2	84
Helmolt, Friederike von	FrBPoT3.29	88	Hirai, Shinichi	FrAT1.6	79
Helmut, Breitwieser	FrGT19.4	125		FrAT12.1	82
Hemando, Alberto	ThBPoT11.1	46		SaAT12.6	130
Hemmati, Sadra	FrBPoT18.2	95	Hirakawa, Tsubasa	WeBPoT6.19	12
Hendrickson, Phillip	ThAT2.3	33	Hirano, Hitoshi	WeET3.5	27
	ThET11.5	58	Hirano, Yasushi	ThBPoT5.10	42
	ThFPoT13.9	68		FrFPoT4.12	112
Henelius, Andreas	FrBPoT8.3	91	Hirao, Akinari	SaBPoT5.40	141
Heng, Pheng Ann	SaAT7.6	129	Hirata, Keishiro	FrFPoT5.13	114
Henn, Nadine	FrBPoT4.8	89	Hirata, Masayuki	ThET20.6	60
Hennrich, Johannes	ThBPoT2.31	40	Hirata, Yutaka	SaBPoT6.8	141
Henriques, Jorge	ThAT12.3	36	Hirayama, Jun-ichiro	WeBPoT15.15	16
	ThBPoT11.4	47	Hirooka, Kazumasa	ThFPoT16.1	69
	FrAT4.4	80	Hiroyasu, Tomoyuki	WeBPoT6.20	12
	FrBPoT1.5	84		WeET7.3	28
	FrBPoT1.6	85		FrBPoT2.9	86
	FrBPoT20.2	96	Hirsch, Barry E.	ThFPoT17.8	70
	SaBPoT4.21	138	Hirschmugl, Birgit	SaAT16.1	131
Henriques, Teresa S.	SaAT5.2	128	Hirshfield, Kim M.	FrET16.4	104
Henry, Amanda	FrET19.1	105	Hirth, Sylvain	FrDT2.5	98
Henry, Thomas	FrBPoT13.7	93	Histace, Aymeric	ThFPoT4.6	62
Hérard, Anne-Sophie	ThET7.1	56	Hitoshi, Yoshiki	FrBPoT22.3	97
Herbig, Maik	WeET1.3	26	Hiura, Shinsaku	SaAT8.1	129
Herfat, Safa	ThGT2.6	73	Hmila, Mehdi	FrBPoT4.9	89
Herff, Christian	ThBPoT2.31	40	Ho, Andrew Fu Wah	FrFPoT5.14	114
Herman, Benoît	ThFPoT17.19	70	Ho, K.C.	FrET12.4	104
Hermann, John	SaBPoT6.26	142	Ho, Te-Wei	ThFPoT19.3	71
Hernandez Silveira, Miguel	ThFPoT18.1	70	Ho, Tsung-Yi	FrDT16.2	100
Hernández, Alfredo I	ThAT6.3	34	Hoang, Anh-Tuan	ThBPoT5.13	42
	FrET4.4	101	Hoang, Tuan D.	ThBPoT2.21	40
Hernandez, Alher Mauricio	FrGT5.3	121	Hobara, Hiroaki	SaBPoT6.12	141
Hernández, Álvaro	FrBPoT2.2	86	Hodgson, Chad	ThDT16.3	54
Hernandez, Javier	FrET12.5	104	Hoehn, Mathias	FrBPoT4.8	89
Hernandez-Matas, Carlos	FrAT7.3	81	Hoelter, Philip	WeET7.2	28
Hernandez-Pacheco, Guadalupe	WeET9.6	29	Hoffmann, Klaus-Peter	FrET10.3	103
Hernandez-Pavon, Julio	WeAT10.4	4	Hofmanis, Janis	ThFPoT19.4	71
Hernandez-Tamames, Juan Antonio	FrET19.6	106	Hofmann, Michael	ThAT7.6	34
Hernandez-Torruco, Jose	FrET16.6	104	Hofmann, Ulrich G.	WeBPoT15.5	15
Hernando, Alberto	WeCT4.5	21	Hogan, N. Catherine	FrET21.1	106
Hernando, David	WeCT4.5	21		FrET21.3	106
Herold, Christoph	WeET1.3	26		FrET21.4	106
Herr, Hugh	FrET15.5	104	Hogenboom, Nienke	SaAT18.5	132
Herrainz, Adela	FrBPoT4.15	89	Høgetveit, Jan Olav	FrAT16.4	83
Herrera Buitrago, Moisés Fernando	SaDT14.2	147		FrFPoT3.6	110
Herrera, Hector	ThFPoT9.3	64	Hohmann, Matthias	FrET3.6	101
Herrnstadt, Gil	ThFPoT12.24	67		FrGT10.4	123
Hersek, Sinan	ThBPoT6.2	44	Höhne, Johannes	WeBPoT4.10	10
Herskovits, Edward	WeBPoT5.3	10		SaBPoT1.14	133
Herzog, Hendrik	ThFPoT7.7	64	Holland, Alex	WeAT4.2	2
Hess, Michael	ThFPoT24.3	73	Hollensteiner, Marianne	ThFPoT24.3	73
Hessel, Horst	FrFPoT4.37	113		ThFPoT24.4	73
Heusdens, Richard	FrGT17.3	124	Hollister, Anne M.	FrBPoT17.7	95
Heusser, Karsten	WeET9.5	29	Holloway, Catherine	ThAT10.1	35
	ThDT7.1	53		FrBPoT13.5	93
Heute, Ulrich	ThBPoT2.6	39		FrBPoT17.2	95
	ThBPoT2.7	39	Holmes, Geoffrey Robert	SaBPoT8.18	144
	SaAT18.5	132	Holmes, Martin S.	WeET18.4	32
Hewavitharanage, Sajini Ruwanthika Gintota	WeBPoT6.8	11	Holsbach Costa, Márcio	ThBPoT2.2	39
	ThBPoT5.40	44	Holtrop, Joseph	FrGT7.1	122
Hewitt, Stephen	SaBPoT2.35	136	Homer, Jarrod	FrAT4.6	80
Hexamer, Martin	ThBPoT10.2	46	Homma, Akihiko	SaBPoT4.8	138
Heyde, Brecht	WeET6.3	28	Homma, Akira	FrAT4.1	80
Heymsfield, Steven	SaDT8.3	146	Homma, Noriyasu	ThFPoT3.4	61
Hickey, Michelle	SaAT8.2	129		FrET1.2	100
Hicks, Yulia A.	FrBPoT5.8	90	Homma, Rie	WeBPoT22.5	19
Hidalgo-Muñoz, Antonio R.	WeAT5.2	2	Hong, A Ram	FrFPoT5.23	115
	FrET4.2	101	Hong, Chien-Chong	SaAT12.2	130
Hierlemann, Andreas	WeBPoT9.4	13	Hong, Hyuckki	FrFPoT5.26	115
Higano, Sho	ThFPoT10.1	65	Hong, Inji	FrFPoT5.23	115
	SaBPoT4.10	138	Hong, Jeeyoung	FrFPoT8.11	118
Higashi, Kazuhiko	FrAT20.2	84	Hong, Jisoo	SaBPoT5.28	140
	FrAT20.3	84	Hong, Lai	ThFPoT6.2	63
Higashihara, Takanori	ThAT9.5	35	Hong, Sunjoo	WeCT13.6	24
Hill, Jason Edward	FrFPoT2.7	108	Hong, Sun-Mog	FrFPoT5.7	114

Hong, Xin	ThGT19.6	78	Hu, Ning	ThBPoT7.6	45
Hong, Yan	WeBPoT14.7	15		FrGT9.6	123
Honko, Harri	WeCT8.2	23		FrGT19.2	125
	FrGT15.1	124	Hu, Po-Chi	SaBPoT2.41	136
Honrath, Marc	FrBPoT24.4	98	Hu, Xiaogang	FrBPoT2.12	86
Hoogi, Assaf	FrBPoT6.1	90	Hu, Yong	ThFPoT14.4	68
Hoorfar, Mina	FrFPoT3.28	111	Hu, Zhongxu	SaBPoT3.27	137
	SaBPoT7.16	144	Hu, Zhongze	ThFPoT13.12	68
	ThFPoT2.12	61		FrET17.3	105
Hooshmand, Mohsen	FrAT5.1	80	Huang, Anpeng	WeET8.5	29
Hopfengärtner, Rüdiger	WeAT15.1	CC	Huang, Chien-Chun	FrBPoT24.2	97
Hoppe, Karsten	WeAT15.5	5	Huang, David	FrBPoT12.6	93
	FrBPoT12.5	93	Huang, He	WeBPoT16.3	16
	FrBPoT15.10	95		WeBPoT16.4	16
Hori, Junichi	FrFPoT4.1	112	Huang, Hualin	SaAT15.3	130
	SaBPoT6.6	141	Huang, J. C.	FrFPoT3.20	111
Horie, Ryota	FrFPoT9.24	119		FrFPoT3.21	111
	SaBPoT6.34	142	Huang, Jay	FrFPoT9.28	120
Horise, Yuki	WeAT1.4	1	Huang, Kai-Wei	ThBPoT5.6	42
Horki, Petar	WeET3.1	27	Huang, Ming	ThFPoT8.2	64
Horne, Lachlan	ThBPoT12.8	47	Huang, Shao-Xiong	FrFPoT3.3	110
Horne, Robert	ThFPoT7.4	63	Huang, Wei	FrBPoT11.5	92
Hornegger, Joachim	WeET7.2	28	Huang, Weimin	WeBPoT5.12	10
Hornero, Roberto	ThBPoT2.20	40		WeBPoT5.13	10
	ThFPoT11.8	66		ThBPoT23.5	51
Horovitz, Yonatan	SaAT1.3	127		ThGT19.6	78
Hortal, Enrique	FrFPoT4.40	113		FrET6.1	102
Hosaka, Naoto	WeBPoT24.6	20	Huang, Wenjing	ThBPoT17.2	49
Hosaka, Ryosuke	FrFPoT5.37	116	Huang, Wen-Yen	WeBPoT8.2	12
Hoshida, Tohru	SaBPoT8.11	144	Huang, Xuhui	FrAT17.5	83
Hoshikawa, Suguru	ThFPoT15.2	69	Huang, Yen-Ming	SaBPoT1.7	133
Hoskins, Peter	FrAT20.5	84	Huang, Yingsong	WeAT18.1	6
Hoskinson, Reynald	WeBPoT1.9	8	Huang, Yiyun	WeET16.4	31
Hosokawa, Kazuya	ThDT7.2	53	Huang, Yongzhi	ThET3.6	55
Hosono, Minako	ThFPoT15.4	69	Huang, Yu	FrAT11.2	82
Hotehama, Takuya	FrFPoT4.27	113	Huang, Yuan-Hao	FrET17.1	105
Hotta, Yu	FrBPoT2.17	86	Huang, Yu-Chieh	ThBPoT1.5	38
Hou, Qian	FrFPoT3.3	110		FrGT8.6	122
Hou, Wensheng	WeET11.6	30	Huang, Yu-Jie	FrFPoT3.20	111
Hou, Zeng-Guang	ThBPoT2.33	40	Huang, Zonghao	WeCT11.3	24
	ThFPoT17.12	70	Huber, Sebastian Dominik	FrET10.5	103
	FrAT16.5	83	Hudgins, Bernard	WeCT11.1	24
Houck, Jon M.	ThAT18.2	37	Hudson, Donna L	WeBPoT25.11	20
Housden, Richard James	FrAT12.3	82	Hudson, Samuel E	WeBPoT25.11	20
Houston, Brady	ThBPoT13.12	48	Huertas, Raul	SaBPoT1.33	134
Houston, J Graeme	SaAT7.4	129		SaBPoT1.34	134
Hove-Madsen, Leif	FrBPoT4.15	89	Hugosdottir, Rosa	ThBPoT14.10	49
Hoviattalab, Maryam	ThET9.5	57	Huikuri, Heikki	ThAT5.3	34
Howarth, Peter	ThBPoT4.6	41	Hukkanen, Taina	FrFPoT5.24	115
Hsiao, Min-Chi	FrET10.4	103	Hülsmann, Swen	SaBPoT2.33	136
Hsiao, Pei-Chi	ThFPoT12.21	67	Humeau-Heurtier, Anne	FrGT2.1	CC
Hsiao, Yu-Tsung	ThBPoT18.3	50		FrGT2.3	120
Hsieh, Chi-Hsuan	FrET17.1	105	Hummel, Richard	ThGT18.4	77
Hsieh, Han-Lin	WeCT11.2	24	Hung, Chai-Ting	ThBPoT14.8	49
Hsieh, Hsiang-Hua	SaBPoT1.7	133	Hung, Fei-Hung	FrBPoT10.7	92
Hsieh, James J.	ThFPoT9.10	64	Hung, Y.S.	ThAT18.3	37
Hsieh, Kenny	FrFPoT3.20	111		ThAT18.5	37
	FrFPoT3.21	111	Hunniford, Thomas	WeBPoT20.2	17
	FrFPoT2.39	110	Hunter, Andrew	ThFPoT6.7	63
Hsieh, Tung-Ju	SaBPoT1.7	133		ThGT7.5	75
Hsieh, Yi-Yen	FrFPoT3.10	110		FrFPoT2.2	108
Hsu, Chia-Hsien	FrFPoT3.20	111	Hunter, Ian	FrET21.1	106
	FrFPoT3.21	111		FrET21.1	C
	FrFPoT3.23	111		FrET21.3	106
Hsu, Po-Lin	WeAT12.4	4		FrET21.4	106
Hsu, Sheng-Hsiou	ThFPoT1.3	60	Hunter, Peter	WeBPoT10.1	13
	ThFPoT1.5	60		SaBPoT8.21	145
Hsu, Shun-Hsi	ThBPoT1.5	38	Hunyadi, Borbala	WeCT17.6	25
	FrGT8.6	122		SaBPoT1.15	133
Hsu, Wei-Chun	ThBPoT18.3	50	Huo, Xiaolin	ThET10.4	57
Hsu, Y.C.	WeBPoT10.9	14		ThFPoT12.12	66
Htet, Aung Thu	ThBPoT9.2	45		ThFPoT12.28	67
Htet, Zwe Lin	ThBPoT10.3	46		FrAT16.6	83
	ThBPoT10.4	46	Huo, Yong	FrBPoT20.4	96
Hu, Chao-Kai	FrBPoT24.2	97	Huo, Zhiyu	FrET7.2	102
Hu, Eric	ThBPoT9.16	46	Huotilainen, Minna	FrBPoT1.21	85
Hu, Guangshu	ThFPoT11.3	65	Hur, Taeho	ThFPoT22.6	72
Hu, Jianying	ThAT12.1	36	Hurezeanu, Bogdan	ThFPoT1.10	60
Hu, Kai	FrDT16.1	100		SaBPoT1.31	134
	FrDT16.2	100	Hurtado, Carlo	FrFPoT1.29	108
Hu, Li	ThAT18.5	37	Husar, Peter	ThGT2.2	73
				FrAT16.1	C

Husman, Muhammed Afif	ThFPoT15.3	69	Im, Chang-Hwan	FrFPoT1.9	107
Hussain, Hanaa	FrGT16.6	124		FrFPoT4.15	112
Hussan, Jagir R.	WeBPoT10.1	13		FrFPoT4.16	112
Hutchinson, Marcus	WeAT12.1	4		SaBPoT6.13	141
Hutt, Axel	ThET18.5	59		SaBPoT6.14	141
Huvanandana, Jacqueline	SaBPoT8.3	144		SaBPoT6.15	141
Huynh, Phuong	WeBPoT23.6	19	Imai, Masaharu	WeCT10.2	23
Hwang, Beomsoo	FrFPoT4.17	112		ThGT21.4	78
	SaBPoT5.14	140	Imam, Hasan	ThBPoT2.19	39
Hwang, Dosik	WeBPoT14.6	15	IMAMURA, Yumeko	ThET9.2	57
Hwang, Han-Jeong	SaBPoT6.13	141		FrBPoT16.4	95
Hwang, Jae Youn	FrFPoT2.21	109	Imanara, Shohei	FrFPoT9.24	119
	FrFPoT2.22	109	Imbert, Jean-Paul	FrET17.2	105
	FrFPoT2.23	109	Immanuel, Sarah Anita	WeCT18.6	25
	SaBPoT2.22	136	Immonen, Milla Sinikka	FrDT2.2	98
Hwang, Jeong Min	SaBPoT2.37	136		FrET2.2	100
Hwang, June Kyu	FrAT19.1	84		FrFPoT8.18	118
Hwang, Suhwan	ThDT1.4	52	Imtiaz, Syed Anas	WeAT17.6	6
	ThFPoT18.3	71		FrBPoT2.1	85
	FrET12.2	104	Imura, Masataka	ThBPoT7.7	45
	SaBPoT1.1	133		ThFPoT7.6	63
	SaBPoT6.30	142	Inan, Omer	WeBPoT5.10	10
Hwang, Sunyu	FrFPoT3.27	111		WeCT20.2	26
Hwang, Yoha	SaBPoT6.16	142		ThBPoT6.2	44
Hwang, Yoonsu	FrFPoT5.4	114		FrBPoT8.2	91
Hyder, Rasha	WeBPoT4.4	9		FrET1.1	C
Hyngstrom, Allison	ThFPoT12.15	67		FrET12.1	CC
Hyttinen, Jari	ThBPoT13.15	48		FrFPoT5.11	114
	ThBPoT17.1	49	Ince, Can	FrGT2.5	120
	ThFPoT14.1	68	Ince, Nuri Firat	FrAT3.1	C
	ThGT11.2	76		FrAT3.3	79
	FrAT6.3	80		FrAT3.4	79
				FrBPoT3.20	88
				FrBPoT13.7	93
			Ince, Turker	ThAT17.3	37
			Indahlastari, Aprinda	ThBPoT13.6	47
Iacobelli, Lorenzo	FrET20.4	106	Indic, Premananda	FrAT18.4	83
Iacovacci, Veronica	ThBPoT19.5	50	Indolfi, Ciro	WeBPoT12.7	14
Iacovelli, Selene	ThFPoT12.29	67	Ingenerf, Josef	WeCT15.4	24
Iacoviello, Daniela	FrET5.4	101	Inglese, Matilde	ThFPoT13.1	67
Iafrazi, Jillian	WeBPoT7.5	12	Ingraham, Kimberly	WeCT11.4	24
Iakovidis, Dimitris	WeBPoT6.6	11	Ingvar, Bosaeus	ThBPoT24.3	52
	FrFPoT2.29	109	Innocenti, Bernardo	FrBPoT6.3	90
Iandolo, Riccardo	ThFPoT13.1	67	Ino, Shuichi	WeBPoT21.6	18
Ianez, Eduardo	FrFPoT4.40	113		ThFPoT15.4	69
Iannello, Giulio	FrGT19.3	125		SaBPoT5.9	139
Iarlori, Sabrina	SaAT15.2	130	Inomata, Akihiro	ThBPoT25.2	52
Iatraki, Galatea	ThBPoT24.4	52		ThGT21.1	78
Ibáñez-Molina, Antonio	SaAT5.3	128		FrET2.3	100
Ibarra Chaoul, Andrea	WeBPoT15.8	16	Inoue, Kazutaka	WeET20.2	32
Ibbotson, Michael R	FrFPoT4.14	112	Inoue, Koh	FrFPoT4.29	113
	FrGT8.1	122		SaBPoT6.12	141
Ibrahim, Ahmed	WeBPoT7.4	12	Inoue, Yoshihiro	WeBPoT15.15	16
	ThAT20.5	38	Inoue, Yusuke	ThBPoT7.4	44
Ibrahim, Fatimah	WeET20.1	32		SaBPoT4.24	139
	ThBPoT8.4	45	Intaglietta, Marcos	ThBPoT8.6	45
	ThBPoT8.5	45	Introini, Monica	FrFPoT9.27	119
Ichikawa, Hiroshi	WeBPoT6.20	12	Inzitari, Domenico	ThFPoT5.4	62
Ichimura, Kohei	ThFPoT12.1	66	Ioakimidis, Ioannis	SaAT4.4	128
Ichimura, Shiro	ThBPoT18.5	50	Ioannou, Ioanna	ThFPoT24.5	73
Ichinohe, Susumu	WeET20.2	32	lordachita, Iulian	WeAT1.4	1
Ichinose, Akimichi	ThAT10.2	35		ThBPoT20.3	51
Ide, Junko	FrBPoT13.9	93		FrBPoT23.5	97
Ide, Tomomi	SaBPoT4.13	138		FrFPoT5.41	116
IDIER, Jérôme	FrBPoT9.4	92	Iqbal, Kamran	WeBPoT1.3	7
Ifeachor, Emmanuel	ThFPoT2.6	61	Iramina, Keiji	FrBPoT13.9	93
Igarashi, Yasuhiko	FrBPoT15.2	94		FrFPoT3.30	111
Iglesias-Parro, Sergio	SaAT5.3	128	Irastorza-Landa, Nerea	WeET3.6	27
Ignasiak, Dominika	ThBPoT5.22	43	Iriarte Ruiz, Ana	WeET19.6	32
Ihlen, Espen A F	ThGT4.5	74	Iribe, Gentaro	FrFPoT3.14	110
Ihmig, Frank	FrFPoT3.26	111	Irigoyen, Maria Claudia	SaBPoT1.8	133
Iida, Ikumi	FrFPoT1.20	107	Isa, Tadashi	WeAT3.2	1
Iino, Yuichi	SaBPoT6.29	142	Isaacson, Nathan	ThFPoT8.5	64
Iinuma, Ryo	FrBPoT3.22	88	Ishihara, Kazuyoshi	WeAT3.4	1
Ikarashi, Akira	FrFPoT3.8	110	Ishii, Genki	FrFPoT9.24	119
Ikeda, Kazushi	WeET11.1	30	Ishii, Hiroyuki	FrET2.6	100
	SaBPoT5.26	140	Ishii, Shin	WeBPoT15.15	16
Ilaria, Cinelli	ThET11.6	58	Ishikawa, Akihiro	WeBPoT15.15	16
Iliopoulou, Dimitra	WeBPoT10.7	13	Ishikawa, Fumito	WeAT3.4	1
Illanes-Manriquez, Alfredo	FrAT18.1	83	Ishikawa, Kyoko	FrBPoT19.4	96
Iloniemi, Risto	WeAT10.4	4	Ishikawa, Masahiro	FrBPoT3.22	88

Ishimaru, Sonoko	SaBPoT3.23	137	Jaime, Camacho	SaBPoT1.33	134
Ishiyama, Atsushi	WeCT19.1	26		SaBPoT1.34	134
	ThFPoT10.1	65	Jain, Akshay	FrGT15.3	124
	SaBPoT1.16	133	Jain, Sanjeev Kumar	WeBPoT8.8	13
	SaBPoT4.10	138	Jakubiček, Roman	FrBPoT6.4	90
Iskander, D Robert	FrAT7.5	81	Jalaleddini, Kian	FrBPoT17.6	95
	FrBPoT4.6	89	Jalalinajafabadi, Farideh	FrAT4.6	80
Isobe, Yosuke	ThFPoT16.1	69	Jallon, Pierre	WeET20.5	32
Isomura, Atsushi	WeBPoT6.11	11		FrET17.5	105
Isomura, Takuya	FrFPoT3.17	111	Jalloul, Nahed	ThGT2.5	73
Isomursu, Minna	FrGT15.1	124	Jamaluddin, Nurul Fauzani	FrBPoT3.27	88
Isoyama, Takashi	SaBPoT4.24	139	James, Andrew	SaDT2.3	145
Italiano Monteiro, Clara	ThBPoT11.4	47	James, Christopher	ThET2.1	54
	SaBPoT4.21	138		FrGT20.1	CC
Ito, Akihiro	ThAT19.4	38		FrGT20.4	125
Ito, Akihito	WeBPoT1.6	8	James, Roshan	ThDT9.2	53
Ito, Arisa	WeBPoT22.4	18	Jameson, John	FrAT6.4	81
Ito, Hidekatsu	WeCT5.6	22	Jamieson, Earle	WeAT21.5	7
	SaBPoT1.36	134	Jammeh, Emmanuel	ThFPoT2.6	61
	SaBPoT6.2	141	Jämsä, Timo	FrFPoT8.18	118
Ito, Hikaru	WeBPoT20.1	17	Jan, Jiri	FrBPoT6.4	90
Ito, Kazuhisa	ThBPoT22.6	51	Jan, Raethjen	WeBPoT4.8	10
Ito, Kenichi	FrBPoT2.17	86		SaAT18.5	132
Ito, Koichi	WeBPoT5.5	10	Jané, Raimon	WeCT13.1	C
Ito, Toshiki	SaBPoT1.41	134		WeCT13.5	24
Itu, Lucian	WeBPoT12.3	14		ThET10.6	57
Iturrate, Inaki	WeBPoT15.16	16		FrBPoT19.2	96
	WeBPoT15.17	16		FrGT18.1	C
Ivanovic, Marija	ThFPoT11.1	65		FrGT18.4	125
Ivey, Kayla	FrBPoT18.4	95	Jang, DongPyo	SaBPoT6.15	141
Iwai, Takanobu	FrBPoT8.7	91	Jang, IkJAE	FrFPoT5.16	114
Iwaki, Tomohiro	SaBPoT6.37	143	Jang, Jae Myung	SaBPoT6.18	142
Iwase, Hideaki	FrFPoT5.9	114	Jang, Jihye	FrFPoT5.26	115
Iyengar, Naina	ThBPoT13.10	48	Jang, Yongwon	ThBPoT2.35	40
Iyer, Kartik	ThBPoT3.6	41	Jang-Jaccard, Julian	SaDT5.1	145
Iyer, Parameswaran M.	SaBPoT2.13	135	Jansen, Katrien	WeCT4.1	21
Izadifar, Mohammad	SaBPoT7.1	143		SaBPoT1.13	133
	SaBPoT7.2	143	Jao, Ping-Keng	WeBPoT3.5	9
Izadifar, Zahra	SaBPoT2.7	135	Japaridze, Natia	ThBPoT2.6	39
Izawa, Shun	WeCT19.1	26		ThBPoT2.7	39
Izumi, Shintaro	WeBPoT1.11	8	Japundzic-Zigon, Nina	FrGT18.1	125
	WeBPoT18.3	17	Jaques, Natasha	WeET4.3	27
	ThET20.4	60		FrBPoT3.28	88
	FrBPoT3.1	87		FrBPoT20.1	96
Izzidien, Ahmed	WeCT3.2	21	Jarrahi, Behnaz	WeBPoT5.6	10
	FrFPoT4.2	112	Jasion, Edward	FrET21.6	106
	FrFPoT4.3	112	Jason, Hamann	ThDT7.3	53
Izzo, Antonio	FrBPoT22.5	97	Jatene, Marcelo B.	FrFPoT5.42	116
			Javanbakht, Taraneh	ThDT16.2	54
			Javorka, Kamil	WeCT18.4	25
			Javorka, Michal	WeAT13.1	4
				WeCT18.4	25

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Jaakko, Tornberg	FrFPoT8.18	118	Jaworek-Korjakowska, Joanna	ThAT19.5	38
Jaatinen, Leena	ThBPoT17.1	49	Jayaram, Vinay	FrET3.6	101
Jackson, Andrew	ThDT8.1	CC	Jayaraman, Srinivasan	FrBPoT1.3	84
	ThDT8.2	53	Jayasena, Rajiv	SaDT5.1	145
Jackson, Xavier Jamel	ThBPoT9.2	45	Jayawardhana, Madhuka	FrGT17.1	124
Jacobi, Angela	WeET1.3	26	Jayne, Chiang	FrFPoT5.14	114
Jacobs, Daniel	SaBPoT6.27	142	Jayne, David	SaAT12.5	130
Jacobs, Peter G.	ThGT21.2	78	Jeanne, Mathieu	ThFPoT15.5	69
	SaAT18.3	131		FrFPoT5.8	114
Jacobus, Visser	WeBPoT21.9	18		SaAT20.3	132
	FrAT2.4	79	Jech, Robert	WeCT5.3	22
	SaDT11.8	147		ThBPoT13.16	48
Jacquemet, Vincent	SaBPoT4.30	139	Jeffery, Heather	SaBPoT8.3	144
Jacquir, Sabir	SaBPoT1.12	133	Jelfs, Beth	WeAT11.2	4
Jadhav, Pranit	ThFPoT23.1	72	Jelinek, Herbert Franz	ThAT5.3	34
	FrBPoT19.6	96	Jenjob, Anchalee	ThBPoT9.3	45
Jaeger, Paul	FrFPoT5.40	116	Jennum, Poul	WeBPoT3.14	9
Jaeschke, Timo	ThFPoT19.5	71		FrBPoT1.23	85
Jafari, Roozbeh	WeCT17.1	25	Jensen, Jorgen	FrET7.4	102
	FrBPoT12.3	93	Jensen, Søren	ThET5.3	56
	FrBPoT12.4	93	Jensen, Winnie	WeET10.1	29
	SaAT17.1	131	Jeon, Beom S.	ThET2.5	55
Jaffard, Stephane	WeET5.6	28	Jeon, Doyoung	FrFPoT4.17	112
Jagadish, Jitesh	FrBPoT20.9	96		SaBPoT5.14	140
Jago, James	WeAT6.6	2	Jeon, Hojeong	FrFPoT1.10	107
	WeAT7.3	3		SaBPoT7.8	143
Jagtap, Vinayak	FrBPoT21.6	97	Jeon, Hyo Seon	ThET2.5	55
Jahanzad, Zeinab	WeBPoT5.11	10	Jeon, Noo Li	FrFPoT4.19	112
Jahren, Silje Ekroll	ThBPoT10.6	46		SaBPoT3.11	137
				SaBPoT6.18	142

Kagawa, Masayuki	FrGT12.2	123	Kanoh, Yuji	FrFPoT1.23	107
Kagawa, Yukihiko	FrFPoT2.37	110	Kansanen, Kimmo	FrGT5.6	121
Kahan, Mel	FrBPoT3.26	88	Kant Kumar, Dinesh	ThBPoT3.10	41
Kahya, Yasemin P.	ThGT18.1	CC		FrBPoT2.20	86
	ThGT18.3	77	Kanters, Jorgen	WeAT15.5	5
Kaimakamis, Evangelos	FrAT4.4	80	Kanzler, Christoph Matthias	ThGT18.6	77
Kain, Alexander	FrAT4.2	80		FrBPoT2.26	87
Kainz, Bernhard	ThAT7.6	34	Kao, Jonathan	WeAT3.6	1
Kajimura, Ichige	ThFPoT10.1	65		WeBPoT15.4	15
Kakinuma, Yuki	FrFPoT5.9	114		ThET13.5	58
Kalaji, Iman	ThGT5.6	74	Kao, Tsiar	FrFPoT1.19	107
Kalev, Kaia	ThFPoT2.4	61	Kao, Wei-Pu	WeCT17.3	25
Kalvøy, Håvard	FrFPoT3.6	110	Kapeller, Christoph	FrAT11.6	82
	FrGT9.4	123	Kaplanoglu, Erkan	SaBPoT5.6	139
Kamada, Kyousuke	WeCT17.3	25	Kapucu, Fikret Emre	ThBPoT13.15	48
	FrAT11.6	82		ThFPoT14.1	68
Kamalian, Aida	ThFPoT5.12	63	Kara, Sadik	FrBPoT3.12	87
Kamasak, Mustafa	FrGT7.4	122		FrGT4.1	121
Kamata, Minoru	FrFPoT8.17	118	Karachristos, Christopher	FrAT10.6	82
	FrFPoT8.19	118	Karadas, Mursel	WeCT6.5	22
Kamata, Takatsugu	WeCT10.2	23	Karagergou, Stella	FrBPoT12.2	93
Kamavuako, Ernest Nlandu	WeCT11.1	24	Karai, Deniss	WeCT20.6	26
	ThBPoT14.10	49	Karakitsos, Petros	FrFPoT6.25	117
Kambara, Hiroyuki	SaBPoT5.12	140		SaAT20.1	132
Kameda, Seiji	WeCT10.2	23	Karami, Elahe	FrFPoT2.9	108
Kamei, Yuhei	SaBPoT5.16	140	Karamolegkos, Nikolaos	WeBPoT13.4	14
	SaBPoT8.7	144		ThGT10.4	76
Kamel, Nidal	WeBPoT4.4	9	Karanasiou, Georgia	WeET2.1	27
	WeCT19.6	26	Karasawa, Kyohei	ThBPoT5.10	42
	ThBPoT5.33	43		FrFPoT4.12	112
	ThFPoT1.6	60	Karashima, Akihiro	FrBPoT4.10	89
	FrBPoT2.7	86	Karathanasis, Konstantinos	FrET15.3	104
Kameneva, Tatiana	FrGT11.4	123	Karbing, Dan Stieper	ThGT10.5	76
Kamikawa, Yusuke	FrGT8.1	122	Karel, Joël	ThFPoT10.6	65
Kamishima, Tamotsu	FrBPoT14.9	94	Karfoul, Ahmad	ThFPoT14.12	69
Kamiya, Masaru	ThET9.3	57		FrET4.4	101
Kamm, Roger D.	FrFPoT4.27	113	Karimi, Nader	ThBPoT5.29	43
	WeAT16.1	5		ThFPoT3.3	61
	WeAT16.2	5		SaAT6.4	128
	WeET1.1	26	Karimi, Ramin	FrBPoT9.8	92
Kamoi, Shun	WeBPoT13.5	15	Karimi, Sajjad	FrBPoT3.14	88
	WeBPoT13.6	15	Karjalainen, Pasi, A	FrBPoT3.13	87
	FrBPoT11.6	93	Kark, Lauren	ThAT8.2	35
Kanagasingam, Yogi	WeCT8.6	23		ThBPoT22.5	51
Kanamori, Katsuhiko	SaBPoT5.5	139		ThFPoT8.5	64
Kananen, Janne	SaAT4.5	128		FrDT2.5	98
Kanaya, Shigehiko	ThFPoT8.2	64	Karlen, Walter	FrDT7.4	99
	FrFPoT2.35	109		SaDT11.1	C
	SaBPoT6.33	142	Karlsen, Haakon	WeBPoT21.4	18
	SaBPoT8.11	144	Karlsson, Brynjar	WeET17.2	31
Kanbar, Lara	WeBPoT20.10	18		ThFPoT2.10	61
	ThFPoT9.4	64	Karmakar, Chandan	ThAT5.1	CC
	ThFPoT9.5	64		ThAT5.3	34
Kaneda, Kazufumi	WeBPoT6.19	12		ThBPoT2.19	39
	ThBPoT5.13	42		ThFPoT2.7	61
Kaneko, Kazuo	FrFPoT5.9	114		ThGT5.5	74
Kaneko, Miki	FrFPoT3.30	111		SaAT5.4	128
Kaneko, Takeshi	SaBPoT5.5	139	Karmonik, Christof	WeBPoT4.5	9
Kang, Bong-Soo	WeBPoT7.6	12		FrET19.4	105
Kang, Heesung	SaBPoT2.11	135	Karsmakers, Peter	ThFPoT19.2	71
Kang, Hong-Goo	ThBPoT2.1	39	Karumudi, Rambabu	FrET7.3	102
	FrBPoT3.5	87	Karunanithi, Kaavya	WeBPoT13.8	15
Kang, Hyolim	SaBPoT6.39	143	Karunanithi, Mohanraj	ThFPoT22.7	72
Kang, Ji Yoon	ThBPoT13.9	48		ThGT21.1	CC
Kang, Kyungtae	ThGT5.1	74		ThGT21.6	78
Kang, Shih-Tsung	FrFPoT1.19	107	Karvounis, Evaggelos	ThBPoT5.38	43
	FrFPoT3.25	111	Kasahara, Keisuke	FrAT17.1	83
Kang, Wonjune	ThBPoT2.1	39	Kashino, Makio	FrFPoT1.18	107
Kang, Yu Min	FrBPoT14.1	94	Kasparick, Martin	WeCT15.1	CC
	FrBPoT14.2	94		WeCT15.3	24
Kangas, Maarit	FrFPoT8.18	118	Kasper, Burkhard	FrAT5.1	80
Kannagara, Don Oliver	WeBPoT13.5	15	Kasprowicz, Magdalena	FrFPoT1.26	107
	FrBPoT11.6	93		FrGT18.1	CC
Kanneganti, Aswini	WeBPoT14.1	15		FrGT18.2	125
	WeBPoT14.2	15	Kassem, Abdallah	WeCT9.5	23
Kanno, Yoshihiko	WeBPoT20.1	17	Katayama, Norihiro	FrBPoT4.10	89
Kano, Manabu	FrFPoT5.29	115	Katchky, Adam	FrFPoT8.1	117
	SaAT20.5	132	Kato, Akira	SaBPoT1.45	135
Kanoga, Suguru	WeAT5.6	2	Kato, Amami	SaBPoT1.35	134
Kanoh, Shin'ichiro	WeET20.1	CC	Kato, Ryu	ThFPoT15.2	69
	WeET20.2	32		ThFPoT15.9	69

Kato, Shinya	FrBPoT14.7	94	Keshavarz Hedayati, Babak	SaBPoT8.20	145
Kato, Shohei	FrAT4.1	80	Keshavarz-Motamed, Zahra	WeBPoT12.4	14
Katsageorgiou, Vasiliki-Maria	WeBPoT3.12	9	Keshtgar, Mohammed	FrAT19.2	84
Katsigiannis, Stamos	ThAT7.2	34	Keskinarkaus, Anja	WeBPoT5.2	10
Katudampe Vithanage, Damith Suresh Chathuranga	FrAT1.6	79	Kesmia, Mounira	SaBPoT1.12	133
	FrAT12.1	82	Key, Alexandra	ThET3.3	55
	SaAT12.6	130	Khademhosseini, Ali	SaAT9.2	129
Katuwal, Gajendra	ThFPoT5.2	62	Khalaf, Aya	ThGT5.2	74
Kautz, Thomas	FrAT5.1	80		ThGT5.3	74
Kawabata, Shigenori	FrET7.5	102	Khalaf, Kinda	WeAT16.6	6
Kawabata, Takashi	WeET8.1	29		WeBPoT10.9	14
	ThET17.2	58		ThET9.5	57
Kawachi, Ryosuke	SaBPoT6.10	141		FrFPoT9.13	119
Kawada, Toru	SaBPoT4.4	138		FrFPoT9.14	119
Kawaguchi, Hiroshi	WeBPoT1.11	8	Khaleghi, Ali	ThET20.2	60
	WeBPoT18.3	17	Khalid, Muhammad Usman	ThFPoT5.6	62
	FrBPoT3.1	87		FrAT11.5	82
Kawaguchi, Junki	ThBPoT7.7	45	Khalifa, Ayman	SaAT7.3	129
Kawaguchi, Tomohiro	FrET3.5	101	Khalil, Mohamad	WeET17.2	31
Kawaguchi, Yasuo	WeAT12.3	4		ThBPoT3.4	41
	ThBPoT10.1	46	Khamis, Heba	ThFPoT8.5	64
Kawahara, Tomohiro	ThBPoT17.2	49	Khan, Abia	WeAT7.5	3
Kawahito, Shoji	FrAT19.4	84	Khan, Arif Ullah	WeCT10.2	23
	FrFPoT9.11	119	Khan, Javed	ThBPoT5.33	43
Kawai, Toshikazu	SaBPoT5.29	140	Khan, Musabbir	FrBPoT7.2	91
Kawakami, Yoko	SaBPoT8.11	144	Khan, Wajahat Ali	ThFPoT22.6	72
Kawamoto, Hiroaki	ThFPoT15.7	69	Khan, Yasser	ThGT2.4	73
Kawamura, Kazuya	WeAT1.5	1	Khandoker, Ahsan Habib	ThAT5.3	34
Kawanabe, Motoaki	WeBPoT15.15	16		ThBPoT2.19	39
Kawanaka, Haruki	WeBPoT6.11	11		SaAT5.1	128
Kawano, Masaru	SaBPoT5.5	139	Khantachawana, Anak	ThBPoT15.1	49
Kawano, Yusuke	SaBPoT5.37	141	Kharche, Sanjay	ThFPoT10.4	65
Kawasaki, Hiroshi	SaAT8.1	129	Khas Ahmadi, Amirhosein	FrBPoT3.14	88
Kawasaki, Motoji	ThBPoT6.3	44	Kheddar, Abderrahmane	WeCT17.3	25
Kawasaki, Ryohei	ThBPoT12.2	47	Kheirandish-Gozal, Leila	ThBPoT2.20	40
Kawashima, Kenji	FrBPoT22.3	97		ThFPoT11.8	66
Kawashima, Noritaka	ThAT9.5	35	Kheirati Roonizi, Ebadollah	WeAT18.2	6
Kawashima, Ryuta	WeET20.2	32	Kheirkhah Dehkordi, Parastoo	FrBPoT3.10	87
	FrET2.6	100		FrGT17.6	125
Kayanuma, Hidenori	ThFPoT12.13	66	Kheirkhah, Ahmad	FrAT7.4	81
Kayashita, Jun	FrFPoT1.27	107	Khelifi, Fouad	FrET16.1	104
Kazantzaki, Eleni	ThBPoT24.4	52		FrET16.2	104
Kazemina, Salome	ThBPoT5.29	43	Khira, Ashraf	WeBPoT13.7	15
Kazmierczak, Ed	ThFPoT24.5	73	Khobragade, Nivedita	ThAT17.5	37
Ke, Yufeng	ThGT3.6	74	Khodadadi, Hossein	ThET6.3	56
Kearney, Robert Edward	WeBPoT20.10	18	Khodam Hazrati, Mehraz	ThBPoT3.8	41
	ThFPoT9.4	64	Khodamoradi, Alireza	ThBPoT14.14	49
	ThFPoT9.5	64	Khonasty, Richardo	WeBPoT19.1	17
	FrBPoT17.5	95	Khoo, Michael	WeET2.1	C
	FrBPoT17.6	95		WeET2.3	27
	SaBPoT4.5	138		ThDT1.1	C
Kebriaei, Hamed	ThET16.2	58		ThET1.1	C
Keene, Jennifer	SaBPoT6.5	141		ThGT1.1	C
Keil, Andreas	ThBPoT3.8	41		ThGT1.3	73
Keim, Steven	ThAT2.5	33		SaAT2.2	127
Kelder, Adam	FrBPoT6.9	91	Khosrow-khavar, Farzad	FrET12.1	104
Keller, James M	FrGT15.3	124	Khosrowshahli, Elham	WeAT4.4	2
Keller, Melissa	ThET11.1	57	Khraiche, Massoud	ThET11.1	57
Keller, Thierry	ThFPoT12.19	67	Khushaba, Rami N.	WeCT11.5	24
Kellomäki, Minna	FrAT6.3	80	Kiani, Mehdi	WeBPoT7.4	12
Kelly, Daniel	WeAT21.1	CC		ThAT20.5	38
	WeAT21.4	7	Kibritoğlu, Erman	FrBPoT24.6	98
Kelly, Debbie	ThFPoT13.4	68	Kidmose, Preben	WeET20.3	32
Kelly, Michael E.	SaBPoT7.1	143		ThBPoT7.1	44
	SaBPoT7.2	143	Kido, Michiko	FrFPoT6.15	117
Kelly, Stephen	ThFPoT7.4	63		FrFPoT6.21	117
Kelp, Alexandra	ThBPoT2.15	39	Kido, Shoji	ThBPoT5.10	42
Kelsey, Matthew	ThAT18.4	37		FrFPoT4.12	112
Kempfner, Lykke	WeBPoT3.14	9	Kieser, Eduard	WeBPoT21.9	18
Kempinski, Arcady	FrFPoT2.33	109		FrAT2.4	79
Kemps, Hareld	FrGT15.5	124	Kifle, Yonatan	WeCT20.5	26
Ken, Chen	ThBPoT5.9	42	Kijak, Nicoletta	ThGT11.3	76
Kenda, Fulvio	WeBPoT20.5	17	Kikkawa, Takamaro	ThFPoT7.9	64
Kenny, Rose Anne	WeET9.4	29	Kikuchi, Hayato	ThFPoT16.1	69
Kent, Alexander R.	FrAT16.3	83	Kikuchi, Hiroe	ThET17.3	59
Keränen, Niina	FrFPoT8.18	118	Kikuchi, Ryo	SaBPoT1.16	133
Kerr, Matthew	FrBPoT14.1	94	Kilchenmann, Samuel	SaBPoT3.32	137
	FrBPoT14.2	94	Kilintzis, Vassilis	ThAT12.5	36
Kersaudy, Pierric	ThBPoT9.15	46	Kim, Chang Won	SaBPoT5.32	140
Keshava, Nirmal	SaDT1.1	145	Kim, Changhyeon	WeBPoT21.7	18
			Kim, Changmin	ThFPoT7.3	63

Kim, Chang-Sei	FrFPoT5.11	114	Kim, Kyu-Sung	FrFPoT9.22	119
Kim, Choong Hyun	SaBPoT5.10	140	Kim, Laehyun	ThGT8.3	75
Kim, Chul Seung	ThFPoT17.1	69	Kim, Lawrence H.	ThFPoT17.10	70
Kim, Chulhong	SaDT6.1	145	Kim, Louis	SaAT3.5	127
	SaDT6.1	C	Kim, Mi Seon	FrFPoT5.4	114
Kim, Dae Young	FrFPoT9.22	119	Kim, Myeongjin	ThBPoT4.7	41
Kim, Daeyoung	FrFPoT2.8	108	Kim, Myoung-Soo	WeBPoT14.6	15
Kim, Deok Won	FrFPoT1.14	107	Kim, Nam Jeong	FrFPoT5.16	114
Kim, Do Kyun	FrFPoT6.3	116	Kim, Ockchul	FrFPoT3.22	111
Kim, Do Youn	FrFPoT3.16	110	Kim, Rae-Kwon	FrFPoT3.18	111
Kim, Dongmin	ThBPoT7.4	44	Kim, San	FrFPoT5.4	114
	ThFPoT5.9	62	Kim, Sang Kyong	ThET2.5	55
Kim, Dongsoo	FrET5.1	101	Kim, Sangjoon Jonathan	FrAT11.4	82
	FrFPoT3.27	111	Kim, Se-Hwa	SaBPoT2.11	135
Kim, Do-Won	FrFPoT1.9	107	Kim, Seong-Eun	SaBPoT1.2	133
Kim, Hak Hee	FrFPoT2.34	109	Kim, Seunghwan	ThBPoT2.35	40
Kim, Hanbyul	ThET2.5	55	Kim, Seung-Jong	SaBPoT5.28	140
Kim, Hee Chan	FrFPoT2.13	108		SaBPoT6.16	142
	FrFPoT3.13	110		SaBPoT6.39	143
	FrFPoT3.16	110	Kim, Seung-Jun	WeBPoT5.3	10
	FrFPoT5.21	115	Kim, Sewoong	SaBPoT2.22	136
	FrFPoT5.22	115	Kim, Sohee	SaBPoT6.3	141
	FrFPoT5.23	115	Kim, Sung Woo	FrFPoT1.14	107
	FrFPoT6.3	116	Kim, Sungwan	FrFPoT5.23	115
	FrFPoT6.4	116		FrFPoT6.3	116
	FrFPoT6.6	116	Kim, Sunhee	ThBPoT5.31	43
	SaBPoT1.9	133	Kim, Yeonghun	SaBPoT6.16	142
	SaBPoT2.28	136		SaBPoT6.39	143
	SaBPoT8.6	144	Kim, Yongjun	WeBPoT14.6	15
Kim, Heejin	FrFPoT1.15	107	Kim, Yong-Wook	FrFPoT4.16	112
	SaBPoT8.6	144		SaBPoT6.14	141
Kim, Hongjun	FrFPoT3.19	111	Kim, Yongwook Bryce	FrAT17.4	83
Kim, Hun-Seok	WeCT20.5	26		SaBPoT1.44	135
Kim, Hyeogju	FrFPoT5.4	114	Kim, Young-Hwan	WeBPoT23.6	19
Kim, Hyeong-U	ThFPoT7.2	63	Kim, Youngjun	ThBPoT5.31	43
	FrFPoT3.2	110		ThGT8.3	75
Kim, Hyeyoun	FrFPoT3.2	110	Kim, Yu Jin	WeCT15.1	24
Kim, Hyun Jo	FrFPoT1.15	107	Kim, Yunjoo	WeBPoT9.1	13
	FrFPoT6.6	116	Kimiskidis, Vasilios	ThET18.4	59
Kim, Hyung Joong	SaBPoT2.17	135	Kimura, Hiroyuki	SaBPoT6.12	141
Kim, Hyungmin	SaBPoT6.16	142	Kimura, Yoshitaka	SaAT5.1	128
	SaBPoT6.39	143	Kindle, Alex	SaAT3.6	128
Kim, Hyunki	WeBPoT21.7	18	King, Gregory	FrBPoT16.2	95
Kim, Insoo	SaDT8.3	146	King, Jung-Tai	FrBPoT14.6	94
Kim, Isaac Y.	ThAT19.1	38	Kingma, Herman	FrET15.2	104
Kim, Jae Jun	SaBPoT5.4	139	Kinnaird, Catherine	SaBPoT6.1	141
	SaBPoT5.20	140	Kiranyaz, Serkan	ThAT17.3	37
Kim, Jae-Won	SaBPoT5.20	140	Kirk, Andrew G.	FrBPoT7.4	91
Kim, Jang Ah	ThFPoT7.2	63	Kirplani, Haresh	FrFPoT5.27	115
	ThFPoT7.3	63	Kirson, Eilon David	FrBPoT23.1	97
Kim, Jeehoon	ThBPoT2.10	39	Kishi, Akifumi	SaBPoT1.22	134
	ThFPoT18.2	71	Kishi, Takuya	SaBPoT4.12	138
Kim, Je-Nam	SaBPoT5.4	139		SaBPoT4.13	138
	SaBPoT5.20	140		SaBPoT4.14	138
Kim, Jeonghun	ThET8.6	57	Kishida, Akio	SaBPoT7.17	144
Kim, Jeong-Youn	FrFPoT4.15	112	Kitagawa, Kazuki	FrFPoT9.10	119
Kim, Jieun	FrDT9.3	99	Kitagawa, Masashi	FrFPoT6.7	116
Kim, Ji-Hoon	FrBPoT8.5	91	Kitahara, Kosuke	FrBPoT14.3	94
	SaBPoT1.9	133	Kitamura, Akira	SaAT20.6	132
Kim, Jihyun	FrFPoT5.16	114	Kitamura, Norihide	FrAT12.5	83
Kim, Jinhyuk	ThET17.3	59	Kiviniemi, Antti	ThAT5.3	34
Kim, Jinman	ThBPoT5.16	42	Kiviniemi, Vesa Johannes	WeBPoT5.2	10
Kim, Jinseok	FrFPoT3.22	111	Kiyohara, Yoshio	SaBPoT2.16	135
Kim, Jong Pal	FrBPoT8.5	91	Kiyono, Ken	WeCT1.4	20
Kim, Juhyon	FrFPoT8.3	117		WeET5.1	28
	FrFPoT8.4	117		ThBPoT14.13	49
	FrFPoT8.5	118	Kiyono, Masaki	FrFPoT4.13	112
Kim, Jung	WeBPoT9.1	13		SaBPoT1.17	133
	ThBPoT14.11	49		WeBPoT3.13	9
	FrAT11.4	82	Kjaer, Troels Wesenberg	ThBPoT9.5	45
Kim, Jung Hee	FrFPoT5.23	115	Klabunde, Thomas	WeET1.3	26
Kim, JungGi	SaBPoT5.32	140	Klaue, Daniel	WeCT10.3	23
Kim, Justin Younghyun	SaDT8.3	146	Klauke, Isabelle	FrAT7.2	81
Kim, JuYoung	FrFPoT3.19	111	Klaver, C.C.W.	ThFPoT7.7	64
Kim, Kap Jin	FrFPoT2.12	108	Klein, Adrian	ThGT4.5	74
Kim, Keekyoung	SaBPoT7.16	144	Klenk, Jochen	FrDT2.3	98
Kim, Kun-Il	FrFPoT4.15	112	Klerman, Elizabeth B.	FrBPoT20.1	96
Kim, Kwang Gi	SaBPoT2.37	136	Klimes, Petr	WeET17.1	31
Kim, Kyoungsoon	SaBPoT5.14	140	Klodowski, Krzysztof	WeAT19.3	6
Kim, Kyu Min	FrFPoT3.19	111		WeAT19.4	6
Kim, Kyung	SaBPoT5.4	139			
	SaBPoT5.20	140			

Klücken, Jochen	ThBPoT6.1	44	Konczak, Juergen	WeAT11.6	4
	ThGT4.2	74		ThBPoT18.8	50
	ThGT18.6	77		ThBPoT18.9	50
Klucznik, Richard	FrET19.4	105	Kondo, Chihiro	WeBPoT5.5	10
Klünder, Mario	ThBPoT2.15	39	Kondo, Fukuo	FrFPoT2.8	108
Knafnitz, Marco	WeBPoT23.4	19	Kondo, Kenji	FrFPoT4.12	112
	FrBPoT2.15	86	Kondo, Masaya	SaBPoT5.22	140
	FrGT11.1	C	Kondo, Toshiyuki	ThFPoT2.1	60
	FrGT11.6	123		ThFPoT4.4	62
Knight, Caroline	FrAT12.3	82		FrBPoT14.3	94
Knippels, Ingrid	WeBPoT6.15	11	Kondo, Yuki	SaBPoT6.8	141
Knoefel, Frank-Dietrich	FrGT6.5	122	Kondylakis, Haridimos	WeBPoT25.7	20
Knoll, Alois	ThFPoT17.14	70	Kondziella, Daniel	WeBPoT21.1	18
Knuesel, Robert	WeAT4.6	2		ThBPoT13.5	47
Ko, Hoon	SaBPoT2.31	136	Konecny, Filip	ThDT16.3	54
	SaBPoT3.22	137	Kong, Weisheng	ThBPoT6.3	44
	FrBPoT8.5	91		FrET2.6	100
Ko, Hyounggho	SaAT1.6	127	Kong, Youngsun	ThET17.5	59
Ko, Match Wai Lun	FrFPoT5.27	115	König, Peter	FrFPoT4.28	113
Ko, Tiffany	FrFPoT2.8	108		SaBPoT6.27	142
Kobayashi, Etsuko	SaBPoT5.30	140	Konno, Shujiro	FrFPoT8.3	117
Kobayashi, Hiroyuki	ThAT6.2	34	Kono, Shinya	SaAT20.6	132
Kobayashi, Kazuto	FrBPoT5.1	90	Konofagou, Elisa	FrFPoT9.20	119
	FrBPoT3.22	88	Konstantinovic, Ljubica	ThFPoT12.19	67
Kobayashi, Naoki	WeAT1.5	1	Kontunen, Anton Santeri	ThFPoT7.8	64
Kobayashi, Yo	ThBPoT18.3	50	Koo, Bonkon	WeBPoT15.14	16
	ThFPoT16.1	69	Koo, Hyojin	FrET5.1	101
	SaBPoT1.45	135		FrFPoT3.27	111
Koc, Basar	ThBPoT5.3	42	Koo, Kyoin	ThBPoT16.5	49
Kocejko, Tomasz	WeCT8.5	23	Kooij, Bert Jan	WeAT17.1	6
Koch, Julia	WeBPoT7.1	12		WeAT17.2	6
Kochhar, Kanika	ThAT7.4	34	Koolen, Ninah	WeCT4.1	21
Kock, Ann-Kristin	WeCT15.4	24		SaBPoT1.27	134
Kodabashi, Atsushi	SaBPoT6.33	142	Koopman, Bart	FrBPoT18.1	95
Kodagoda, Sarath	WeCT11.5	24	Koozekanani, Dara	ThFPoT6.5	63
Kodama, Mitsuhiro	FrBPoT15.1	94	Kor, Daryl	FrET16.3	104
Kodama, Taisuke	WeBPoT18.3	17	Korakata, Yuki	FrBPoT2.17	86
Koenig, Anne	WeET20.5	32	Korats, Gundars	WeBPoT4.9	10
Koeny, Marcus	ThFPoT19.5	71		ThET19.2	59
Kofránek, Jiří	WeCT2.6	21		ThFPoT19.4	71
	ThBPoT23.1	51	Korcowski, Louis	WeCT17.4	25
	ThBPoT23.2	51	Kordzadeh, Atefeh	FrET7.3	102
Kogan, Ilya	ThBPoT4.9	41	Korhonen, Ilkka	WeAT20.1	7
Koh, Zhi Xiong	FrFPoT5.14	114		WeCT8.1	C
	FrFPoT5.17	114		WeCT9.2	23
Kohama, Takeshi	FrBPoT15.1	94		ThAT4.1	C
	FrFPoT1.23	107		ThAT4.2	33
	FrFPoT2.10	108		ThDT2.1	C
Kohl, Manuel	WeCT10.3	23		ThDT2.5	52
Kohler, Mark	WeCT18.6	25		SaAT17.1	CC
Kohlhauer, Matthias	WeCT13.3	24		SaAT17.6	131
Kohli, Siddharth	WeBPoT14.4	15		SaDT5.2	145
	ThBPoT13.14	48	Korik, Attila	SaAT18.1	131
Koide, Tetsushi	WeBPoT6.19	12	Kornagel, Ulrich	WeCT10.3	23
	ThBPoT5.13	42	Korostovtseva, Lyudmila	WeAT17.1	6
Koido, Jun	WeBPoT24.6	20		WeAT17.2	6
Koie, Yusuke	FrFPoT4.13	112	Korpelainen, Raija	FrFPoT8.18	118
	SaBPoT1.17	133	Kortelainen, Jukka	WeAT5.1	CC
Koike, Yasuharu	SaBPoT5.12	140		WeAT5.5	2
Koirala, Nabin	ThFPoT5.10	62	Kortenhorst, Madeleine Susanne Quirine	FrBPoT1.1	84
	FrBPoT3.29	88	Kosa, Gabor	WeBPoT12.6	14
Koiso, Takashi	FrBPoT20.6	96		SaAT1.3	127
Kojima, Katsura	SaBPoT7.11	144	Kosaka, Ryo	WeAT12.3	4
Kojima, Koichi	SaBPoT4.8	138		ThBPoT10.1	46
Kojima, Tomohiro	SaBPoT5.39	141		FrBPoT7.3	91
Kojima, Tomoki	SaBPoT5.39	141	Kosel, Markus	WeET18.1	31
Kolar, Radim	ThGT7.3	75	Kosmidou, Vasiliki	ThFPoT2.2	60
Kolbl, Florian	WeET10.2	29		FrGT10.6	123
Kolias, Vassileios	WeBPoT25.1	20	Kostas-Agnantis, Ioannis	WeET2.1	27
Kollias, Spyros	WeBPoT5.6	10	Kostka, Pawel Stanislaw	FrBPoT1.25	85
Kollmann, Daniel	FrAT8.1	81	Kostoglou, Kyriaki	ThBPoT9.13	46
Kolobe, Thubi	ThFPoT14.7	68	Kostopoulou, Eirini	ThAT7.2	34
Komaba, Yusuke	ThGT21.1	78	Kostretzis, Lazaros	FrBPoT12.2	93
	FrET2.3	100	Kotani, Hiroko	SaAT10.2	130
Komeda, Takashi	ThBPoT22.6	51	Kotani, Kiyoshi	FrET10.1	103
Kominami, Yoko	WeBPoT6.19	12		FrFPoT3.17	111
	ThBPoT5.13	42	Kotev, Vladimir	ThBPoT8.7	45
	FrAT19.4	84	Kouamé, Denis	FrBPoT5.10	90
Komorowski, Dariusz, Waldemar	ThFPoT1.11	60		SaAT6.5	129
	FrBPoT1.24	85	Kouchaki, Samaneh	FrET4.5	101
Kompatsiaris, Ioannis (Yannis)	ThFPoT2.2	60	Kouchaki, Zahra	WeET9.2	29
	FrGT10.6	123		FrAT9.5	82

Koulaouzidis, Anastasios	WeBPoT6.6	11	Kukreja, Sunil	ThFPoT15.13	69
	FrFPoT2.29	109		SaAT10.4	130
Kountouras, Jannis	FrBPoT12.2	93	Kulasekeram, Nishanth	ThAT20.6	38
Kourou, Konstantina	FrGT16.5	124	Kulhánek, Tomáš	ThBPoT23.1	51
Koutlis, Christos	ThET18.4	59		ThBPoT23.2	51
Koutsouris, Dimitrios	WeBPoT10.7	13	Kulkarni, Atul	ThFPoT7.2	63
	FrBPoT12.2	93		ThFPoT7.3	63
	FrET20.3	106		FrFPoT3.2	110
	FrFPoT6.25	117	Kulkarni, Kanchan	FrBPoT1.2	84
	SaAT20.1	132	Kulkarni, Vishwesh	WeBPoT11.4	14
Kovacs, Gregory T.A.	FrBPoT8.2	91	Kumagaya, Shin-ichiro	ThAT10.2	35
Kovatis, Kelley Z.	FrFPoT5.27	115	Kumar Sanki, Pradyut	SaAT9.6	130
Kown, Nayoung	FrFPoT6.9	116	Kumar Thakur, Rupak	WeBPoT8.6	12
Koyama, Daisuke	FrFPoT2.37	110	Kumar, Deepak	ThFPoT21.2	72
Koyama, Toshio	FrBPoT8.7	91	Kumar, Vijay	WeET7.6	29
Kozlov, Mikhail	ThBPoT9.2	45	Kumar, Vikas	FrBPoT20.9	96
	FrAT16.2	83	Kumbar, Sangamesh	ThDT9.1	CC
	SaAT7.1	129	Kun, Luis	ThET13.3	58
	SaAT7.1	C		SaDT21.1	147
Kozubek, Michal	SaAT19.4	132	Kunhoth, Suchithra	FrET16.2	104
Kozuka, Kazuki	ThBPoT5.10	42	Kunikane, Noriaki	SaAT16.2	131
	FrFPoT4.12	112	Kuniyoshi, Yasuo	ThAT10.2	35
	FrFPoT4.13	112		ThFPoT12.8	66
	SaBPoT1.17	133	Kuo, Braden	ThFPoT13.2	68
Kraal, Jos	FrGT15.5	124		FrDT9.3	99
Krafft, Marie Pierre	FrFPoT2.37	110	Kuo, Li-Wei	WeAT19.5	7
Kralisch, Caroline	FrBPoT3.11	87	Kuo, Po-Chen	FrFPoT6.13	117
Krämer, Bernhard	FrAT16.1	83	Kuo, Y.W.	WeBPoT10.9	14
Krasoulis, Agamemnon	FrET11.3	103	Kuoppa, Pekka	SaBPoT4.23	139
Krause, Holger	SaAT18.5	132	Kupari, Salla	FrFPoT5.24	115
Krauss, Baruch	WeCT13.1	24	Kuralay, Filiz	SaBPoT3.35	137
	WeCT13.4	24	Kurashige, Hiroki	ThFPoT5.7	62
Krausz, Gunther	ThET5.1	55	Kuriki, Shinya	WeCT19.1	26
Krausz, Nili Eliana	SaBPoT5.25	140	Kurillo, Gregorij	ThGT21.3	78
Kravic, Jasmina	WeET12.1	30	Kurita, Takio	WeBPoT6.19	12
Krefer, Andriy G.	ThAT6.4	34	Kurita, Yuichi	FrAT5.6	80
Kretzberg, Jutta	FrBPoT4.12	89		SaBPoT5.22	140
Krief, Helene	FrDT2.1	98	Kuroda, Yoshihiro	WeBPoT10.2	13
Krishnan, Karthik	WeET7.1	C	Kurz, Eva-Maria	WeET3.1	27
	WeET7.5	29	Kurzweg, Timothy	ThFPoT8.4	64
	ThBPoT5.18	42	Kusaka, Takashi	ThET9.2	57
	ThBPoT5.37	43		ThET9.3	57
Krishnan, Shankar	FrFPoT9.25	119		FrBPoT16.4	95
Krishnan, Shankar Muthu	ThET13.2	58	Kusano, Toshiki	ThFPoT5.7	62
Krishnan, Sridhar	WeAT5.4	2	Kusmakar, Shitanshu	WeBPoT3.8	9
	FrBPoT3.16	88		WeBPoT3.9	9
Krishnaswamy, Pavitra	FrFPoT1.22	107	Kusumoputro, Benyamin	ThBPoT2.25	40
Kritsotakis, Vangelis	FrBPoT19.7	96	Kuwabara, Kei	FrBPoT19.4	96
Krivoshei, Andrei	ThBPoT2.17	39	Kuwahara, Hiroyuki	SaDT9.2	146
Kroch, Gabriel Moshe	SaBPoT6.4	141	Kuwahara, Noriaki	SaBPoT6.33	142
Kroll, Mark	WeAT15.4	5	Kuzmin, Andrey	FrAT2.5	79
	WeBPoT23.7	19	Kwak, Jin Tae	SaBPoT2.35	136
	FrAT8.1	81	Kwak, Young Ho	FrFPoT6.3	116
	FrET15.6	104	Kwiatkowska, Marta	FrET15.1	104
Krundel, Ludovic	ThBPoT13.7	48	Kwok, John C.K.	WeBPoT24.1	19
Krzyzak, Artur, Tadeusz	WeAT19.2	6		WeBPoT24.2	19
	WeAT19.3	6		FrFPoT5.32	115
	WeAT19.4	6	Kwon, Chiheon	FrFPoT3.16	110
Ku, Jeonghun	FrFPoT6.9	116		FrFPoT5.22	115
Ku, Yunseo	FrFPoT1.15	107	Kwon, Chunga	FrFPoT1.10	107
	FrFPoT3.16	110		SaBPoT7.8	143
	FrFPoT5.22	115	Kwon, Euichul	SaBPoT3.23	137
	SaBPoT1.9	133	Kwon, Jang Woo	FrFPoT9.22	119
Kublanov, Vladimir	WeET10.6	30	Kwon, Min Kyung	FrFPoT5.26	115
Kubo Masahiro, Masahiro	ThFPoT19.1	71	Kwon, Sungjun	ThBPoT2.10	39
Kubota, Masafumi	FrFPoT4.13	112		ThET2.5	55
	SaBPoT1.17	133		ThFPoT18.2	71
Kuchimov, Shavkat	SaBPoT5.6	139	Kwon, Taekyu	SaBPoT5.4	139
Kudo, Yoshihiro	SaBPoT5.40	141		SaBPoT5.20	140
Kudo, Yuta	ThBPoT7.2	44	Kyeong, Seulki	WeBPoT9.1	13
Kudoh, Suguru	WeCT5.6	22	Kyoso, Masaki	ThBPoT2.24	40
	FrFPoT4.35	113	Kyriacou, Efthymoulos	WeAT8.1	3
	SaBPoT1.36	134		WeAT15.6	5
	SaBPoT6.2	141	Kyriacou, Panayiotis	WeBPoT8.9	13
Kuei, Cheng-Kai	FrGT8.6	122		ThBPoT9.12	46
Kugiumtzis, Dimitris	ThET18.4	59		ThGT2.3	73
Kuijsters, Nienke Pertronella Maria	FrBPoT1.1	84		FrBPoT7.5	91
Kuiken, Todd	WeBPoT16.1	16		SaAT8.2	129
	WeCT11.6	24		SaAT8.5	129
	SaBPoT5.8	139	Kyriakidi, Kalliroi	ThBPoT5.38	43
Kuklik, Pawel	FrAT8.4	81			

L					
La Cruz, Alexandra	ThAT12.6	36	Larizza, Piero	WeAT21.1	7
	FrFPoT7.2	117	Larsen, Mark Erik	FrET20.2	106
Lachapelle, John	SaAT3.6	128	Larson-Prior, Linda	ThAT18.4	37
Lacher, Rene Michel	FrAT19.2	84	Laschi, Cecilia	ThBPoT19.2	50
Lacour, Stéphanie	SaAT12.3	130		ThBPoT19.3	50
Lacquaniti, Francesco	ThDT6.1	53		FrGT3.2	120
Ladenstein, Ruth	FrBPoT21.4	97		FrGT3.3	121
Lafond, Caroline	ThAT19.3	38		FrGT3.4	121
	ThGT6.1	74	Lass, Jaanus	ThFPoT2.4	61
Lafortuna, Claudio Lorenzo	FrET2.1	100		SaAT18.2	131
Lagae, Lieven	FrAT5.2	80	Lassen, Annmarie	FrBPoT20.8	96
	SaBPoT1.13	133		SaDT2.1	145
Lagana, Maria Marcella	SaBPoT2.24	136	Lassi, Glenda	WeBPoT3.12	9
Lagaris, Isaac	WeET2.1	27	Latcu, Decebal Gabriel	WeAT5.2	2
Lago, Paolo	ThGT2.1	CC	Latt, Daniel	FrFPoT5.10	114
Lagrée, Pierre-Yves	SaBPoT4.17	138	Latt, Win Tun	ThET7.3	56
Laguna, Pablo	FrBPoT3.6	87	Lau, Chiew Tong	ThBPoT24.2	51
Laha, Soumyasanta	SaAT12.1	130	Lau, Ken	WeBPoT6.8	11
Lai, Dakun	ThFPoT10.10	65		ThBPoT5.40	44
Lai, Feipei	ThFPoT9.13	65	Laude, Augustinus	ThFPoT6.3	63
	ThFPoT19.3	71	Laurenson, Callum	WeBPoT9.6	13
Lai, Stefano	SaAT9.1	129	Laurenzi, Susanna	ThFPoT8.1	64
Laich, Larissa Heike	FrBPoT2.26	87	Laureys, Steven	ThGT17.5	77
Laine, Andrew F.	WeET19.1	C		FrBPoT2.10	86
	WeET19.2	32	Lauria, Mario	ThFPoT9.12	65
Lakany, Heba	WeBPoT1.4	7		SaBPoT8.16	144
Lakshmanan, Suganthi	WeET2.5	27		SaBPoT8.22	145
Lalande, Alain	FrFPoT5.19	115	Lauridsen, Mette V.	WeET10.1	29
Laleg, Taous-Meriem	ThAT18.6	38	Laurino, Marco	WeAT8.6	3
Lall, Brejesh	ThBPoT3.2	40		WeAT17.4	6
Lallier, Marie	FrET3.1	101		WeBPoT3.11	9
Lalor, Edmund	FrAT11.1	82		ThFPoT9.7	64
	SaBPoT2.13	135	Lavarello, Roberto	WeCT6.6	22
Lam, Alexander K.N.	WeBPoT24.1	19		ThET6.4	56
	WeBPoT24.2	19	Lawson, Brian	ThGT9.3	76
	FrFPoT5.32	115		ThGT9.5	76
Lam, David C.C.	WeBPoT24.1	19	Layek, Ritwik	ThBPoT9.10	46
	WeBPoT24.2	19		ThGT16.4	77
	FrFPoT5.32	115	Lazar, Roland M	ThGT19.4	78
Lam, Fan	FrGT7.1	122	Lazarova, Zuzana	WeCT18.4	25
Lamard, Mathieu	FrET7.1	102	Lazovic, Biljana	ThFPoT11.1	65
Lambermont, Bernard	SaBPoT4.15	138	Lazzari, Fabio	SaBPoT6.42	143
Lambert, Aurélien	WeBPoT14.5	15	Lazzaro, Giuseppe	SaAT15.2	130
Lambert, Laurent	WeAT8.3	3	Lazzeroni, Davide	WeAT13.2	5
Lambiase, Pier	FrAT8.2	81	Lazzi, Gianluca	ThAT2.3	33
	FrAT8.3	81	Le Bihan, Denis	WeAT19.6	7
Lamer, Antoine	SaAT20.3	132	Le Bihan, Nicolas	FrBPoT9.9	92
Lamera, Roberta	FrBPoT22.6	97	Le Cam, Steven	WeBPoT4.9	10
Lammer, Jan	SaAT16.5	131		ThET19.2	59
Lamp, Jürgen	ThBPoT2.17	39	Le Gouestre, Jonathan	WeET19.1	32
Lan, Ning	ThAT10.1	CC	Le, Hoa	SaBPoT3.34	137
	ThAT10.4	35	Le, Lawrence H	WeCT6.1	22
	ThBPoT13.1	47	Leaker, Benjamin	FrFPoT8.7	118
Lanata', Antonio	WeAT13.4	5	Leaker, Brian	ThBPoT13.4	47
	WeET5.2	28	Leal, Adriana	FrBPoT1.6	85
	WeET20.6	32	Leask, Richard	WeBPoT12.2	14
	ThFPoT14.2	68	Lebailly, Quentin	FrBPoT4.16	89
	FrAT12.4	82	Lebois, Alice	WeAT19.6	7
	FrBPoT2.25	87		FrFPoT2.17	109
Landi, Alberto	WeAT17.4	6		FrFPoT9.26	119
	WeBPoT3.11	9	Lechuga, Yolanda	ThBPoT10.8	46
	ThFPoT9.7	64	Leclercq, Christophe	ThAT6.3	34
Landini, Luigi	FrBPoT2.23	87		FrET19.2	105
	FrBPoT2.24	87	Lecours, Alexandre	ThFPoT8.3	64
	FrGT2.1	120	Lecumberri, Pablo	FrET18.4	105
	FrGT7.6	122	Leddy, Michael	ThFPoT15.6	69
	SaAT7.1	CC	Leder, Ron	SaDT21.1	147
	SaBPoT2.34	136	Lederlin, Mathieu	ThAT6.3	34
Landini, Nicholas	FrBPoT6.3	90	Lederman, Dror	FrBPoT6.9	91
Landrum, Brett	WeET8.2	29	Ledesma, Andres	FrGT15.4	124
Lang, Christine	ThGT16.3	77	Ledet, Eric	ThBPoT23.4	51
Lang, Min	FrAT5.4	80		FrFPoT7.3	117
Lang, Nadine	WeBPoT2.2	8		SaDT11.8	147
Lange, Katrin	FrBPoT3.29	88	Ledoux, Elissa Danielle	ThGT9.5	76
Langlet, Billy	SaAT4.4	128	Lee, Beng Hai	WeCT8.3	23
Lanzola, Giordano	ThFPoT5.11	63		ThFPoT6.3	63
	FrET20.5	106	Lee, Boon-Giin	FrBPoT3.4	87
Laohakangvalvit, Tippom	FrFPoT6.12	116	Lee, Boon-Leng	FrBPoT3.4	87
Lappalainen, Reijo	FrFPoT5.24	115	Lee, Boreom	SaBPoT2.22	136
			Lee, Chang Min	SaBPoT5.10	140
			Lee, Chang-hyung	FrFPoT5.4	114

Lee, Che Yen	FrFPoT3.23	111	Lee, Seungchan	SaBPoT1.11	133
Lee, Chia-Hung	SaAT12.2	130	Lee, Seunghwan	FrFPoT3.34	111
Lee, Chung shu	FrFPoT1.7	107	Lee, Soo Hyun	ThBPoT13.9	48
	FrFPoT1.11	107	Lee, Sooyeul	FrFPoT2.34	109
Lee, Clement	FrGT5.5	121	Lee, Su-Jae	FrFPoT3.18	111
Lee, Deukhee	ThBPoT5.31	43	Lee, Sunghoon Ivan	SaAT17.3	131
	ThGT8.3	75	Lee, Sungsik	SaBPoT3.11	137
Lee, Dongheon	FrFPoT8.11	118	Lee, Sungyoung	ThFPoT22.6	72
	SaBPoT2.28	136	Lee, Suwon	ThBPoT16.5	49
Lee, Dongseok	ThBPoT2.10	39	Lee, Tae Geol	SaBPoT2.11	135
	ThFPoT18.2	71	Lee, Tae Soo	FrFPoT2.30	109
Lee, Doo Yong	ThBPoT4.7	41	Lee, Tak Hyung	FrBPoT8.5	91
Lee, Eojin	FrFPoT1.10	107	lee, Wang Wei	ThFPoT15.13	69
	SaBPoT7.8	143	Lee, Wei-Ning	FrFPoT2.25	109
Lee, Eun-Soo	SaBPoT2.11	135	Lee, Won Hee	SaBPoT6.4	141
Lee, Gi-Hun	FrFPoT3.9	110	Lee, Won Kyu	FrET12.2	104
Lee, H. J	WeBPoT5.14	10	Lee, Woo Chan	SaBPoT2.31	136
Lee, Hae-Dong	ThBPoT14.11	49	Lee, Wool	FrFPoT3.27	111
Lee, Hae-Seung	FrAT9.1	81	Lee, Woongwoo	ThET2.5	55
	FrET1.4	100	Lee, Yi Jae	ThBPoT13.9	48
Lee, Heung-No	SaBPoT1.11	133	Lee, Yongkyun	FrET5.1	101
	SaBPoT2.21	135	Lee, Yongsu	WeBPoT21.7	18
Lee, Hong Ji	ThET2.5	55	Lee, Younbaek	ThET8.6	57
Lee, Honglak	ThAT7.4	34	Lee, Young Woo	FrAT4.5	80
Lee, Hooseok	SaBPoT3.22	137	Lee, Yujin	ThFPoT18.3	71
Lee, Hwan-Gon	WeBPoT15.14	16		SaBPoT1.1	133
Lee, Hyuk Jin	ThFPoT17.1	69		SaBPoT6.30	142
Lee, I-Jung	ThFPoT12.21	67	Lee, Yunsung	FrFPoT8.11	118
Lee, Insup	WeCT4.4	21	Leeb, Robert	WeBPoT15.17	16
Lee, Ivan	FrET6.3	102	Leermakers, Nono	ThFPoT12.6	66
	SaAT6.1	128	Legallais, Cecile	WeBPoT23.5	19
Lee, Jaehyuk	WeCT13.6	24	Leguy, Carole	WeBPoT21.3	18
Lee, Jaeryoung	FrAT10.5	82	Lehmann, Torsten	ThFPoT11.4	65
	SaBPoT5.11	140	Lehocky, Craig A.	SaBPoT5.36	141
Lee, Jeon	WeBPoT5.3	10	Lehser, Caroline	WeET5.5	28
Lee, Jeong Pyo	FrFPoT2.30	109	Leibinger, Alexander	WeET1.6	26
Lee, Jeongman	FrFPoT6.22	117	Leicht, Lennart	FrGT12.4	124
Lee, Ji Soo	FrFPoT2.13	108	Leier, Mairo	WeCT20.6	26
Lee, JiHae	FrFPoT5.26	115		FrBPoT8.1	91
Lee, Jihyoung	SaBPoT1.21	134	Leifman, George	FrGT19.6	125
	SaBPoT3.23	137	Leinveber, Pavel	FrBPoT11.2	92
Lee, Jimmy Addison	ThFPoT6.3	63	Leistritz, Lutz	ThGT17.1	77
Lee, Jinseok	SaBPoT2.31	136		FrGT4.3	121
	SaBPoT3.21	137	Leite, Maria Ruth	ThBPoT15.2	49
	SaBPoT3.22	137	Lejeune, Laurent	FrET12.3	104
Lee, Jong Min	SaBPoT6.16	142	Lekkala, Jukka	ThFPoT7.8	64
	SaBPoT6.39	143	Leland, Danny	ThFPoT21.5	72
Lee, Jonghwa	SaBPoT1.29	134	Lelevé, Arnaud	WeBPoT18.2	17
Lee, Joonyoung	FrFPoT5.21	115	Lemay, Mathieu	WeBPoT2.8	8
	FrFPoT6.6	116		SaAT17.2	131
Lee, Jung Chan	FrFPoT2.13	108		SaAT17.4	131
	FrFPoT3.13	110	Lemes Ignéz, Lucas	FrFPoT9.7	119
	FrFPoT6.3	116	Leminen, Miika	FrBPoT1.21	85
	FrFPoT6.4	116	Lemling, Sabrina	SaBPoT6.25	142
	SaBPoT8.6	144	LeMoyne, Robert	WeAT9.2	3
Lee, Jungwoo	FrFPoT2.21	109		FrBPoT19.3	96
Lee, Jusin	FrFPoT3.18	111	Lempitsky, Victor	FrAT2.5	79
Lee, Khuan Y.	ThBPoT2.26	40		FrET15.5	104
	ThFPoT14.8	68	Lenardi, Cristina	ThDT10.3	54
Lee, Kijoon	FrBPoT4.14	89	Leng, Chengcai	ThBPoT4.4	41
Lee, Kyoung Joung	ThET4.6	55	Leng, Shuang	WeAT15.3	5
	FrBPoT3.2	87		FrBPoT11.4	92
Lee, Matthew	WeBPoT1.9	8	Lengelé, Benoît	ThFPoT17.19	70
Lee, Ming-Yih	FrFPoT1.7	107	Lentino, Carmelo	SaBPoT6.22	142
	FrFPoT1.11	107	Lenzi, Tommaso	WeCT11.6	24
	FrFPoT6.8	116		SaBPoT5.25	140
Lee, Min-Ho	FrFPoT3.2	110	Leonardi, Riccardo	WeBPoT6.14	11
Lee, Minhyung	ThET8.6	57	Leonarduzzi, Roberto Fabio	WeET5.6	28
Lee, Po-Hsien	FrFPoT6.8	116		ThAT4.1	33
Lee, Ray	WeCT19.5	26	Leoncini, Clara	SaBPoT6.22	142
Lee, Samuel	FrAT2.2	79	Leone, Alessandro	FrFPoT8.6	118
Lee, Sang Min	FrFPoT9.22	119		FrFPoT8.12	118
	FrFPoT9.23	119	Leong, Chen Onn	WeBPoT5.11	10
Lee, Sang-Heon	SaAT6.1	128	Leong, Chin Neng	FrAT8.5	81
LEE, Sanghoon	ThBPoT6.13	44	Leong, Philip Heng Wai	WeET18.2	31
Lee, Sangjoon	ThFPoT15.14	69	Leong, Rupert	FrBPoT4.3	89
Lee, Sang-Won	SaBPoT2.11	135		SaAT19.5	132
Lee, Seulki	WeAT20.3	7			
Lee, Seung Hwan	ThET4.6	55			
	FrFPoT1.9	107			
Lee, Seung-Beck	FrFPoT3.18	111			
	FrFPoT3.19	111			

Leonhardt, Steffen	ThAT6.1	34	Li, Saiyi	ThBPoT1.2	38
	ThAT6.1	C	li, sha	WeET8.5	29
	ThFPoT4.2	62	Li, Shuai	SaBPoT4.26	139
	ThFPoT19.5	71	Li, Song	FrFPoT4.36	113
	FrGT12.1	C	Li, Wen-Tyng	FrFPoT5.36	116
	FrGT12.4	124		SaBPoT7.9	143
	SaBPoT3.3	137	Li, Xiaofei	ThBPoT1.1	38
Leontidis, Georgios	ThGT7.4	75		FrBPoT6.2	90
	ThGT7.5	75	Li, Xin	WeAT4.1	CC
	FrFPoT2.2	108		WeAT4.5	2
Leporace, Gustavo	ThBPoT2.23	40	Li, Xiuli	ThFPoT3.8	61
	SaBPoT1.18	134	Li, Xuan	FrBPoT5.12	90
Leporati, Paola	WeET12.2	30	Li, Yanmin	SaAT1.5	127
	WeET12.4	30	Li, Yao	ThGT19.5	78
Lepore, Natasha	WeAT7.1	2		FrAT19.6	84
Leseur, Julie	WeET19.1	32		FrBPoT1.15	85
Lesso, Paul	FrBPoT3.30	88	Li, Ye	WeAT4.5	2
Leung, Christopher K. S.	SaAT1.6	127		FrAT17.5	83
Leung, Hin Kwong	ThFPoT7.1	63	Li, Yudu	FrET17.3	105
Leung, Ping-chung	ThET9.6	57	Li, Yue	FrFPoT8.1	117
Leung, Siu Ling	WeAT12.2	4		FrFPoT8.7	118
Leung, Warren Pak Tao	WeBPoT25.2	20		FrFPoT8.8	118
Leutheuser, Heike	WeBPoT2.2	8		FrFPoT8.9	118
	FrAT5.1	80	Li, Yuhua	SaAT8.4	129
	FrBPoT2.16	86	Li, Yunlin	FrBPoT3.20	88
	FrBPoT2.26	87	Li, Zhi	FrAT10.1	82
Levato, Riccardo	WeCT16.4	25	Li, Zhi-Cheng	ThBPoT5.9	42
Levent, Vecdi Emre	FrBPoT2.4	86	Liacouras, Peter C.	ThFPoT17.15	70
Lever, Teresa	ThGT11.3	76	Liang, Dong	FrGT7.3	122
Levine, Jonathan M	ThFPoT5.1	62		FrGT7.5	122
Levero, Fabrizio	ThFPoT13.1	67	Liang, Jie	SaDT9.3	146
Lewis, Philip Mark	WeBPoT14.8	15		SaDT9.4	146
Lewis, Rohan B.	SaAT16.1	131	Liang, Jingtao	WeAT11.4	4
Lewis, Simon J.G.	FrBPoT13.11	94	Liang, Jiu-Xing	SaBPoT4.26	139
Lewy, Hadas	FrGT20.3	125	Liang, Li	ThET9.6	57
Ley, Sebastian	ThGT2.2	73	Liang, Sisi	FrBPoT11.3	92
L'Hostis, Philippe	ThGT2.5	73	Liang, Xi	ThBPoT5.8	42
Lhotska, Lenka	ThBPoT23.1	51		FrBPoT11.3	92
Li, Annan	ThBPoT5.25	43	Liang, Zhi-Pei	WeCT7.2	22
	FrFPoT2.32	109	Liao, Ai-Ho	ThBPoT15.3	49
Li, Changyang	ThBPoT5.16	42	Liao, Amy	WeBPoT21.2	18
Li, Chengyang	SaAT15.3	130		ThGT2.4	73
Li, Fan	WeBPoT5.4	10	Liao, Hongen	ThFPoT3.2	61
Li, Gang	ThFPoT17.6	70		ThFPoT3.6	61
	FrFPoT5.41	116	Liao, Lun-De	FrFPoT4.7	112
Li, Guanglin	ThBPoT2.4	39		FrFPoT5.3	114
	ThBPoT12.5	47	Liao, Yu-Te	FrGT8.6	122
	ThBPoT13.7	48	Liao, Yuxi	ThAT17.4	37
Li, Hangdao	FrAT19.6	84	Liapis, Christos	WeBPoT25.1	20
Li, He	FrFPoT2.25	109	Liasis, Nicolaos	FrBPoT5.2	90
Li, Heng	FrGT6.6	122	Liberini, Paolo	FrFPoT5.35	116
Li, Hengtong	ThBPoT5.27	43	Liberos, Alejandro	ThET4.1	55
Li, Hongbao	ThAT17.4	37	Libertino, Sebania	SaBPoT2.27	136
	FrBPoT13.8	93	Licht, Daniel J.	FrFPoT5.27	115
Li, Hongyi	SaAT1.5	127	Lichter, Patrick	WeAT4.6	2
Li, Huijun	ThBPoT18.10	50		FrAT8.1	81
Li, Jane	SaDT5.1	145		FrGT20.6	126
Li, Jiansen	FrET6.6	102	Liem, Nicholas	ThBPoT22.5	51
Li, Jia-Quan	SaBPoT4.26	139	Liew, Yih Miin	WeBPoT5.11	10
Li, Jinyan	SaAT20.2	132	Lightbody, Gaye	ThFPoT21.7	72
Li, Jue	WeAT2.3	1	Lightbody, Gordon	ThAT4.6	33
Li, Junhua	SaAT10.4	130		FrAT18.6	84
Li, Kai	ThBPoT5.9	42		FrBPoT1.4	84
Li, Lei	FrAT6.1	80		FrBPoT13.2	93
Li, Lianyang	FrET3.1	101	Lim, Calvin	ThBPoT23.5	51
	FrET3.2	101	Lim, Einly	WeBPoT5.11	10
Li, Luming	WeAT8.4	3		FrAT8.5	81
	FrFPoT5.1	114	Lim, Eunho	FrBPoT3.2	87
Li, Meng	ThFPoT22.9	72	Lim, Hae Gyun	FrFPoT2.21	109
	FrBPoT23.5	97	Lim, Hubert	ThGT3.2	74
Li, Michael Hong Gang	SaBPoT6.32	142	Lim, Hyungjoon	FrBPoT3.5	87
Li, Min	ThBPoT2.13	39	Lim, Hyunmi	FrFPoT6.9	116
	ThFPoT12.9	66	Lim, Jeffrey	ThET11.1	57
Li, Peng	ThBPoT13.1	47	Lim, Jeong-Hwan	FrFPoT4.16	112
	ThFPoT2.7	61		SaBPoT6.13	141
	ThFPoT5.1	62		SaBPoT6.14	141
	SaAT5.4	128	Lim, Khoon S.	ThAT16.6	37
Li, Pengye	ThFPoT10.10	65	Lim, Phang Boon	WeET6.4	28
Li, Qingsen	WeAT16.3	5		FrET19.3	105
Li, Quanzheng	ThFPoT11.3	65	Lim, Tock Han	ThFPoT6.3	63
Li, Ronny	FrFPoT9.20	119	Lim, William W	WeBPoT7.3	12

Lima, Carlos Manuel Gregorio Santos	ThBPoT5.20	42	Liu, Jing	WeBPoT8.5	12
Lima, Raul Gonzalez	ThET19.6	59		WeCT6.4	22
Lima, Sidney	WeBPoT6.23	12		WeET6.1	28
Lin, Bor-Shing	ThFPoT12.21	67		ThGT21.5	78
Lin, Ching-Hui	FrFPoT3.10	110		FrBPoT1.15	85
	FrFPoT3.20	111	Liu, Ming	WeBPoT16.3	16
	FrFPoT3.21	111	Liu, Nan	FrFPoT5.14	114
	FrFPoT3.23	111		FrFPoT5.17	114
Lin, Chin-Hsuan	ThBPoT25.5	52	Liu, Quanquan	ThBPoT18.3	50
Lin, Chin-Teng	FrBPoT14.5	94	Liu, Rui	FrFPoT1.16	107
	FrBPoT14.6	94	Liu, Shan	ThFPoT17.7	70
Lin, Chuang	FrFPoT1.12	107	Liu, Shing-Hong	FrFPoT9.28	120
Lin, Chung-Chih	FrFPoT2.15	108		SaBPoT4.9	138
Lin, Fang-Yu	ThGT8.5	75	Liu, Su	FrBPoT13.7	93
Lin, Feng	ThBPoT5.35	43	Liu, Wei	WeCT17.5	25
Lin, Jeng-Wei	ThFPoT9.13	65	Liu, Weiping	WeAT6.6	2
Lin, Jeremy	ThET10.3	57	Liu, Xiao	WeBPoT3.10	9
Lin, Jing	WeBPoT9.4	13		ThFPoT1.9	60
Lin, K.H	WeBPoT5.14	10	Liu, Xiaoxuan	ThAT10.4	35
Lin, Kang Ping	ThET13.5	58	Liu, Yang	WeBPoT4.6	9
Lin, Lan	WeAT19.5	7	Liu, Yi-Hung	ThBPoT18.3	50
Lin, Meng-Kuan	FrFPoT1.27	107	Liu, Yingjie	SaAT15.3	130
Lin, Monica	ThGT2.4	73	Liu, Yi-Shao	FrFPoT3.20	111
	ThGT2.6	73		FrFPoT3.21	111
Lin, Paige E.	FrBPoT18.2	95	Liu, Yonghong	ThBPoT3.8	41
Lin, Pei-Jung	SaBPoT6.43	143	Liu, Yongjun	FrET21.6	106
Lin, Steven	FrGT10.1	123	Liu, Yu-Hang	FrFPoT4.7	112
Lin, Wen-Yen	FrFPoT1.7	107	Liu, Zhipeng	FrFPoT4.36	113
	FrFPoT1.11	107		SaBPoT2.5	135
	FrFPoT6.8	116	Liu, Zhiqiang	ThAT4.4	33
Lin, Xin-Yu	ThFPoT19.3	71	Liu, Zhiwen	FrGT6.6	122
Lin, Yuan-Pin	WeBPoT3.5	9	Livi, Lorenzo	FrFPoT5.20	115
Lin, Zhiping	WeAT18.4	6	Lizano, José María	WeBPoT1.7	8
	WeBPoT5.13	10		FrBPoT2.18	86
Linares-Sánchez, Luis Javier	WeBPoT6.12	11		FrET3.1	101
Lind Kappel, Simon	WeET20.3	32	Lizarazu, Mikel	ThFPoT11.1	65
	ThBPoT7.1	44	Ljupco, Hadzievski	WeBPoT19.4	17
Lind, Jeffrey	FrAT1.4	79		FrFPoT9.2	118
Lindberg, Eric W	ThDT8.1	53	Lo, Wei-Chen	FrFPoT3.25	111
Lindén, Maria	WeBPoT20.6	17	Locatelli, Davide	SaBPoT1.32	134
Lindig, Cecilia	ThET11.2	58	Loeliger, Hans-Andrea	ThET5.4	56
Ling, Steve	WeBPoT1.12	8	Loeza, Joel, Alfredo	ThBPoT18.11	50
	FrGT11.5	123	Logantha, Sunil Jit	WeAT2.3	1
Lingurar, Marius George	WeAT7.3	3	Logghe, Gerlinde	ThGT6.6	75
	WeAT7.5	3	Logier, Regis	ThFPoT15.5	69
	WeAT7.6	3		FrFPoT1.21	107
Liorni, Ilaria	WeAT10.2	4		FrFPoT5.8	114
	ThBPoT9.15	46		SaAT20.3	132
Liporati, Fabio	SaBPoT6.22	142	Loh, Darrell	WeBPoT1.9	8
Lippert, Sebastian	FrFPoT6.10	116	Lohitnavy, Manupat	ThBPoT9.3	45
Lipping, Tarmo	WeCT5.1	C		ThBPoT9.4	45
	WeCT5.5	22	Lohmann, Chris	ThFPoT17.14	70
Lipsey, Jim	WeCT11.6	24	Lohmüller, Clemens	FrET5.2	101
Lisanby, Sarah	WeET17.4	31	Loiselle, Denis	SaAT9.3	129
Lischke, Julia	ThGT16.3	77	Loizos, Kyle	ThAT2.3	33
Lissel, Alexandra	FrFPoT6.23	117	Loizou, Christos	WeAT15.6	5
	FrFPoT7.4	117		FrBPoT5.13	90
	FrFPoT8.13	118	Lombardi, Carolina	ThET1.4	54
Lithgow, Brian	ThBPoT12.7	47	Lombardi, Prospero	ThDT6.2	53
	FrBPoT1.11	85		ThET1.3	54
Littlejohn, Aaron James	ThBPoT23.4	51		FrET12.6	104
Liu, Bin	ThAT4.4	33	Lombardi, Stefano	FrGT6.1	121
Liu, Botong	WeET8.5	29	Lombardo, Salvatore	SaBPoT2.27	136
Liu, Changchun	ThFPoT2.7	61	Lomonaco, Tommaso	FrGT12.5	124
Liu, Chao	ThFPoT17.7	70	Lonardon, Davide	ThET3.2	55
	ThFPoT17.11	70		FrDT10.2	99
Liu, Dikai	WeBPoT19.1	17	Loncar-Turukalo, Tatjana	FrAT3.5	79
	ThAT8.3	35		FrGT18.1	125
Liu, Fei	WeBPoT18.2	17	Londner, Samuel	FrFPoT2.33	109
Liu, Hao	SaAT1.5	127		FrGT7.2	122
Liu, Hongbin	FrAT12.3	82	Long, Xi	WeAT17.5	6
	SaAT12.6	130		FrGT17.3	124
Liu, Jiang	WeBPoT6.2	11	Long, Zhongjie	SaBPoT5.7	139
	WeCT8.3	23	Longhi, Sauro	SaAT15.2	130
	ThBPoT5.25	43	Longo, Renata	WeET13.1	30
	ThFPoT6.3	63		ThFPoT5.3	62
	ThGT7.6	75		SaBPoT2.38	136
	FrAT7.6	81	Longoni, Valentina	FrFPoT4.23	113
	FrFPoT2.32	109	Lontis, Eugen Romulus	WeET10.1	29
Liu, Jianwei	FrET18.1	105	Loo, Billy W	SaAT6.6	129
			Looi, Thomas	ThFPoT16.3	69
				ThFPoT17.2	70

Lopes Luís, Ana Isabel	FrBPoT3.8	87
López Delis, Alberto	ThAT17.2	37
López, Natalia M	FrBPoT2.8	86
Lopresto, Vanni	WeBPoT9.7	13
Loram, Ian David	WeCT1.5	20
	FrFPoT5.15	114
Lorch, Benedikt	FrBPoT2.26	87
Lord, Stephen	FrDT2.5	98
Losio, Luca	FrFPoT4.21	112
Losiouk, Eleonora	FrET20.5	106
Losito, Onofrio	FrFPoT5.38	116
Lou, Edmond H.	WeCT6.1	22
Louie, Sara	ThBPoT9.2	45
Louis-Dorr, Valerie	WeBPoT4.9	10
	ThET19.2	59
Love, Holley	WeAT12.4	4
Lovell, Nigel H.	WeBPoT24.3	19
	WeCT10.1	23
	WeET2.2	27
	ThAT2.1	33
	ThAT2.2	33
	ThAT16.6	37
	ThBPoT12.3	47
	FrAT8.5	81
	FrBPoT21.5	97
	FrDT2.1	CC
	FrDT2.5	98
Lowery, Arthur James	WeBPoT14.8	15
Lozupone, Graziano Vito	FrET6.2	102
Ltifi, Hela	FrFPoT9.37	120
	FrFPoT9.38	120
	ThET7.5	56
Lu, Cheng	WeBPoT16.2	16
Lu, Daniel	FrET3.4	101
Lu, Hongyang	ThBPoT6.4	44
Lu, Ke	ThBPoT5.5	42
Lu, Ping	WeET19.4	32
Lu, Shen	ThFPoT16.1	69
Lu, Xiaowei	WeCT11.3	24
Lü, Xiaoying	SaAT16.5	131
Lu, Yang	WeBPoT4.7	9
Lu, Yunfeng	ThGT19.6	78
Lu, Zhongkang	FrET6.1	102
	FrET19.6	106
Luaces, Maria	WeET12.2	30
Luca, Chiovato	WeET12.4	30
	ThFPoT22.2	72
Luca, Stijn	ThBPoT19.5	50
Lucarini, Gioia	FrFPoT9.7	119
Lucchi, Julio C.	WeAT13.5	5
Lucchini, Maristella	ThGT1.1	73
	FrBPoT2.26	87
Luckner, Christoph	FrFPoT2.14	108
Lucumi Moreno, Edinson	ThFPoT10.7	65
Lui, Armin	FrAT4.6	80
Lujan, Mikel	FrFPoT3.28	111
Luka, George Said	FrBPoT8.3	91
Lukander, Kristian	FrAT10.4	82
Lumachi, Simonetta	FrBPoT13.3	93
Luna-Munguía, Hiram	WeET11.2	30
Lunardini, Francesca	ThFPoT10.4	65
Luo, Cunjin	WeCT6.4	22
Luo, Jianwen	ThAT15.5	36
	ThFPoT8.5	64
Luo, William	FrFPoT3.3	110
Luo, Yu-Xi	SaBPoT4.26	139
	WeET6.5	28
Luo, Yuxuan	FrBPoT6.8	91
Luoni, Eleonora	FrBPoT5.3	90
Lupi, Giulia	ThET18.6	59
Luther, Stefan	SaBPoT3.16	137
	ThGT5.4	74
Luz, Eduardo	WeCT19.3	26
Lv, Bin	FrBPoT13.11	94
Ly, Quynh Tran	FrET12.4	104
Lydon, Katy	FrFPoT5.17	114
Lye, Weng Kit	WeET2.1	27
Lykissas, Marios	WeBPoT25.9	20
Lymberopoulos, Dimitrios	SaAT10.6	130
Lyu, Yuanyuan	WeET4.1	27
Lyzhko, Ekaterina		

M

M, Manivannan	WeET2.5	27
M. Affandi, Azura	ThBPoT5.33	43
M. Ramdas, Nisha	WeAT16.3	5
Ma, Dongliang	WeAT16.2	5
Ma, Feiqiang	FrBPoT13.8	93
Ma, Heather Ting	ThBPoT5.27	43
	ThET9.6	57
Ma, Jingbo	ThBPoT5.27	43
Ma, Jingchen	FrAT6.5	81
Ma, Lan	ThBPoT2.32	40
Ma, Lin	WeCT19.3	26
Ma, Ou	FrBPoT18.4	95
Ma, Ruiqing	FrAT17.5	83
Ma, SangYong	FrFPoT9.23	119
Ma, Sen	FrET17.3	105
Ma, Xiaolong	ThBPoT2.13	39
Mablekos-Alexiou, Anestis	ThAT9.1	35
Maccione, Alessandro	ThET3.1	55
	ThET3.2	55
	FrDT10.2	99
Macey, Paul M.	FrGT17.4	125
MacGregor, Cameron Andrew	FrBPoT1.11	85
Machado da Silva, José	ThET2.3	54
Machado, Fátima	ThGT18.5	77
Macii, Enrico	SaAT19.3	132
MacKenzie, Kenneth	ThAT7.5	34
Macri, Simone	ThFPoT18.4	71
Mac-Thiong, Jean-Marc	WeBPoT10.5	13
	ThET9.1	57
	ThET9.4	57
Madde, Nageswar	FrET16.3	104
Madhushri, Priyanka	WeCT20.3	26
Madhusudana, Pavan	FrFPoT9.15	119
Madou, Marc	ThBPoT8.5	45
Madrosiya, Akshay	ThBPoT5.18	42
	ThBPoT5.37	43
Maeda, Hiroyuki	FrFPoT5.9	114
Maeda, Kazuho	ThGT21.1	78
	FrET2.3	100
Maeda, Kazuki	ThET11.3	58
Maeda, Mutsuhiro	FrFPoT5.9	114
Maeda, Yoshinobu	SaBPoT6.10	141
Maeda, Yuka	SaBPoT4.11	138
Maehara, Taketoshi	FrFPoT5.29	115
Maenaka, Kazusuke	WeBPoT18.3	17
Maesen, Bart	FrAT8.4	81
	FrGT18.3	125
Maestri, Michelangelo	FrBPoT2.23	87
Magatani, Kazushige	ThFPoT12.1	66
	SaBPoT6.37	143
Magdaleno-Madrigal, Víctor	FrBPoT13.3	93
Magenes, Giovanni	WeAT6.1	C
	WeAT6.4	2
	ThGT1.1	73
	FrET5.1	C
Magierowski, Sebastian	WeET16.4	31
	FrET9.2	103
Magistro, Daniele	FrET2.6	100
Magistroni, Riccardo	ThBPoT5.34	43
Magjarevic, Ratko	ThET13.1	CC
	SaDT14.1	C
	SaDT14.3	147
Maglaveras, Nikolaos	WeAT9.1	C
	WeET5.4	28
	ThAT12.5	36
	FrAT4.4	80
Maglione, Anton Giulio	WeCT10.5	23
Maglogiannis, Ilias	WeBPoT25.6	20
	ThBPoT5.4	42
Magni, Paolo	WeBPoT11.5	14
Magnoni, Paolo	ThFPoT17.16	70
Magosso, Elisa	WeBPoT4.2	9
Magrassi, Lorenzo	ThGT11.4	76
Magrin, Daniele	WeAT8.6	3
Mahadevappa, Manjunatha	ThBPoT13.13	48
	FrBPoT4.2	89
Mahapatra, Chitaranjan	ThGT16.2	76

Maharbiz, Michel	WeBPoT7.5	12	Mallipedi, Rammohan	ThAT3.1	33
	WeBPoT21.2	18	Malosio, Matteo	FrAT10.2	82
	ThAT20.1	38	Malpica, Norberto	FrET19.6	106
	ThGT2.4	73	Man, Hong	ThBPoT5.28	43
	ThGT2.6	73	Mañanas, Miquel Angel	FrGT5.3	121
	FrAT16.1	CC	Manawadu, Udara	ThBPoT6.3	44
	FrFPoT3.29	111	Mancardi, Gianluigi	ThFPoT13.1	67
	FrGT8.4	122	Mancarella, Valentina	ThFPoT5.3	62
Mahdi, Sammy	FrFPoT9.16	119	Manchanda, Rohit	ThGT16.1	C
	FrFPoT9.17	119		ThGT16.2	76
Mahdiani, Shadi	FrBPoT1.9	85		ThGT16.6	77
	FrBPoT1.10	85		SaAT16.6	131
Mahé, Guillaume	FrGT2.3	120	Mancini, Alyssa	FrFPoT2.19	109
Maheu, Véronique	ThFPoT8.3	64	Mancini, Marcello	ThBPoT5.24	43
Mahmoodin, Zulkifli	ThFPoT14.8	68	Mancini, Matteo	ThBPoT2.3	39
Mahmud, Mufti	ThFPoT13.11	68		FrDT9.4	99
	FrDT10.1	99		FrET15.4	104
	FrDT10.1	C	Mandal, Mahitosh	FrBPoT4.2	89
Mahoor, Mohammad H.	FrAT3.2	79	Mandal, Mrinal	ThET7.2	56
Mahvash Mohammadi, Sara	ThFPoT14.11	69		ThET7.5	56
Mahvash, Mohsen	WeAT9.6	3	Mandal, Subhamoy	WeBPoT5.15	10
Maier, Andreas	WeET7.2	28		ThBPoT21.1	51
Maier, Mathias	ThFPoT17.14	70	Mandge, Darshan	ThGT16.6	77
Mailley, Pascal	FrGT8.5	122	Mandic, Danilo	WeCT20.1	26
Mainardi, Luca	WeAT18.2	6		WeET20.3	32
	WeAT18.6	6	Mandraccia, Sergio	FrFPoT4.21	112
	WeBPoT10.4	13		SaBPoT6.22	142
	ThGT18.1	C	Manffra, Elisangela F.	FrBPoT20.7	96
	ThGT19.1	77	Manfred, Rauh	FrET5.2	101
	FrBPoT4.17	89	Manfredi, Claudia	FrFPoT2.3	108
Mainetti, Luca	ThFPoT18.4	71		SaBPoT1.6	133
Maiolo, Luca	ThBPoT8.1	45	Mangin, Jean-François	WeAT19.6	7
Maiti, Aniruddha	FrBPoT9.5	92		FrFPoT2.17	109
Maji, Debapriya	ThBPoT5.21	42		FrFPoT9.26	119
Maji, Debnath	FrAT20.4	84	Manian, Vidya	SaBPoT1.33	134
Major, Kristof	FrDT2.1	98		SaBPoT1.34	134
Major, Paul	ThBPoT5.32	43	Manis, George	ThBPoT11.5	47
Major, Vincent	ThGT10.1	76		SaBPoT4.20	138
Mak, Peng Un	ThFPoT14.4	68	Manivannan, Nadarajah	FrFPoT3.4	110
Mak, Pui-In	ThFPoT14.4	68	Maniyeri, Jayachandran	WeBPoT8.7	12
Makaram, Navaneethakrishna	SaAT5.5	128	Mankodiya, Kunal	WeBPoT15.5	15
Makarov, Sergey	ThBPoT9.2	45	Mann, Collette	WeBPoT14.8	15
	FrFPoT9.36	120		WeET19.2	32
	SaAT7.1	129	Mann, Kaylee	ThGT2.4	73
Makeig, Scott	ThET19.1	59	Mannen, Hiromi	FrBPoT19.4	96
	ThFPoT1.5	60	Mannini, Andrea	ThGT4.4	74
	FrET10.2	103	Manogue, Michael	WeAT21.5	7
	FrGT5.5	121	Manohar, Srirang	SaDT6.3	145
Mäkelä, Niko	WeAT10.4	4	Manoloakos, Elias	FrBPoT9.6	92
Makepeace, Robert William	ThGT4.1	74	Manousos, Dimitris	ThBPoT24.4	52
Makhortykh, Sergey	WeET4.1	27	Manousou, Pinelopi	ThBPoT5.38	43
Maki, Hayato	ThBPoT2.14	39	Mansoor, Awais	WeAT7.5	3
Mäkikallio, Timo	ThAT5.3	34	Mansor, Wahidah	ThBPoT2.26	40
Makikawa, Masaaki	SaBPoT3.23	137		ThFPoT14.8	68
Makino, Shoji	WeBPoT15.6	16	Mansouri, Behzad	ThBPoT12.7	47
	WeET3.2	27	Manti, Mariangela	ThBPoT19.2	50
	WeET3.3	27		ThBPoT19.3	50
Makki Abadi, Bahador	ThET5.5	56	Mantilla, Juan	FrET19.2	105
Makki, Saeid	ThFPoT14.5	68	Mantini, Dante	WeBPoT5.6	10
Makowiec, Danuta	ThET4.5	55	Manton, Jonathan	FrBPoT9.9	92
	SaBPoT1.3	133		SaBPoT6.29	142
Makram, Abram	SaAT7.3	129	Mantovan, Roberto	FrET6.2	102
Maksuti, Elira	SaBPoT4.27	139	Mao, Ying	WeBPoT13.8	15
	SaBPoT4.29	139	Maqbool, Hafiz Farhan	ThFPoT15.3	69
Malafeev, Alexander	ThDT1.3	52	Marabini, Roberto	WeET19.6	32
Maldonado, Berenice	ThBPoT18.4	50	Maranesi, Elvira	FrAT1.1	79
Malekmohammadi, Alireza	WeET3.4	27		FrBPoT2.13	86
Malerba, Mario	WeBPoT9.3	13		FrBPoT2.14	86
	FrDT10.2	99		FrBPoT2.15	86
Malerba, Paolo	WeCT10.5	23	Maras, Dimitrios	FrBPoT5.2	90
Malhotra, Atul	ThGT1.4	73	Marasco, Silvana	FrAT8.5	81
Malihi, Mahan	FrBPoT3.14	88	Marcato, Daniel	FrGT19.4	125
Malik, Aamir Saeed	WeCT19.6	26	Marceglia, Sara	FrAT3.1	79
	ThBPoT5.33	43		FrAT3.1	CC
	ThFPoT1.6	60		FrAT3.6	80
	ThFPoT2.5	61		SaBPoT1.4	133
	FrBPoT2.7	86	Marcellucci, Martina	WeBPoT13.2	14
	FrGT11.4	123	Marche, Pauline	FrGT2.3	120
Maliye, Saili	ThBPoT9.2	45	Marchese, Nicola	ThFPoT17.4	70
Maller, Jerome	WeBPoT14.8	15			
Malliaras, George	FrGT8.5	122			

Marchi, Andrea	WeAT13.3	5	Martinsen, Ørjan G	ThBPoT2.8	39
	WeCT18.1	25		FrAT16.4	83
	WeET9.3	29		FrGT9.1	CC
	WeET9.5	29		FrGT9.4	123
	ThET18.1	59	Martinsen, Tormod	FrAT16.4	83
Marconi, Michele	ThFPoT24.2	73	Marturano, Alessandro	ThBPoT17.4	50
Maréchal, Luc	WeBPoT9.8	13	Marukame, Takao	SaBPoT1.26	134
Margalit, Eyal	SaAT19.1	132	Maruyama, Osamu	WeAT12.3	4
Margraf, Nils	WeBPoT4.8	10		ThBPoT10.1	46
Maria Joseph, Felix Orlando	ThBPoT22.3	51		ThFPoT4.1	62
Mariani, Davide	ThET1.4	54		FrBPoT7.3	91
Mariani, Sara	WeET18.1	31		FrFPoT5.28	115
	SaAT5.2	128	Marzbanrad, Faezeh	SaAT5.1	128
Marias, Kostas	WeBPoT25.7	20	Marziliano, Pina	ThBPoT5.11	42
	ThBPoT24.4	52	Marzorati, Mauro	ThBPoT18.7	50
Marimon, Xavier	SaBPoT2.29	136	Masaki, Kana	WeBPoT18.3	17
Marin, Marie-France	SaAT3.2	127	Masaki, Takeo	FrBPoT8.4	91
Marinazzo, Daniele	ThET18.3	59	Mascalchi, Mario	ThFPoT5.4	62
	ThGT17.5	77		FrBPoT6.3	90
	FrBPoT2.10	86	Mascetti, Gabriele	ThDT6.4	53
Marinis, Thomas	SaAT3.4	127	Masè, Michela	FrBPoT4.5	89
Marino, Attilio	WeET1.4	26	Masia, Lorenzo	WeBPoT16.5	16
Mariottini, Gian-Luca	ThFPoT20.2	71		ThBPoT18.8	50
Marjukka, Nurkkala	FrFPoT8.18	118		ThBPoT18.9	50
Mark, Andrew G.	SaBPoT5.35	141		FrBPoT17.3	95
Mark, Roger	WeBPoT2.5	8	Maška, Martin	SaAT19.4	132
Markiewicz, Tomasz	FrBPoT4.4	89	Mason, Ralph P.	ThBPoT9.9	46
Marko, Christiane	SaDT7.3	146	Masood, Ammara	WeBPoT6.18	11
Markopoulos, Panos	FrAT10.6	82	Massaiu, Ilaria	WeBPoT11.5	14
Markovic, Marko	FrET11.6	103	Massaroni, Carlo	WeBPoT22.1	18
	SaBPoT6.25	142		WeBPoT22.2	18
Marmarelis, Vasilis	ThET11.4	58		WeBPoT22.3	18
Marmor, Meir	ThGT2.6	73		WeCT13.2	24
Marnane, Liam	ThAT4.6	33		SaAT6.2	128
	FrAT18.6	84	Massaroppe, Lucas	ThBPoT3.1	40
	FrBPoT1.4	84	Massicotte, Daniel	ThFPoT8.3	64
	FrBPoT2.2	86	Massobrio, Paolo	ThBPoT2.28	40
Marom, Gil	WeAT12.6	4		ThBPoT13.3	47
Maroulis, Dimitris	ThAT7.2	34		ThFPoT14.3	68
Marque, Catherine	WeET17.2	31	Massone, Antonino	FrFPoT4.21	112
	ThBPoT3.4	41		SaBPoT6.22	142
	ThFPoT2.10	61	Massot, Bertrand	ThFPoT20.4	71
Marques, Isabel	SaAT19.6	132	Mastinu, Enzo	WeET11.5	30
Marques, Jorge	ThAT19.2	38	Mastorci, Francesca	WeAT8.6	3
	FrET19.5	105	Mastroianni, Timothy	WeAT9.2	3
	FrGT6.2	122		FrBPoT19.3	96
Marrazzo, Livia	FrFPoT5.20	115	Mastropietro, Alfonso	FrBPoT4.8	89
Marre, Ilaria	ThFPoT13.1	67	Masuda, Kohji	WeBPoT24.6	20
Marrega, Luiz Henrique Giovanini	FrBPoT20.7	96		FrFPoT2.5	108
Marsden, Alison	WeBPoT5.8	10	Masuda, Yuta	SaBPoT1.43	135
Marsella, Pasquale	WeCT10.5	23	Masutani, Ryunosuke	SaAT8.1	129
Marshall, Randolph S	ThGT19.4	78	Matejak, Marek	WeCT2.6	21
Marsousi, Mahdi	WeET7.1	28		ThBPoT23.1	51
Martel, Richard	ThDT16.2	54		ThBPoT23.2	51
Martella, Daniele	SaBPoT5.35	141	Mateos-Timoneda, Miguel Angel	WeCT16.4	25
Martelli, Dario	ThGT9.1	75	Mateus, Juan	ThFPoT23.4	73
	ThGT9.2	76	Mathault, Jessy	WeET16.2	31
Martens, Harald	ThGT4.6	74	Mathews, Edward Henry	FrFPoT9.35	120
Martens, Jean-Bernard	FrAT10.6	82	Mathews, Marc John	FrFPoT9.35	120
Martens, Penny	ThAT16.6	37	Mathieu, Romain	ThAT6.5	34
Martin, Alejandro	ThFPoT2.8	61	Mathissen, Marcel	FrGT12.4	124
Martin, Nahrwold	WeBPoT4.8	10	Matic, Vladimir	WeCT4.1	21
Martínez, Juan Pablo	WeAT18.6	6		FrAT18.5	83
Martínez, Mar	ThBPoT10.8	46		SaBPoT1.27	134
Martínez-García, María Sofia	WeBPoT20.11	18	Matrone, Giulia	WeAT6.4	2
Martínez-Licona, Fabiola	ThET13.1	58	Matsubara, Miku	ThFPoT12.13	66
Martínez-Martí, Fernando	WeBPoT20.11	18	Matsubara, Tomoko	ThAT19.4	38
Martínez-Millana, Antonio	WeET12.3	30	Matsuda, Tetsuya	SaBPoT4.22	139
	SaAT20.4	132	Matsuda, Yusuke	SaBPoT7.14	144
Martínez-Romero, Álvaro	WeET12.3	30	Matsuhisa, Naoji	ThBPoT7.4	44
Martini, Maria	FrET20.4	106	Matsui, Takemi	FrBPoT1.18	85
Martini, Nicola	FrGT7.6	122		FrGT12.2	123
Martini, Romeo	FrGT2.4	120	Matsukawa, Mami	FrFPoT5.13	114
Martinoia, Sergio	ThBPoT2.28	40		SaBPoT4.16	138
	ThFPoT14.3	68		SaBPoT4.17	138
	FrDT10.3	99	Matsumori, Harumi	SaBPoT5.5	139
Martins, Frederico	ThET2.3	54	Matsumoto, Akira	ThBPoT7.5	44
Martins, Nelson	ThBPoT5.14	42	Matsumoto, Yoshio	ThAT8.4	35
Martins, Thiago de Castro	ThET19.5	59	Matsumoto, Yuya	WeAT1.5	1
				SaBPoT1.45	135
			Matsumura, Kenta	SaBPoT1.21	134

Matsunaga, Daichi	FrBPoT3.1	87	Meena, Yogesh Kumar	WeBPoT1.10	8
Matsuno, Maka	SaAT10.2	130	Meeth, Katrina	FrFPoT3.11	110
Matsuo, Masahiro	SaAT20.5	132	Meffin, Hamish	FrGT8.1	122
Matsuo, Yoshikazu	ThET9.3	57	Mehnert, Ulrich	WeBPoT5.6	10
Matsuoka, Hiroto	FrBPoT19.4	96	Mehrmohammadi, Mohammad	ThET6.5	56
Matsushima, Eisuke	FrFPoT5.29	115	Mehta, Rutej	SaAT7.2	129
Matsushita, Akira	WeBPoT19.3	17	Mei, Shenshen	FrBPoT3.20	88
Matsushita, Kojiro	ThET20.6	60	Meier, Christophe	ThBPoT6.6	44
Matsuura, Masato	FrFPoT5.29	115	Meigas, Kalju	FrBPoT8.1	91
Mattaliano, Paola	ThET1.4	54	Meijer, Kenneth	SaBPoT5.1	139
Mattausch, Oliver	FrBPoT5.11	90	Meinel, Andreas	ThGT3.5	74
Mattei, Alessia	WeCT13.2	24	Meinhold, Waiman	ThBPoT18.11	50
Mattei, Eugenio	FrDT9.4	99	Mejía Ávila, Mayra	ThFPoT1.8	60
	FrET15.4	104	Mejía-Rodríguez, Aldo Rodrigo	ThGT6.3	75
Matthew, Robert, Peter	ThBPoT18.11	50	Melai, Bernardo	FrFPoT3.1	110
Mattia, Donatella	WeET17.6	31	Meland, Anders	SaBPoT4.23	139
	ThET4.3	55	Melchor, Angel	FrAT9.2	81
	ThGT17.2	77	Melde, Kai	SaBPoT5.35	141
	FrBPoT3.17	88	Melia, Umberto Sergio Pio	WeCT18.5	25
Mattie, Johanne	ThFPoT21.5	72	Melillo, Paolo	FrGT20.1	125
Mattoli, Virgilio	WeET1.4	26	Mellenthin, Michelle	ThET19.6	59
Mattos, Leonardo	ThFPoT16.2	69	Mellone, Sabato	ThFPoT22.3	72
	ThFPoT17.17	70		ThFPoT22.4	72
Maturana, Matias	FrFPoT4.14	112		FrDT2.4	98
	FrGT8.1	122	Meloni, Gianluca	FrAT3.3	79
Mauri, Piercarlo	ThBPoT2.3	39	Memedi, Mevludin	FrFPoT6.5	116
Maxwell, Karen	FrGT9.2	123	Menai, Mehdi	ThDT2.2	52
Mayer, Andrew	ThGT19.2	77	Menara, Tommaso	ThFPoT9.7	64
Mayor Torres, Juan Manuel	SaAT17.5	131	Menciassi, Arianna	WeAT16.6	6
Mayora, Oscar	WeCT9.1	23		WeBPoT22.9	19
Mayr, Martin	ThFPoT11.2	65		ThBPoT19.5	50
Mazumder, Satyaki	ThFPoT14.10	68		FrBPoT22.5	97
Mazzetto, Marcelo	FrFPoT5.42	116		SaAT9.1	CC
Mazzini, Giuliano	WeBPoT11.5	14	Mendes, Diana	ThAT12.3	36
Mazzolai, Barbara	WeET1.4	26		FrBPoT20.2	96
Mazzoleni, Stefano	SaBPoT5.2	139	Mendes, Luis	FrAT4.4	80
Mazzotti, Matteo	FrET20.4	106		FrBPoT1.6	85
McAfee, Jacob S.	ThFPoT17.8	70	Mendes, Paulo M.	ThBPoT6.11	44
McBride, Simon	SaDT5.1	145	Mendes, Romeu	WeBPoT22.7	19
McCall, Corey	FrBPoT8.2	91	Mendez, Martin Oswaldo	ThET1.1	54
McCallum, Grant	FrFPoT4.26	113		ThET1.2	54
McCandless, Cyrus	FrBPoT19.3	96		ThFPoT1.2	60
McCann, Evan	FrBPoT18.4	95		ThFPoT2.8	61
McCann, Hugh	WeBPoT4.3	9		FrBPoT1.8	85
McCarthy, Chris	ThBPoT12.8	47	Mendez-Castillo, Juan Jose	FrET16.6	104
McCarthy, Ian	FrBPoT13.5	93	Mendoza, Marco	WeBPoT17.3	17
McClain, Lauren M.	FrET17.6	105		ThBPoT18.4	50
McClintock, Peter V. E.	FrGT2.2	120	Menegatti, Erica	ThDT6.3	53
McClintock, Shawn	WeET17.4	31	Menezes-Reis, Rafael	WeBPoT6.4	11
McCloughan, Lucy	FrBPoT3.30	88	Meng, Ellis	FrET10.4	103
McConley, Marc	SaAT3.5	127	Meng, Long	FrAT20.6	84
McCormick, Lynne	SaAT7.4	129	Meng, Max Q.-H.	FrBPoT6.1	90
McCullagh, Paul	ThFPoT21.7	72	Mengarelli, Alessandro	FrBPoT2.14	86
McCulloch, Andrew	WeBPoT5.8	10		FrBPoT2.15	86
McDaniel, Jeffrey	FrDT16.4	100	Menicucci, Danilo	WeAT8.6	3
McDermott, Hugh	FrBPoT24.1	97		WeAT17.4	6
McDuff, Daniel Jonathan	FrBPoT7.1	91		WeBPoT3.11	9
	FrET12.5	104	Menolotto, Matteo	ThBPoT6.7	44
	FrFPoT5.18	115	Menon, Carlo	ThFPoT12.24	67
McEwan, Alistair	SaBPoT8.3	144		FrET12.1	104
McGloughlin, Tim	FrFPoT9.21	119	Menon, Radhika	WeBPoT1.4	7
McGregor, Carolyn	SaDT2.2	145	Menotti, David	ThGT5.4	74
	SaDT2.3	145	Mercante, Oriano	FrAT1.1	79
McGuinness Abdollahi, Zahra	ThGT2.3	73		FrBPoT2.13	86
McHill, Andrew	FrBPoT20.1	96	Mercier, Patrick P.	WeCT20.4	26
McHugh, Peter	ThET11.6	58		FrET10.2	103
Mckeage, James William	FrET21.2	106	Mereacre, Alexandru	FrET15.1	104
McKendry, Rachel	FrFPoT6.24	117	Merilahti, Juho Markus	FrET2.2	100
McKenzie, David	WeBPoT7.3	12	Merino, Manuel	FrBPoT15.11	95
McKinstry, Brian	FrBPoT3.30	88	Merla, Arcangelo	SaBPoT2.27	136
McLaughlin, James	WeBPoT20.2	17	Merla, Caterina	WeBPoT9.7	13
McMahon, Richard	WeAT12.4	4	Merlet, Isabelle	WeBPoT3.6	9
McManus, Michael	ThFPoT9.9	64		ThFPoT14.12	69
McNeil, Andrew	SaAT7.4	129		FrAT5.5	80
McNeill, Peter Malcolm	FrBPoT24.1	97		FrET4.4	101
McNelly, Ashley	FrFPoT5.10	114	Merletti, Roberto	ThET5.6	56
Md Ali, Sawal Hamid	FrBPoT3.27	88	Mermigkas, Panagiotis	FrFPoT3.12	110
Meaney, Paul	SaBPoT2.25	136	Mervaala, Esa	FrFPoT5.24	115
Meani, Alessandro	SaBPoT2.9	135	Mesbah, Mostefa	FrAT17.2	83
Medina, Rubén	FrET19.2	105	Mesch, Martin	FrBPoT7.6	91
	FrFPoT7.2	117	Meskinfam, Masoumeh	WeCT16.6	25

Mestha, Lalit, K.	WeET7.6	29	Miller, Robyn	ThAT18.2	37
	FrBPoT12.6	93		ThGT19.2	77
	FrET1.1	CC		FrGT19.1	125
Mestre, Tiago	SaBPoT6.32	142	Mills, James	ThAT15.4	36
Methaneethorn, Janthima	ThBPoT9.3	45	Milne, Elizabeth	WeCT17.5	25
	ThBPoT9.4	45	Milosevic, Bojan	ThBPoT7.8	45
Metsavaht, Leonardo	ThBPoT2.23	40	Milutinovic, Dejan	FrAT10.1	82
	SaBPoT1.18	134	Min, James	WeET6.5	28
Metsomaa, Johanna	WeAT10.4	4	Min, Joongkee	SaBPoT6.3	141
Metzner, Guilherme A.	WeBPoT6.4	11	Min, Mart	ThBPoT2.17	39
Meyer, Christian	WeAT20.2	7	Min, Xiaoyi	FrAT16.3	83
Mezzadri Centeno, Tania	ThAT6.4	34	Minami, Hiroshi	SaBPoT7.7	143
Mheich, Ahmad	FrAT5.5	80	Minamisawa, Susumu	ThFPoT10.1	65
Miao, Fen	FrAT17.5	83	Minas, George	FrBPoT5.13	90
Mica, Eric, John	ThBPoT18.11	50	Mindubaev, Eduard	SaBPoT8.2	144
Micera, Silvestro	ThBPoT14.1	48	Minett, James	ThBPoT2.32	40
	ThET8.1	CC	Ming, Dong	WeBPoT17.2	17
	ThET8.2	56		ThGT3.6	74
	ThGT9.1	75	Minguez, Javier	WeBPoT1.8	39
	ThGT9.1	C	Miniussi, Carlo	ThBPoT2.3	8
	ThGT9.2	76	Minnaar, Nick	FrBPoT17.1	95
	FrBPoT17.3	95	Mino, Hiroyuki	FrFPoT4.9	112
	FrET10.6	103	Minoshima, Wataru	WeCT5.6	22
	FrET15.2	104		SaBPoT1.36	134
Michael, Andrew	ThFPoT5.2	62		SaBPoT6.2	141
Michael, Peter	ThFPoT12.4	66	Mion, Lorraine	ThET3.3	55
	SaBPoT6.40	143	Mion, Luca	FrDT8.2	99
Michalis, Lampros	WeBPoT12.5	14	Miosso, Cristiano	ThBPoT1.3	38
	FrAT6.6	81	Miraftab, M.	WeBPoT13.3	14
	FrBPoT12.1	93	Miranda, Pedro	ThAT15.1	36
	FrBPoT12.2	93		FrBPoT23.1	97
Micheau, Philippe	WeCT13.3	24		FrBPoT23.2	97
Michel, Christoph	ThGT17.4	77	Miranda, Pedro Cavaleiro	FrBPoT24.5	98
Michela, Di Girolamo	FrBPoT2.19	86		FrFPoT4.8	112
Micheloyannis, Sifis	FrGT4.5	121	Mirbagheri, Alireza	ThBPoT20.2	51
Michetti, Jérôme	SaAT6.5	129	Mirbagheri, Mehdi	ThFPoT12.32	67
Micoli, Giuseppina	WeBPoT11.5	14	Mirkovic, Bojana	SaBPoT6.31	142
Mideksa, Kidist Gebremariam	WeBPoT4.8	10	Mirmohamadsadeghi, Leila	WeBPoT2.8	8
	ThFPoT5.10	62	Miró, Rafael	FrBPoT23.3	97
	ThFPoT5.13	63	Mirzaei, Hadis	FrBPoT4.3	89
	FrBPoT3.29	88		SaAT19.5	132
	SaAT18.5	132	Mischi, Massimo	WeAT8.2	3
Mielke, Matthias	ThFPoT21.1	71		FrAT18.3	83
Mieloszyk, Rebecca	WeCT13.1	24		FrBPoT1.1	84
	WeCT13.4	24		FrFPoT4.41	113
Mieno, Hiroshi	ThBPoT5.13	42		SaBPoT1.37	134
Mietke, Alexander	WeET1.3	26	Mishima, Norio	FrBPoT8.4	91
Migeotte, Pierre-François	FrET12.3	104	Mishra, Anup Kumar	WeAT8.5	3
Migliorini, Matteo	WeET18.1	31	Mishra, Sameer	SaAT21.5	133
	ThET1.1	54	Misra, Sarthak	ThFPoT17.6	70
Mignani, Renzo	ThBPoT5.34	43	Mitache, Andrei	WeBPoT23.3	19
Mignon, Paul	WeCT6.2	22	Mitchell, Jason	ThAT9.2	35
Miguel, Jose A.	ThBPoT10.8	46	Mitharwal, Rajendra	ThET19.3	59
Mihailidis, Alex	ThGT4.3	74	Mitola, Stefania	WeBPoT6.14	11
Mihalef, Viorel	WeBPoT12.3	14	Mitra, Pabitra	ThBPoT5.21	42
Mijatovic, Gorana	FrAT3.5	79	Mitra, Sunanda	FrFPoT2.7	108
Mika, Barbara	ThFPoT1.11	60	Mitre, Daniel	FrFPoT6.11	116
Mikhno, Arthur	WeET19.2	32	Mitrou, Michalis	FrBPoT5.6	90
Miki, Norihisa	WeBPoT20.1	17	Mitsis, Georgios D.	WeCT19.1	CC
	ThBPoT7.2	44		WeCT19.2	26
	FrAT12.5	83		WeET4.1	C
	FrAT20.2	84		WeET4.6	27
	FrAT20.3	84		ThBPoT9.13	46
Mikkonen, Jarno Eelis	ThFPoT14.1	68	Mitsui, Kazuyuki	FrFPoT5.9	114
Miklody, Daniel	WeBPoT4.10	10	Mitsukura, Yasue	WeAT5.6	2
Mikola, Annika	WeCT5.5	22	Mittaz Hager, Anne-Gabrielle	ThBPoT14.2	48
Mikut, Ralf	FrGT19.4	125	Miura, Hidekazu	WeBPoT23.1	19
Milad, Mohammed	SaAT3.2	127	Miura, Satoshi	WeAT1.5	1
Miled, Amine	WeET16.2	31	Miwakeichi, Fumikazu	SaBPoT2.33	136
Miletic, Marjan	ThFPoT11.1	65	Miyahara, Yuji	ThBPoT7.5	44
Milloli, Giulia	ThET1.2	54	Miyajima, Miho	FrFPoT5.29	115
	FrBPoT1.8	85	Miyajima, Saori	FrBPoT16.4	95
Millán, José del R.	WeBPoT15.16	16	Miyake, Jun	ThBPoT16.4	49
	WeBPoT15.17	16	Miyakoshi, Makoto	ThET19.1	59
	WeCT3.1	CC		FrGT5.5	121
	ThAT3.1	C	Miyashita, Tomoyuki	ThFPoT16.1	69
	ThAT3.3	33	Miyauchi, Masaharu	SaBPoT1.35	134
	SaBPoT6.44	143	Miyazaki, Akane	FrBPoT14.7	94
Miller, David	ThFPoT14.7	68	Miyazaki, Daisuke	SaAT8.1	129
Miller, Michael	ThBPoT5.27	43	Miyazawa, Shinya	WeBPoT24.6	20
			Mizeva, Irina	FrGT2.6	120

Mizoe, Genki	FrET3.5	101	Monti, Serena	ThBPoT5.24	43
Mizoguchi, Hiroshi	ThBPoT18.5	50	Monticone, Marco	WeAT11.3	4
	ThFPoT15.8	69		FrET11.5	103
Mizumoto, Ryota	FrAT10.5	82		FrFPoT4.23	113
	SaBPoT5.11	140	Montin, Eros	WeBPoT10.4	13
Mizuno, Fumio	FrFPoT8.10	118		FrBPoT4.17	89
Mizuno, Osamu	ThAT4.3	33	Montini Ballarin, Florencia	ThBPoT16.3	49
	FrFPoT1.25	107	Montoya, Yesid	FrBPoT22.4	97
	FrFPoT1.30	108	Mon-Williams, Mark	WeAT21.5	7
	SaBPoT3.26	137	Moon, Jon	FrFPoT6.26	117
Mizuno, Toshihide	SaBPoT4.8	138		SaDT8.1	146
Mizutani, Koichi	SaBPoT4.11	138		SaDT8.1	C
Młyńczak, Marcel	ThBPoT2.22	40	Moon, Seong Yong	FrFPoT2.30	109
Mo, Lingfei	ThFPoT22.9	72	Moon, Young Lae	SaDT1.4	145
	SaAT15.3	130	Mooney, Marc	ThGT3.4	74
Mo, Xiaolong	FrFPoT5.1	114	Mooney, Andrew	WeBPoT20.2	17
Moccia, Sara	SaBPoT2.36	136	Mooney, Rachael	ThAT15.3	36
Moche, Michael	ThAT7.6	34	Moore, Brian Cecil Joseph	FrAT4.5	80
Mochizuki, Takashi	WeBPoT24.6	20	Mopuri, Suresh	ThGT18.2	77
Modak, Ashin	FrET21.3	106	Mora Calderón, Francisco Adolfo	SaDT14.2	147
	FrET21.4	106	Mora, Gabriele	WeET9.3	29
Moeller, Knut	ThGT10.3	76	Mora, Niccolo'	FrBPoT3.15	88
Moglia, Andrea	ThFPoT24.2	73	Moradi, Arash	FrET9.4	103
Mohaghegh, Hoda	ThFPoT3.3	61	Moradi, Parsa	FrBPoT3.14	88
Mohajer, Bahram	ThFPoT5.12	63	Morais, João	ThAT12.3	36
Mohamad Hanif, Noor Hazrin Hany	SaAT12.4	130		FrBPoT20.2	96
Mohamad, Noor Bariah	ThFPoT14.8	68	Moraitis, Nektarios	ThAT16.4	37
Mohammadi, Ali	ThGT20.1	78		FrBPoT5.2	90
Mohammadi, Meelad	ThBPoT2.20	40	Morak, Jürgen Markus	FrBPoT21.4	97
	ThFPoT11.8	66	Morales, José Manuel	WeCT7.6	22
Mohammed, Ameer	WeCT5.4	22	Morales, Ricardo, Ricardo	WeBPoT19.4	17
Mohan, Anand	WeBPoT14.8	15		FrFPoT9.1	118
Mohanarangam, Krithikaa	ThAT3.1	33	Morán, Alejandra A.	SaAT9.5	130
Mohd Radzol, Afaf Rozan	ThBPoT2.26	40	Moran, James	SaAT3.4	127
Mohebbi, Ali	WeBPoT3.13	9		SaAT3.5	127
Mohktar, Mas Sahidayana	ThBPoT8.5	45		SaAT3.6	128
Möhler, Werner	FrGT12.4	124	Moran, Kieran	WeET8.3	29
Mohr, Kieran	SaBPoT2.13	135	Morana Roccasalvo, Iolanda	FrET10.6	103
Mohseni, Pedram	WeET15.1	CC	Morando, Matteo	ThET10.5	57
	WeET15.5	31	Morasso, Pietro	WeCT1.1	20
	ThGT3.3	74		WeCT1.4	20
	FrAT20.4	84		ThBPoT14.6	48
	FrET9.1	103		SaBPoT6.41	143
	FrET9.1	CC	Mortal, David	WeCT7.6	22
Mohsenin, Tinoosh	FrET9.3	103		WeET7.4	28
Moirogiorgou, Konstantina	ThFPoT9.11	65		ThBPoT5.26	43
Mok, Vincent CT	SaAT7.6	129		ThFPoT5.5	62
Mokhtari, Ghassem	ThFPoT22.7	72		ThFPoT5.8	62
Molavi, Behnam	FrBPoT3.10	87	Morbiducci, Umberto	ThBPoT10.9	46
Moliadze, Vera	WeET4.1	27	Moreira, Dilvan	ThFPoT23.4	73
Molina, Alberto	FrBPoT15.11	95	Moreira, Gladston Juliano Prates	ThGT5.4	74
Molina, Rene	FrFPoT4.32	113	Moreira, Hélder	FrBPoT4.7	89
	FrFPoT4.33	113	Moreira, Pedro	ThFPoT17.6	70
Molina-Molina, Alejandro	WeBPoT20.11	18	Moreira, Tiago	SaBPoT4.19	138
Molinari Tosatti, Lorenzo	ThFPoT17.16	70	Morelli, Luca	ThFPoT24.1	73
	FrAT10.2	82	Morelli, Maria Sole	FrBPoT2.23	87
Molinaro, Nicola	FrET3.1	101	Moret-Bonillo, Vicente	ThFPoT11.9	66
Molteni, Erika	ThBPoT14.9	49	Morey, Gautam	FrET1.1	100
	ThFPoT12.5	66	Morgado, Miguel	SaAT19.6	132
	FrBPoT13.10	94	Morgera, Salvatore Domenic	ThAT2.1	CC
Momose, Keiko	SaBPoT6.9	141		ThAT2.6	33
Mona, Soliman	ThFPoT4.3	62	Mori, Susumu	ThBPoT5.27	43
Monacizzo, Simone	WeAT18.6	6	Moriconi, Stefano	ThFPoT3.5	61
Monaco, Vito	ThAT8.1	CC		ThGT6.2	75
	ThAT8.5	35		ThGT6.6	75
	ThGT9.1	75		FrAT4.3	80
	ThGT9.2	76	Moriguchi, Yoshiya	ThFPoT5.7	62
Monfaredi, Reza	ThBPoT20.3	51	Morimont, Philippe	SaBPoT4.15	138
Monge, Jesús	FrBPoT3.30	88	Morimoto, Hiroki	WeCT1.4	20
Monleon, Daniel	WeCT7.6	22	Morinaga, Hiroki	SaAT8.1	129
Monsalve, Ana	WeAT9.5	3	Morishita, Soichiro	ThAT9.4	35
Montagnani, Federico	ThAT9.3	35		ThFPoT15.2	69
Montano Gella, Luis	WeBPoT1.7	8		ThFPoT15.9	69
	FrBPoT2.18	86	Morishita, Wataru	FrFPoT1.20	107
Montano, Nicola	WeAT13.1	4	Morita, Shinya	WeBPoT20.1	17
Montecchia, Francesco	SaBPoT4.7	138	Morita, Yusuke	SaBPoT5.29	140
Montefusco, Francesco	WeBPoT11.4	14	Moriya, Hiroki	WeBPoT15.15	16
Monteiro, Eriksson	WeBPoT25.3	20	Moro, Andrea	ThGT11.4	76
Montembault, Alexandra	ThAT16.5	37	Morocho, Villie	FrFPoT7.2	117
Montesano, Luis	WeBPoT1.8	8	Moroni, Lorenzo	WeCT16.1	25
Montgomery, Roger	FrFPoT8.8	118	Moroso, Danilo	FrFPoT5.25	115
	FrFPoT8.9	118			

Morrell, Michael	FrET21.6	106	Mura, Marco	WeBPoT22.9	19
Morrone, Giovanni	ThGT16.1	76	Murai, Ryosuke	SaBPoT7.6	143
Morrone, Michelangelo	WeBPoT22.3	18	Muraja-Murro, Anu	FrFPoT5.24	115
Morucci, Gabriele	SaAT19.2	132	Murakami, Akiho	FrBPoT2.9	86
Morvidone, Marcela Alejandra	FrBPoT4.16	89	Murakami, Akiko	FrFPoT6.14	117
Moscato, Francesco	SaDT7.3	146		FrFPoT6.20	117
Moser, David	SaBPoT5.34	140	Murali, Srinivasan	WeET20.4	32
Moshe, Brand	WeBPoT12.6	14	Muramatsu, Chisako	ThAT19.4	38
Mosimann, Urs Peter	WeBPoT23.3	19		FrFPoT2.6	108
	ThAT11.5	36	Murari, Bhaskar Mohan	ThBPoT21.1	51
	SaAT15.4	131	Murashige, Tomotaka	WeAT12.3	4
Moslehpour, Mohsen	SaBPoT4.4	138	Murayama, Yoshinori	SaBPoT4.14	138
Moslem, Bassam	ThFPoT2.11	61	Murgia, Alessio	SaBPoT5.1	139
	FrAT18.2	83	Müri, René	WeBPoT23.3	19
Motoi, Kosuke	FrFPoT6.2	116		ThAT11.5	36
	SaBPoT1.21	134		SaAT15.4	131
Motoyama, Mayumi	FrFPoT2.36	109	Murino, Vittorio	WeBPoT3.12	9
Moufawad el Achkar, Christopher	FrDT2.1	98	Murphree, Dennis	FrET16.3	104
Moura Junior, Valdery	FrBPoT20.3	96	Murphy, Brian Michael	FrBPoT1.4	84
	FrGT4.6	121	Murphy, David	WeAT10.3	4
Moura, Fernando Silva de	ThET19.6	59	Murphy, Ryan J.	ThFPoT17.15	70
Moura, Igor Luiz Bernardes de	ThBPoT1.3	38		ThGT8.2	75
Moussavi, Zahra	WeET18.1	CC	Murphy, Spencer	ThFPoT12.15	67
	WeET18.5	32	Murray, Spencer	WeET11.3	30
	WeET18.6	32		ThFPoT12.31	67
	ThBPoT12.7	47	Murray, Victor	FrBPoT3.25	88
	ThFPoT12.18	67	Murugesan, Nithya	ThBPoT8.3	45
	ThFPoT13.4	68	Musiari, Michele	FrFPoT5.25	115
	FrBPoT1.11	85	Musolino, Antonino	WeBPoT18.1	17
Mousseau, Julien	WeCT13.3	24	Mussa-Ivaldi, Ferdinando	WeAT3.1	1
Moutopoulou, Efi	ThAT9.1	35		ThFPoT12.29	67
Mowafi, Yaser	ThFPoT20.1	71		FrFPoT4.21	112
Mrachacz-Kersting, Natalie	FrFPoT4.38	113	Musumeci, Gabriele	FrDT10.5	99
Muceli, Silvia	FrET10.3	103	Musumeci, Marialessia	SaBPoT1.38	134
	FrFPoT1.12	107	Mutanen, Tuomas	WeAT10.4	4
Muehlsteff, Jens	WeAT20.2	7	Muthuraman, Muthuraman	WeBPoT4.8	10
Mueller, Jennifer	ThET19.6	59		ThFPoT5.10	62
Mugler, Emily	ThDT8.1	53		ThFPoT5.13	63
	ThGT11.1	76		FrBPoT3.29	88
Mukaibayashi, Hiroshi	SaBPoT4.8	138		SaAT18.5	132
Mukherjee, Anirban	ThGT16.5	77	Mutsvangwa, Tinashe Ernest Muzvidzwa	SaDT11.4	146
	FrBPoT9.5	92	Myers, Emmarie	WeAT7.3	3
Mukhopadhyay, Rupsha	ThBPoT13.13	48	Myllymaa, Katja Maria	FrFPoT5.24	115
Mukkamala, Ramakrishna	FrAT9.1	C	Myllymaa, Sami Aulis	FrFPoT5.24	115
	FrDT1.1	98	Myllymäki, Tero	ThAT4.2	33
	FrFPoT5.11	114	Myoung, Hyoun Seok	ThET4.6	55
	SaBPoT4.4	138			
	SaBPoT4.6	138			
Mukund, Vidush	FrFPoT3.29	111			
Mulas, Marcello	ThBPoT12.6	47			
Mullan, Patrick Johannes	FrBPoT2.26	87			
Müller vom Hagen, Jennifer	FrET3.6	101			
Muller, Cobus	SaDT11.2	146			
Müller, Henning	WeAT15.2	5			
	ThBPoT14.2	48			
	FrET11.2	103			
	SaAT6.6	129			
Muller, Ingeborg	FrFPoT4.21	112			
Müller, Klaus-Robert	WeET4.5	27			
	ThFPoT1.1	60			
	FrFPoT4.30	113			
Muller, Margit	SaBPoT6.20	142			
Müller, Meiko	SaBPoT3.3	137			
Müller, Oliver	FrFPoT4.37	113			
Müller-Putz, Gernot	WeBPoT15.1	15			
	WeBPoT15.2	15			
	WeCT3.1	21			
	WeCT3.1	C			
	WeCT3.6	21			
	WeET3.1	27			
	ThAT3.4	33			
	ThAT3.6	33			
	ThET5.1	55			
Mulpuru, Siva	ThFPoT10.8	65			
Munarin, Fabiola	WeCT16.3	25			
Munih, Marko	ThET8.5	57			
Muñoz Cardona, John Edison	WeAT18.3	6			
Muñoz Zapata, Fernando Jorge	WeBPoT20.3	17			
Munoz, Beatriz	FrBPoT21.7	97			
Muñoz-Barrutia, Arrate	SaAT19.4	132			
Munzenrieder, Niko	WeBPoT23.2	19			

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Nacci, Andrea	ThBPoT19.3	50
Nadal, Jurandir	ThBPoT2.23	40
	SaBPoT1.18	134
Nadeau, Mathieu	WeCT13.3	24
Nader, Noujoud	WeET17.2	31
	ThBPoT3.4	41
Naemura, Kiyoshi	FrFPoT5.12	114
Nagai, Hidenao	SaBPoT1.42	134
Nagami, Shinsuke	FrFPoT1.27	107
Nagamune, Kouki	SaBPoT5.7	139
Nagaoka, Eiki	ThFPoT4.1	62
Nagaoka, Ryo	FrBPoT5.1	90
Nagaoka, Takashi	SaBPoT2.16	135
Nagaoka, Tomoaki	FrFPoT3.15	110
Nagaraddi, Venkatesh	ThFPoT23.2	72
Nagaraj, Sunil Belur	FrET17.6	105
Nagaraj, Yeshaswini	WeBPoT5.15	10
Nagase, Masae	ThFPoT5.9	62
Nagayoshi, Sho	WeBPoT1.11	8
Nagels, William	ThFPoT22.2	72
Nageotte, Florent	ThAT15.5	36
Nageswaran, Sharmila	WeBPoT14.3	15
naguib, Hani	ThFPoT17.2	70
Nahab, Fatta	ThBPoT14.14	49
Naik, Ganesh R	WeBPoT1.12	8
	ThFPoT1.7	60
	ThFPoT23.1	72
	ThGT18.2	77
	FrBPoT19.6	96
Naik, Jairaj	WeBPoT8.1	12
Naito, Hisashi	FrFPoT3.33	111

Naiyanetr, Phomphop	ThBPoT10.3	46	Nardone, Antonio	FrET11.5	103
	ThBPoT10.4	46	Narine, Kishan	ThBPoT10.7	46
Najafizadeh, Laleh	WeBPoT3.2	8	Naruse, Keiji	FrFPoT3.14	110
Najarian, Kayvan	ThBPoT5.7	42		SaBPoT7.14	144
	ThBPoT5.29	43	Naruse, Yasushi	FrBPoT15.2	94
	ThFPoT3.3	61	Narváez, Mario	ThFPoT5.8	62
	SaAT6.4	128	Nascimbeni, Alberto	FrGT11.6	123
Naji, Nashwan	WeBPoT4.1	9	Nascimento, Jacinto	FrET19.5	105
Najjaran, Homayoun	FrFPoT3.28	111	Nasehi Tehrani, Joubin	SaAT6.3	128
Naka, Katerina	WeBPoT12.5	14	Nash, Martyn	ThFPoT8.6	64
	FrBPoT12.1	93		FrFPoT3.31	111
Nakabayashi, Minako	FrFPoT8.4	117	Nash, S. Russell	FrET21.6	106
Nakada, Toru	FrFPoT4.13	112	Nasrallah, Fatima Ali	ThGT19.6	78
	SaBPoT1.17	133	Nasrollahy Shiraz, Arsam	ThBPoT13.4	47
Nakae, Satoshi	WeBPoT1.11	8	Nassef, Mohamed	ThGT6.1	74
Nakagawa, Daiki	FrBPoT4.10	89	Nasser, M. Ali	ThFPoT17.14	70
Nakagawa, Hidenori	SaAT10.2	130	Nasserroleslami, Bahman	SaBPoT2.13	135
	SaBPoT6.7	141	Nath, Rajon	FrFPoT7.4	117
Nakagawa, Seiji	FrFPoT4.27	113	Nathan, Viswam	FrBPoT12.3	93
Nakaguchi, Toshiya	ThAT7.3	34	Naulaers, Gunnar	WeCT4.1	21
Nakai, Yuma	FrFPoT1.23	107		FrAT18.5	83
Nakaizumi, Chisaki	WeBPoT15.6	16		SaBPoT1.20	134
Nakajima, Hiroshi	ThDT2.3	52		SaBPoT1.27	134
	ThDT2.4	52	Nava, Claudia	FrFPoT4.23	113
Nakajima, Kazuki	FrFPoT8.3	117	Nava, Michele	WeET1.2	26
	FrFPoT8.4	117	Nava-Guerra, Leonardo	ThGT1.3	73
	FrFPoT8.5	118	Navaneet, KL	FrFPoT9.15	119
Nakamura, Atsushi	SaBPoT2.16	135	Navarro, Andres	FrBPoT21.7	97
Nakamura, Go	WeBPoT17.4	17	Navarro, Joao	ThFPoT23.4	73
Nakamura, Hajime	WeET8.1	29	Navas, Ana	FrBPoT9.7	92
	ThET17.2	58	Nayagam, David A.X.	FrFPoT4.14	112
Nakamura, Hideo	FrGT18.5	125	Nazarian, Ara	ThBPoT9.2	45
Nakamura, Makoto	FrAT5.6	80		SaAT7.1	129
Nakamura, Munehiro	FrAT4.1	80	Nazarpour, Kianoush	ThDT8.2	53
Nakamura, Ryosuke	FrFPoT8.10	118		FrET11.1	C
Nakamura, Saya	FrAT17.1	83		FrET11.3	103
Nakamura, Tatsuhiko	ThFPoT15.2	69		FrET11.4	103
Nakamura, Tatsuya	ThBPoT7.4	44	Nazemzade, Nogol	FrFPoT9.13	119
Nakamura, Toru	ThET17.3	59	Nebe, Barbara	SaBPoT8.15	144
	SaBPoT1.22	134	Nedrud, Joshua	FrAT3.2	79
Nakamura, Toshiyasu	SaBPoT5.37	141	Nef, Tobias	WeBPoT23.3	19
Nakamura, Yuki	ThGT11.3	76		ThAT11.5	36
Nakane, Yotaro	SaBPoT7.11	144		SaAT15.1	CC
Nakanishi, Masaki	WeBPoT15.3	15		SaAT15.4	131
	WeET20.3	32	Negishi, Jun	SaBPoT7.17	144
Nakanishi, Motofumi	WeBPoT1.11	8	Negro, Francesco	WeAT11.5	4
Nakanishi, Yasutaka	SaBPoT5.17	140		ThFPoT12.15	67
Nakano, Kazushi	ThGT9.6	76		FrFPoT1.12	107
Nakano, Naoki	SaBPoT1.35	134	Nejadgholi, Isar	ThBPoT13.17	48
Nakao, Mitsuyuki	FrBPoT4.10	89	Nejati, Hossein	WeCT3.4	21
Nakashima, Shota	FrAT5.6	80		FrFPoT1.16	107
Nakashima, Yasutaka	WeAT1.5	1	Nelson, Andrew	ThFPoT12.15	67
Nakayama, Chikao	SaAT20.5	132	Nelson, Bradley	SaAT9.4	129
Nakayama, Haruka	FrET21.5	106	Nelson, Marvin	WeAT7.1	2
Nakazawa, Hitomi	FrFPoT2.35	109	Nemat, Shamim	ThGT1.4	73
Nalci, Alican	ThBPoT14.14	49	Nemer, Georges	ThET16.5	58
Nam, Dong-Hoon	FrBPoT3.2	87	Nemoto, Iku	FrBPoT15.9	95
Nam, Yunjun	WeBPoT15.14	16	Neofytou, Marios	WeBPoT25.8	20
Nam, Yunyoung	ThET17.5	59	Neokleous, Kleantis	WeBPoT25.8	20
Namba, Naoko	SaBPoT7.5	143	Nepal, Surya	SaDT5.1	145
Nambu, Isao	ThFPoT5.7	62	Nerino, Roberto	SaBPoT3.9	137
Namikawa, Hiroki	FrFPoT2.10	108	Nessi, Federico	ThFPoT17.3	70
Nan, Hao	ThBPoT1.6	38		ThGT8.4	75
Nan, Wenya	ThFPoT14.4	68	Nesterenko, Igor	SaBPoT8.2	144
Nanayakkara, Thrishantha	FrAT1.6	79	Nestor, Bret Andrew	SaBPoT7.16	144
	SaAT1.1	127	Neubauer, Sandra	FrBPoT21.5	97
Nandagopal, Nanda	FrBPoT2.7	86	Neugebauer, Alexander	FrAT16.1	83
Nano, Marina-Marinela	FrGT17.3	124	Neuman, Michael	FrGT9.1	C
Napadow, Vitaly	ThFPoT13.2	68		FrGT9.5	123
	FrDT9.3	99		SaBPoT3.34	137
	FrDT9.5	99	Neumuth, Thomas	WeCT15.6	25
	FrDT9.6	99		FrFPoT6.10	116
Napoletano, Linda	FrBPoT3.18	88	Neuta, Paola Andrea	ThBPoT16.2	49
Napolitano, Antonio	FrET15.4	104	Neves, Eduardo Borba	WeBPoT22.7	19
Narain, Jaya	ThFPoT21.2	72		WeBPoT22.8	19
Narayanan, Rangavittal	WeCT9.6	23		ThFPoT11.5	66
Narayanaswamy, Anand	WeBPoT7.7	12	Neves, Wendell W.	FrFPoT2.31	109
Nardelli, Mimma	WeAT13.4	5	Neville, Anne	SaAT12.5	130
	ThFPoT14.2	68	Newland, John J.	FrFPoT5.27	115
	FrAT12.4	82	Ng, Ben	ThFPoT11.4	65
	FrBPoT2.25	87	Ng, Fu Siang	FrET19.3	105

Ng, Hoi Dick	WeBPoT12.4	14	Nikolaou, Foivia	WeCT19.2	26
	FrET21.5	106	Nikolic, Dragana	WeCT18.2	25
Ng, Kenney	ThAT12.1	36	Nikolic, Konstantin	WeCT10.6	23
Ngeo, Jimson	WeET11.1	30		ThBPoT13.8	48
Ngo, Giang Chau	FrGT7.1	122	Nikpour, Seyedhassan	ThET9.5	57
Ngufor, Che	FrET16.3	104	Nilsson, Michael	FrBPoT4.11	89
Nguyen, Hai-Long	WeCT9.4	23	Nino, Gustavo	WeAT7.5	3
Nguyen, Hung T.	WeBPoT1.12	8	Nip, Zarina	FrBPoT20.3	96
	ThAT20.4	38	Nishad, Shyam Sunder	ThFPoT12.16	67
	ThBPoT2.21	40	Nishida, Masahiro	WeAT12.3	4
	ThBPoT18.1	50		ThBPoT10.1	46
	ThBPoT18.2	50		FrBPoT7.3	91
	ThFPoT1.7	60	Nishifuji, Seiji	WeET3.5	27
	ThFPoT12.10	66	Nishikawa, Satoshi	ThFPoT12.8	66
	ThFPoT12.23	67	Nishikawa, Takuya	SaBPoT4.12	138
	FrBPoT2.5	86		SaBPoT4.13	138
	FrBPoT13.11	94		SaBPoT4.14	138
	FrBPoT15.8	94	Nishimura, Jun	FrFPoT2.37	110
	FrET17.1	CC	Nishimura, Takahiro	WeBPoT17.1	16
	FrET17.4	105		SaBPoT5.5	139
	FrGT11.1	CC	Nishitani, Kosei	FrFPoT8.4	117
	FrGT11.5	123	Nishiyama, Shuhei	WeBPoT10.2	13
Nguyen, Huy Hoang	ThBPoT18.2	50	Nita, Cosmin	WeBPoT12.3	14
Nguyen, Louis	FrFPoT5.18	115	Nitsche, Michael A.	FrBPoT24.5	98
Nguyen, Mai K.	FrBPoT4.16	89	Niu, Haijun	ThBPoT1.1	38
Nguyen, Ngoc Quang	ThFPoT2.1	60		FrBPoT6.2	90
Nguyen, Thanh Trung	FrET9.5	103	Niu, Lili	FrAT20.6	84
Nguyen, Thi Anh Dao	FrFPoT9.22	119	Niwayama, Masatsugu	FrFPoT9.8	119
Nguyen, Thinh	WeBPoT4.5	9		FrFPoT9.9	119
Nguyen, Thuy Anh Khoa	FrET15.2	104		FrFPoT9.10	119
Nguyen, Tuan Nghia	ThBPoT2.21	40		FrFPoT9.11	119
	ThBPoT18.1	50		SaAT8.3	129
	ThBPoT18.2	50	Nobis, Alessandro	FrBPoT6.3	90
	ThFPoT12.10	66	Noda, Toshihiko	ThBPoT12.2	47
	FrBPoT13.11	94		FrFPoT2.36	109
	FrGT11.5	123	Noetscher, Gregory	ThBPoT9.2	45
Ni, David	ThGT2.4	73		SaAT7.1	129
Ni, Hongbo	ThFPoT11.7	66	Noga, Michelle	ThFPoT3.1	61
Ni, Pavel	SaBPoT2.21	135	Nogawa, Masamichi	FrFPoT3.33	111
Nicholas, Jennifer	FrET20.2	106	Noguchi, Yukihiko	FrBPoT13.9	93
Nicholas, Preiser	ThGT21.2	78	Nogueira-Barbosa, Marcello	WeBPoT6.4	11
Nick, Tyler	FrBPoT13.5	93	Nogueira-Neto, Guilherme	ThFPoT12.11	66
Nickerson, David Phillip	SaBPoT8.21	145	Noh, Hyung Wook	ThBPoT2.35	40
Nicolae, Irina-Emilia	WeCT3.5	21		FrFPoT1.14	107
Nicolaidis, Andrew	WeAT15.6	5	Noh, Seungwoo	FrFPoT6.3	116
Nicolopoulos, Jenny	ThBPoT5.19	42	Noh, Yeon Sik	ThET17.6	59
Nicolucci, Alberto	SaBPoT2.38	136	Noh, Yohan	ThFPoT17.4	70
Nie, Xuhui	WeET8.5	29		FrAT1.6	79
Niederhauser, Thomas	FrFPoT1.13	107		FrAT12.1	C
Niegowski, Maciej	FrET18.4	105		FrAT12.3	82
Niehaus, Katherine	FrET5.5	102		SaAT12.6	130
Niels, Oesingmann	ThFPoT13.1	67	Nohama, Percy	WeBPoT22.10	19
Nielsen, Poul	ThFPoT8.6	64		ThFPoT12.11	66
	FrET21.2	106	Nohara, Ryuki	SaBPoT5.21	140
	FrFPoT3.31	111	Nolan, Karen	ThFPoT12.4	66
	SaAT9.3	129		SaBPoT6.40	143
	SaBPoT8.21	145	Nolan, Michael	FrFPoT1.22	107
Nieminen, Hannu	FrGT15.4	124	Nold, Bernhard	FrAT16.1	83
Niesche, Annegret	SaBPoT3.3	137	Noll, Veronika	FrAT1.5	79
Nieus, Thierry	ThET3.1	55	Nolla, Carme	FrBPoT4.15	89
	ThET3.1	CC	Nollo, Giandomenico	WeCT18.3	25
	ThET3.2	55		ThET18.2	59
	FrDT10.2	99		FrBPoT22.4	97
Nieves, Orlando	SaBPoT1.33	134		FrDT8.1	C
Nievola, Julio Cesar	FrBPoT20.7	96		FrDT8.2	99
Nihei, Misato	FrFPoT8.17	118	Nomura, Kenta	ThBPoT18.5	50
	FrFPoT8.19	118		ThFPoT15.8	69
Niikawa, Takuya	SaBPoT6.10	141	Nomura, Taishin	WeCT1.1	CC
Niiyama, Ryuma	ThFPoT12.8	66		WeCT1.4	20
Niketeghad, Soroush	FrAT3.2	79		ThBPoT14.13	49
Nikita, Konstantina	WeBPoT25.1	20		ThET11.3	58
	ThAT16.4	37		FrFPoT6.15	117
	FrBPoT5.2	90	Nonclercq, Antoine	FrET12.3	104
	FrDT5.1	98	Nonoyama, Tadayoshi	FrFPoT4.13	112
	FrET15.3	104		SaBPoT1.17	133
	FrFPoT3.12	110	Noori, Shahab	WeET2.3	27
Nikkhoo, Mohammad	WeBPoT10.9	14	Noorzadeh, Saman	WeBPoT3.1	8
	ThET9.5	57	Noponen, Kai	SaAT4.5	128
	FrFPoT9.13	119	Noriki, Ito	SaBPoT6.34	142
Nikkhoo, Nasim	FrGT9.2	123	Noriyuki, Sasaki	FrGT12.2	123
Nikolakopoulos, George	WeBPoT2.1	8	Noro, Sekiya	SaBPoT5.23	140

Norouzi, Narges	FrBPoT3.26	88	Oguchi, Kimio	FrBPoT19.4	96
Nourani, Mehrdad	WeBPoT7.7	12		FrFPoT6.14	117
	WeBPoT20.4	17		FrFPoT6.20	117
	ThFPoT3.7	61	Ogura, Yuya	FrAT5.6	80
	ThFPoT23.2	72	Oguri, Koji	WeBPoT6.11	11
Noury, Norbert	ThFPoT20.4	71	Oh, Hyuntaek	FrFPoT9.23	119
Novak, Daniel	WeCT5.3	22	Oh, Jieun	SaBPoT2.37	136
	ThBPoT13.16	48	Oh, Keonghwan	SaBPoT6.3	141
Novo, Jorge	FrFPoT2.16	108	Oh, Soojung	FrFPoT4.19	112
Novosadová, Michaela	FrBPoT6.4	90	Oh, Tong In	FrFPoT2.12	108
Novosel, Jelena	FrAT7.2	81	Ohki, Takuya	SaBPoT8.10	144
Nowak, Przemyslaw	ThBPoT13.3	47	Ohkura, Michiko	FrBPoT19.8	96
Nuanprasert, Somchai	ThBPoT2.12	39		FrFPoT1.20	107
Nudo, Randolph	WeET15.5	31		FrFPoT6.12	116
Nugent, Brian	SaAT3.6	128	Ohno Yuji, Yuji	ThFPoT19.1	71
Nunes, Diogo	FrBPoT1.6	85	Ohno, Yuko	FrFPoT6.15	117
Nunokawa, Kiyohiko	WeBPoT21.6	18		FrFPoT6.21	117
Nycz, Christopher	ThET8.4	57	Ohnuma, Kentaro	SaBPoT4.8	138
Nyffeler, Thomas	ThAT11.5	36	Ohta, Hidetoshi	ThET20.4	60
Nzamushe, Jean-Robert	ThFPoT15.5	69	Ohta, Jun	ThBPoT12.2	47
	FrFPoT5.8	114		FrFPoT2.35	109
				FrFPoT2.36	109
			Ohta, Katsuya	FrFPoT5.29	115
			Ohta, Yasumi	FrFPoT2.36	109
			Ohtsu, Shoya	ThET11.3	58
			Ohuchi, Katsuhiko	FrBPoT22.3	97
			Ohyashiki, Junko	SaBPoT8.10	144
			Okada, Kazunori	WeAT7.5	3
			Okada, Masato	FrBPoT15.2	94
			Okada, Shima	FrFPoT6.7	116
				SaBPoT5.16	140
				SaBPoT8.7	144
			Okada, Tetsuaki	FrFPoT8.19	118
			Okahara, Shigeyuki	FrAT2.1	79
			Okamoto, Ryota	FrFPoT2.10	108
			Okamoto, Takumi	ThBPoT5.13	42
			Okamura, Allison	ThFPoT17.10	70
			Okano, Teruo	ThBPoT16.4	49
			Okazaki, Toshihiko	FrFPoT3.24	111
			Oke, Yoshihiko	FrFPoT1.27	107
				SaBPoT2.33	136
			Oku, Yoshitaka	FrFPoT1.27	107
				SaBPoT2.33	136
			Okuhata, Hiroyuki	WeET8.1	29
			Okumura, Akihisa	FrAT5.6	80
			Okumura, Shigeaki	FrBPoT5.7	90
			Okumura, Susumu	FrFPoT2.6	108
			Okun, Michael	FrFPoT4.32	113
				FrFPoT4.33	113
			Okuno, Akifumi	SaBPoT3.23	137
			Okuno, Keisuke	FrBPoT3.1	87
			Okuno, Ryuhei	FrFPoT1.2	106
			Okur, Bilal	FrFPoT9.3	118
			ÓLaighin, Gearoid	ThFPoT12.7	66
				FrFPoT8.15	118
			Oldfield, Matthew	WeET1.6	26
			Oliveira, Anderson	FrFPoT4.28	113
				SaBPoT6.27	142
			Oliveira, Cristina	ThET2.3	54
				ThFPoT2.13	61
			Oliveira, Igor H. de	FrBPoT19.5	96
			Oliveira, Jorge	ThBPoT5.2	41
				ThBPoT5.23	43
				ThFPoT2.13	61
			Oliveira, José Luis	WeBPoT6.22	12
				WeBPoT25.3	20
				ThBPoT9.6	45
			Olivier, Bari	SaBPoT4.6	138
			Olivieri, Emidio	ThFPoT17.17	70
			Olivo, Alessandro	WeET13.1	CC
				WeET13.2	30
			Oloumi, Daniel	FrET7.3	102
			Oloumi, Faraz	ThFPoT6.6	63
			Omarkulov, Nurdos	ThAT9.6	35
			Omatsu, Satoko	ThFPoT12.13	66
			Omenás, Ivar Nagelgaard	FrBPoT1.14	85
			Omens, Jeffrey	WeBPoT5.8	10
			Omire-Mayor, Daryl	FrAT19.6	84
			O'Muircheartaigh, Jonathan	WeAT7.1	2
			Onal, Itir	ThAT18.1	37
			Onaran, Ibrahim	FrAT3.4	79

O

Oakley, Barbara	FrDT11.1	100			
	FrDT11.1	C			
Oates, Tim	FrET9.3	103			
Obara, Kazuma	ThFPoT3.4	61			
	FrET1.2	100			
Obien, Marie Engelene	WeBPoT9.4	13			
Obinata, Goro	FrAT10.5	82			
	SaBPoT5.11	140			
Oboe, Roberto	SaBPoT6.44	143			
O'Brien, Terence	WeBPoT3.8	9			
	WeBPoT3.9	9			
Obrig, Hellmuth	SaDT4.4	145			
Obrist, Dominik	ThBPoT10.6	46			
	FrFPoT1.13	107			
O'Byrne, Sean	ThAT20.2	38			
Occleshaw, Christopher	WeBPoT5.8	10			
Ochoa, John Fredy	FrET6.4	102			
	FrGT5.3	121			
Ochoa, Juan Eugenio	FrDT1.5	98			
Ocón Hernández, Olga	WeBPoT20.11	18			
O'Connell, Sandra	FrFPoT8.15	118			
O'Connor, Noel	WeET8.3	29			
ODA, Makoto	ThET9.3	57			
Oda, Takaaki	SaBPoT2.23	136			
Oda, Teruo	FrFPoT4.35	113			
Odahara, Takuya	SaBPoT4.16	138			
O'Dea, Bridianne	FrET20.2	106			
O'Driscoll, Cillian	FrBPoT1.4	84			
Odstrcilik, Jan	ThGT7.3	75			
Oei, S. Guid	WeAT8.2	3			
	FrAT18.3	83			
Oesterlein, Tobias	ThFPoT10.7	65			
Oezguen, Novaf	SaAT18.4	132			
Ofner, Patrick	WeCT3.1	21			
	WeCT3.6	21			
Oga, Yasuhiro	ThDT7.2	53			
	SaBPoT4.13	138			
	SaBPoT4.14	138			
Ogasawara, Koetsu	ThAT6.2	34			
Ogasawara, Tsukasa	ThAT9.5	35			
	SaBPoT5.22	140			
Ogawa, Emiyu	WeBPoT22.4	18			
Ogawa, Hiroshi	WeCT17.3	25			
	FrAT11.6	82			
Ogawa, Kyohei	FrFPoT8.10	118			
Ogawa, Miho	FrAT20.2	84			
Ogawa, Mitsuhiro	FrFPoT3.33	111			
Ogawa, Takafumi	SaBPoT4.22	139			
Ogawa, Takeshi	WeBPoT15.15	16			
Ogden, Alan	FrBPoT17.7	95			
Ogden, Todd	WeET19.2	32			
Ogier, Stephen	WeCT7.1	22			
Ogitsu, Takeki	ThFPoT15.8	69			
Ogohara, Kazunori	FrFPoT2.6	108			
O'Grady, Gregory	WeCT2.2	21			
	WeET4.4	27			
	FrBPoT2.21	86			

O'Neal, D. Patrick	FrBPoT17.7	95	Oweis, Ghanem F.	ThAT15.6	37
Ong, Ee Ping	ThFPoT6.3	63	Owen, Chris G	ThGT7.1	73
Ong, Hian Tat	ThET10.3	57	Owens, Robert	ThGT1.4	75
Ong, Marcus Eng Hock	FrFPoT5.14	114	Owens, Roisin M.	FrGT8.5	122
	FrFPoT5.17	114	Owis, Mohamed	ThFPoT3.9	62
Onizuka, Kohei	WeBPoT21.10	18		ThFPoT3.10	62
Onken, Michael	WeCT15.2	24		ThGT5.1	CC
Ono, Naoaki	ThFPoT8.2	64		ThGT5.3	74
	SaBPoT8.11	144	Oyama, Daisuke	FrET7.5	102
Ono, Shimpei	SaBPoT4.17	138	Oyama, Helena T.T.	FrFPoT5.42	116
Ono, Takuya	FrAT17.1	83	Ozaki, Masashi	FrAT19.4	84
	SaBPoT1.43	135	Ozamoto, Yuki	WeET7.3	28
Ono, Yumie	WeCT19.1	26	Ozanyan, Krikor	FrFPoT9.18	119
	ThFPoT10.1	65	Ozawa, Emi	WeBPoT21.6	18
	ThFPoT12.13	66	Ozawa, Jun	SaBPoT6.28	142
	SaBPoT1.16	133	Ozay, Mete	ThAT18.1	37
	SaBPoT4.10	138	Ozbek, I. Yucel	WeBPoT2.9	8
Onodera, Hiroshi	ThFPoT12.8	66	Ozen, Mustafa	FrET16.5	104
Onodera, Takayuki	ThBPoT18.5	50	Oziat, Julie	FrGT8.5	122
Onofri, Leonardo	WeBPoT6.10	11	Ozkan, Ece	WeBPoT10.8	13
Onogi, Shinya	FrFPoT2.5	108	Ozkan, Mehmed	FrFPoT2.26	109
Onorati, Francesco	SaBPoT1.32	134		SaBPoT5.6	139
Oost, Elco	SaBPoT2.39	136	Ozkan, Omer	FrFPoT4.31	113
Opisso, Eloy	ThAT3.4	33	Ozkan, Ozlenen	FrFPoT4.31	113
Opri, Enrico	FrFPoT4.32	113			
	FrFPoT4.33	113			
Ordenez, Juan Sebastian	WeBPoT7.1	12			
	WeBPoT7.2	12			
	WeBPoT14.9	15			
	FrET10.5	103			
O'Reilly, Una-May	FrAT17.4	83			
	SaBPoT1.44	135			
Orekhov, Andrew	ThGT8.1	75			
Orgo, Laura	ThFPoT2.4	61			
	SaAT18.2	131			
Orhanli, Tuna	SaBPoT5.38	141			
Orini, Michele	WeAT4.1	2			
	FrAT8.2	81			
	FrAT8.3	81			
	SaAT5.6	128			
Orlandi, Silvia	FrFPoT2.3	108			
	SaBPoT1.6	133			
Ormachea, Juvenal	ThET6.4	56			
Orozco, Alvaro	ThBPoT5.36	43			
	ThBPoT5.39	44			
	FrBPoT3.31	88			
Orozco, Jorge Luis	FrBPoT21.7	97			
Orphanidou, Christina	WeCT19.2	26			
Orrico, Ada	FrGT20.1	125			
Ortega, Paulina	SaBPoT6.46	143			
Ortiz, Daniel	ThBPoT8.6	45			
Ortiz, Gabriel	SaDT14.2	147			
Ortiz, Rafael	WeCT7.6	22			
Ortiz-Catalan, Max	WeBPoT16.6	16			
	WeET11.5	30			
Ortiz-de-Solorzano, Carlos	SaAT19.4	132			
Ortiz-Posadas, Martha R.	ThBPoT22.2	51			
Ortner, Rupert	WeCT17.3	25			
O'Shea, Dan	FrGT10.1	123			
Oshiro, Osamu	ThBPoT7.7	45			
	ThFPoT7.6	63			
Osmani, Venet	WeCT9.1	23			
Osorio, Ignacio Javier	FrFPoT9.26	119			
Ospina, Juan David	WeET19.1	32			
	ThAT19.3	38			
	ThGT6.5	75			
Ostrovidov, Serge	SaAT9.2	129			
Osu, Rieko	ThFPoT5.7	62			
O'Sullivan, James	FrAT11.1	82			
Osumi, Michihiro	ThAT10.2	35			
Ota, Jun	SaBPoT5.19	140			
	SaBPoT6.21	142			
Otero, Abraham	WeET19.6	32			
Otsuka, Yuya	FrFPoT9.24	119			
Ottenberg, Florian	FrFPoT6.23	117			
	FrFPoT7.4	117			
	FrFPoT8.13	118			
Otto, Oliver	WeET1.3	26			
Ouchi, Ryutaro	WeBPoT19.3	17			
Ourednicek, Petr	FrBPoT6.4	90			
Ouypornkochagorn, Taweechai	WeBPoT4.3	9			

P

P Sudarshan, Viswanath	WeBPoT5.15	10
P, Rajalakshmi	WeBPoT8.1	12
	ThFPoT23.1	72
Pacheco Lloret, Manuela B.	WeAT9.1	3
Paciello, Antonio	SaBPoT3.24	137
Pacini, Giovanni	ThAT5.4	34
	FrFPoT1.28	108
Pacini, Stefania	SaAT19.2	132
Paciorkowski, Alex R.	FrBPoT3.21	88
Padasdao, Bryson	FrGT12.1	123
Padhye, Nikhil	FrGT15.2	124
Padir, Taskin	ThFPoT21.3	72
	ThFPoT21.4	72
	FrBPoT21.6	97
Padmanabhan, Manoj	WeET20.4	32
Paek, Andrew	FrGT10.5	123
Pagani, Elisabetta	SaBPoT2.8	135
Pagano, Roberto	SaBPoT2.27	136
Paganoni, Sabrina	SaAT17.3	131
Page, Adam	FrET9.3	103
Paggi, Nicholas	ThET2.4	54
Pagnotta, Mattia Federico	FrET3.1	101
	FrET3.2	101
Pai, Dinesh K.	SaBPoT5.37	141
Pai, Praful P.	SaAT9.6	130
Pai, Vinay	FrDT5.1	CC
	SaDT5.1	CC
Paiva, Rui Pedro	FrAT4.4	80
	FrBPoT1.5	84
Pakarinen, Satu	FrBPoT8.3	91
Pala, Pietro	FrFPoT2.3	108
Palacios Pawlovsky, Alberto	FrFPoT9.32	120
Palagi, Stefano	ThFPoT17.18	70
	SaBPoT5.35	141
Palanisamy, Krishnamoorthy	WeAT4.3	2
	WeET2.6	27
	FrBPoT3.3	87
Palaniswami, Marimuthu	WeBPoT3.8	9
	WeBPoT3.9	9
	WeBPoT6.8	11
	ThAT5.3	34
	ThBPoT2.19	39
	ThBPoT5.40	44
	ThGT5.5	74
	SaAT5.1	128
	SaAT5.4	128
Paleari, Marco	FrBPoT2.19	86
	FrET18.6	105
Paley, Martyn	WeCT17.5	25
Palit, Arnab	FrBPoT11.1	92
Palladino, Joseph	SaBPoT4.31	139
Pallas-Areny, Ramon	FrGT9.4	123
Pallotta, Stefania	FrFPoT5.20	115

Palma López, Alberto	WeBPoT20.11	18	Paredes, Simao	ThAT12.3	36
Palma, Giuseppe	ThBPoT5.24	43		ThBPoT11.4	47
Palmer, Robert Ieuan	ThBPoT4.2	41		FrBPoT20.2	96
Palmerini, Luca	FrDT2.4	98	Parent, Stefan	ThET9.1	57
Palombit, Alessandro	FrFPoT9.12	119	Parhi, Keshab	ThFPoT6.5	63
Palti, Yoram	FrBPoT23.1	97		FrAT11.1	CC
Palumbo, Pierpaolo	FrDT2.4	98		FrAT11.3	82
Pampouchidou, Anastasia	ThBPoT24.4	52		FrBPoT13.1	93
Pamula, Yvonne	WeCT18.6	25	Pariaszewska, Katarzyna	ThBPoT2.22	40
Pan, Lizhi	FrET18.3	105	Parikh, Pranav	FrGT10.5	123
Pan, Xingzheng	FrBPoT2.21	86	Parikh, V	WeBPoT13.3	14
Pan, Yongsheng	ThET7.6	56	Parisi, Antonino	SaBPoT2.27	136
Pan, Yuehao	WeBPoT5.13	10	Park, Dae-jin	ThBPoT12.1	47
Panagiotidis, Mihalis	ThAT16.4	37	Park, Edward J.	WeBPoT1.9	8
Panayides, Andreas	WeAT8.1	3		WeBPoT7.6	12
	WeAT15.6	5		ThBPoT6.9	44
Pancham, Krishna	WeAT7.5	3	Park, Frank Chongwoo	SaBPoT5.28	140
Panda, Tapobrata	ThBPoT8.3	45	Park, Geehoon	FrET21.4	106
Pané Vidal, Salvador	SaAT9.4	129	Park, Haneul	SaBPoT8.17	144
Panek, Daria	WeBPoT6.7	11	Park, Heewon	FrFPoT8.11	118
Panerai, Ronney	WeCT18.2	25	Park, Hyeyoung	ThET2.5	55
Panescu, Dorin	WeAT4.6	2	Park, Hyun-cheol	WeAT1.2	1
	WeAT15.1	C		FrBPoT4.14	89
	WeAT15.4	5	Park, Jaeho	FrFPoT1.10	107
	WeBPoT23.7	19		SaBPoT7.8	143
	FrAT8.1	81	Park, Jee Soo	FrFPoT1.14	107
	FrAT8.1	CC	Park, Ji Su	SaBPoT5.10	140
	FrET15.1	CC	Park, Jiheum	FrFPoT3.13	110
	FrET15.6	104	Park, Jin Man	FrFPoT2.21	109
	FrFPoT5.5	114		FrFPoT2.22	109
	FrGT20.6	126		SaBPoT2.22	136
Pang, Fengqian	FrGT6.6	122	Park, Jiwoong	WeCT20.4	26
Pani, Danilo	ThBPoT7.10	45	Park, Jonghyun	FrFPoT6.4	116
Panigrahi, Bivas	FrFPoT1.7	107	Park, Jonguk	ThET4.6	55
	FrFPoT1.11	107		FrBPoT3.2	87
Pankaew, Anongnat	ThBPoT9.3	45	Park, Joong Yull	FrFPoT3.9	110
Pankaj, Gupta	WeBPoT15.15	16	Park, Juyoung	ThGT5.1	74
Pantoni, Leonardo	ThFPoT5.4	62	Park, Kihong	ThFPoT7.3	63
Pantziaris, Marios	WeAT15.6	5	Park, Kwang S.	ThBPoT2.10	39
Panzeri, Daniele	FrGT3.6	121		ThDT1.4	52
Panzeri, Stefano	WeAT3.1	1		ThET2.5	55
Paoletti, Clara	FrFPoT3.1	110		ThFPoT18.2	71
Paoletti, Nicola	FrET15.1	104		ThFPoT18.3	71
Papacostas, Savvas S.	WeET4.6	27		FrET12.2	104
Papadaniil, Chrysa	ThFPoT2.2	60		SaBPoT1.1	133
	FrGT10.6	123		SaBPoT6.30	142
Papadopoulos, Agathoklis	ThBPoT9.13	46	Park, Kyoungchul	FrGT9.1	123
Papadopoulos, Evangelos	ThAT9.1	35	Park, Kyusic	ThGT8.3	75
Papadosifos, Nikolaos	FrBPoT13.5	93	Park, Sang ha	SaDT1.4	145
Papafaklis, Michail	WeBPoT12.5	14	Park, Sang-Geon	FrFPoT5.4	114
	FrBPoT12.1	93	Park, Sangjun	SaBPoT2.21	135
Papaloukas, Costas	FrGT16.5	124	Park, Sehyung	ThBPoT5.31	43
Papanicolaou, Andrew	FrGT4.5	121		ThGT8.3	75
Papapanagiotou, Vasileios	SaAT4.4	128	Park, Seung Gyu	SaBPoT5.32	140
Papathanasiou, Eleftherios S.	WeET4.6	27	Park, Sooji	SaBPoT3.25	137
Papini, Gabriele	FrGT15.5	124	Park, Sung Ha	ThFPoT7.2	63
Pappa, Aglaia	ThAT16.4	37	Park, Sunghhee	WeBPoT14.6	15
Pappalardo, Federico	WeBPoT21.5	18		ThAT11.2	36
Paradiso, Rita	WeAT20.5	7	Park, Sungwoo	FrFPoT5.23	115
	WeET5.2	28	Parker, Kevin	ThET6.4	56
	ThFPoT1.12	60	Parker, Matthew David	ThFPoT8.6	64
Paradkar, Neeraj	WeET5.3	28	Parkinson, Matthew	FrFPoT7.3	117
Parak, Jakub	WeAT20.1	7	Parks, Philip	SaAT3.4	127
	SaAT17.6	131		SaAT3.5	127
Parakh, Abhinav	SaBPoT2.40	136		SaAT3.6	128
Paramanathan, Senthooopiya A.	WeET10.1	29	Parks, Stuart	ThBPoT1.4	38
Paraschiv-Ionescu, Anisoara	FrDT2.1	98	Parlitz, Ulrich	ThET18.6	59
Paraskevopoulou, Sivylla-Eleni	ThAT20.6	38	Parmeggiani, Camilla	SaBPoT5.35	141
Parati, Gianfranco	ThDT6.2	53	Parnianpour, Mohammad	WeBPoT10.9	14
	ThET1.3	54		ThET9.5	57
	ThET1.4	54		FrFPoT9.13	119
	FrDT1.1	CC	Parodi, Aquiles	SaBPoT3.5	137
	FrDT1.5	98	Parodi, Oberdan	WeBPoT12.5	14
Parazynski, Scott	FrAT19.5	84		FrAT6.6	81
Parazzini, Marta	WeAT10.1	CC	Parolini, Ornella	WeCT16.6	25
	WeAT10.2	4	Parolo, Claudio	FrFPoT6.24	117
	WeAT10.5	4	Parra, Lucas C.	FrAT11.2	82
	ThBPoT9.15	46	Parra, Mario A	WeET17.5	31
	ThBPoT13.2	47		ThBPoT2.30	40
Paredes, José-Luis, Paredesj	FrET19.2	105	Parragh, Stephanie	SaBPoT4.2	138
			Parri, Andrea	ThET8.2	56
				ThET8.5	57

Parrino, Liborio	ThET1.2	54	Pavel, Misha	WeCT9.2	23
	FrBPoT1.8	85		ThAT4.2	33
Parro, Vanderlei C.	FrFPoT9.7	119		ThGT21.3	78
Parsell, Doug	FrBPoT2.22	87		FrGT15.1	C
Parvez, Mohammad Zavid	ThBPoT3.7	41		FrGT15.4	124
	FrFPoT1.4	106		SaDT5.4	145
Pascazio, Vito	ThBPoT5.30	43	Pavesi, Andrea	WeAT16.1	5
Pascucci, Federica	SaAT15.5	131		WeAT16.1	CC
Pashaei, Elnaz	FrET16.5	104		WeAT16.2	5
Paskaranandavadivel, Niranchan	WeCT2.2	21		WeET1.1	26
	WeET4.4	27	Pavone, Francesco Saverio	FrGT19.3	125
	FrBPoT2.21	86	Paydarfar, David	FrAT18.4	83
	FrBPoT2.22	87	Pearce, John Anthony	ThAT15.1	CC
Pasluosta, Cristian Federico	ThBPoT6.1	44		ThAT15.2	36
	FrBPoT2.26	87	Pearson, James	WeBPoT12.1	14
Pasnicu, Anca	WeBPoT3.6	9	Pecchia, Leandro	FrGT20.1	125
Pasotti, Lorenzo	WeBPoT11.5	14	Pecora, Alessandro	ThBPoT8.1	45
Pasquale, Valentina	ThBPoT13.3	47	Pedersen, Karina F.	WeET10.1	29
	ThFPoT14.3	68	Pederzoli, Carlo	FrBPoT4.5	89
	ThFPoT14.9	68	Pediaditis, Matthew	ThBPoT24.4	52
Pasquinelli, Cristina	SaBPoT6.41	143	Pedotti, Antonio	ThGT9.1	CC
Pasquini, Guido	ThET8.2	56		SaAT1.1	C
	SaBPoT1.6	133	Pedrocchi, Alessandra	WeAT11.3	4
Passamonti, Luca	ThET4.4	55		WeET11.2	30
	FrDT9.1	99		ThAT11.1	CC
Passard, Michelle	FrBPoT22.1	97		ThAT11.3	36
Passaretti, Francesca	SaBPoT6.42	143		ThBPoT18.7	50
Passetti, Giovanni	ThBPoT19.2	50		ThDT6.1	53
	FrGT3.2	120		FrET11.5	103
Passineau, Michael J.	SaAT1.4	127		FrFPoT4.23	113
Passino, Claudio	FrBPoT2.23	87	Peduto, David	FrBPoT19.3	96
Pasti Mioni, Daniel	ThFPoT23.4	73	Peebles, Karen	FrAT9.5	82
Pastoor, Sander	FrBPoT1.20	85	Peeraer, Louis	WeBPoT6.15	11
Pastore, Vito Paolo	ThBPoT2.28	40	Peeters, Ralf	ThFPoT10.6	65
Pastorelli, Roberta	FrBPoT9.7	92		FrGT18.3	125
Pastorino, Laura	ThAT16.1	37	Pei, Wei	ThBPoT2.13	39
Patane', Andrea	FrET15.1	104		ThFPoT12.9	66
Patchava, Krishna Chaitanya	ThAT5.6	34	Pei, Yanling	FrAT10.5	82
Patel, Niravkumar	ThFPoT17.6	70	Peiker, Christiane	WeAT20.2	7
	FrFPoT5.41	116	Peixoto Pinto, Talita	SaBPoT6.24	142
Patel, Shyamal	SaAT17.3	131	Pekkonen, Eero	FrBPoT3.13	87
Paterson, Andrew	FrGT8.3	122	Peláez, Rafael	SaAT19.4	132
Pathak, Jyotishman	FrET16.3	104	Pelizzari, Laura	SaBPoT2.24	136
Pathangay, Vinod	WeBPoT2.3	8	Pellegrino, Laura	FrET3.3	101
Pathirana, Pubudu N.	ThBPoT1.2	38		SaBPoT6.20	142
	FrGT11.1	123	Pellicciari, Maria Concetta	ThBPoT2.3	39
Pati, Sandipan	WeBPoT2.5	8	Peltokangas, Mikko	FrBPoT1.9	85
Patil, Ravindra	WeAT4.3	2		FrBPoT1.10	85
	WeET2.6	27	Pendharkar, Gita	ThFPoT1.7	60
	FrBPoT3.3	87	Peng, Liang	ThBPoT2.33	40
Patiti, Federico	FrBPoT10.3	92	Peng, Xi	FrGT7.3	122
Patra, Pravanjan	WeBPoT8.1	12		FrGT7.5	122
Patra, Rusha	FrET6.5	102	Pennati, Francesca	ThBPoT4.8	41
Patrono, Luigi	ThFPoT18.4	71	Pennati, Giancarlo	WeBPoT10.4	13
Patterson, Matt	ThGT21.1	78		FrBPoT4.17	89
	FrET2.3	100	Pennazza, Giorgio	WeBPoT24.4	20
Patti, Chanakya Reddy	WeBPoT3.15	9	Penzel, Thomas	WeAT17.1	C
Pattichis, Constantinos	WeAT8.1	3		WeAT17.3	6
	WeAT15.6	5		WeBPoT3.15	9
	WeBPoT25.8	20		WeCT20.3	26
	FrBPoT5.13	90		ThBPoT2.9	39
Pattichis, Marios	WeAT8.1	3		ThDT1.1	CC
	WeAT15.6	5		ThET1.1	CC
Patton, James (Jim)	WeCT1.3	20		ThGT1.1	CC
	ThAT10.3	35		ThGT1.2	73
Patz, Franz	ThET5.1	55	Pepa, Lucia	FrBPoT3.24	88
Patzak, Andreas	FrDT1.3	98	Perales, Alfredo	FrGT15.6	124
Paul, Bibhash Kumar	ThFPoT9.2	64	Péran, Patrice	SaBPoT3.28	137
Paul, Manoranjan	ThBPoT3.7	41	Peranton, Eleni	ThGT19.3	78
	FrFPoT1.4	106	Perantoni, Eleni	FrAT4.4	80
Paul, Michael	ThAT6.1	34	Peravali, Ravindra	FrGT19.4	125
Paul, Topon	FrBPoT20.6	96	Perazzolo, Simone	SaAT16.1	131
Paulk, Angélique C	SaAT3.1	127	Perdomo, Cesar	FrFPoT1.24	107
	SaAT3.3	127	Perdomo, Oscar Julian	FrFPoT1.24	107
Paulsen, Keith	SaBPoT2.25	136		FrFPoT1.29	108
Paulson, Kent	ThBPoT10.7	46	Pereira de Lemos Pinto, Marcela Maria	ThBPoT5.15	42
Paunio, Tiina	FrBPoT1.21	85	Pereira dos Santos, Fábio Rodrigo	FrFPoT5.34	115
Pavan, Elena Clio	WeBPoT20.5	17	Pereira, Joana	WeCT3.6	21
Pavan, Esteban E.	WeET11.4	30	Pereira, Michael	ThAT3.3	33
				SaBPoT6.44	143
			Pereira, Sérgio Rafael Mano	ThBPoT5.2	41
				ThBPoT5.23	43

Pereira, Ulysse	WeBPoT23.5	19	Piasecki, Alyssa	FrBPoT7.1	91
Perez Berenguer, Maria Elisa	FrBPoT2.8	86	Piazza, Matthew	FrFPoT9.36	120
Perez, Albany	WeAT13.5	5	Picard, Rosalind	WeET4.1	CC
Perez, Geovanny F	WeAT7.5	3		WeET4.3	27
Peréz, Wilson	ThAT12.6	36		FrBPoT3.28	88
Pérez-Fornos, Angelica	FrET15.2	104		FrBPoT20.1	96
Pérez-Ruzafa, Ángel	WeBPoT6.12	11		FrDT5.5	98
Peri, Elisabetta	ThBPoT18.7	50		FrET12.5	104
Peric, Djordje	WeBPoT10.3	13		FrFPoT1.31	108
Periyamolapalayam Allimuthu, Karthick	SaAT5.5	128	Piccoli, Federico	FrBPoT4.5	89
Perkins, Pete	WeBPoT23.7	19		FrBPoT22.4	97
Perriman, Diana	WeET6.6	28	Picconi, Daniela	SaAT10.3	130
	ThAT20.2	38	Pichiorri, Floriana	ThET4.3	55
Perron, Jacob Michael	FrBPoT15.6	94	Pichler, Gerald	WeET3.1	27
Perry, James	WeBPoT5.8	10	Pickering, Mark	WeET6.1	CC
Pesala, Bala	FrET1.1	100		WeET6.6	28
Pesce, Maurizio	WeAT16.1	5	Pidala, Sreenivasa Reddy	ThGT18.2	77
	ThAT16.3	37	Pienaar, Rudolph	WeAT9.3	3
Pesente, Silvia	SaBPoT2.38	136	Pierella, Camilla	ThFPoT12.29	67
Pester, Britta	ThGT17.1	77		FrFPoT4.21	112
	FrGT4.3	121	Pieretti, Stefano	ThFPoT18.4	71
Pestrov, Nikita	FrET15.5	104	Pierrache, L.H.M.	FrAT7.2	81
Petäkoski-Huitt, Tuula	FrET2.2	100	Pietilä, Julia	ThAT4.2	33
Peter, Coveney	SaAT16.5	131		ThDT2.5	52
Peter, Smitham	ThAT10.1	35	Pietka, Ewa	ThBPoT4.1	41
Peterchev, Angel V	WeAT10.1	C		FrBPoT5.5	90
	WeAT10.3	4	Pietrangelo, Sabino	FrAT9.1	81
	SaBPoT6.4	141		FrET1.4	100
Peters, Christiaan Hendrik Leonard	WeAT8.2	3	Pignataro, Salvatore	ThDT6.1	CC
Peters, Craig A.	WeAT7.3	3		ThDT6.2	53
Peters, Nicholas	WeET6.4	28		ThDT6.3	53
	FrET19.3	105		ThDT6.4	53
Petersen, Christian	FrBPoT3.10	87	Pilavaki, Evdokia	FrFPoT6.24	117
Peterson, Anna	ThBPoT10.5	46	Pilkar, Rakesh	SaBPoT6.40	143
Peterson, Joshua	SaDT11.8	147	Pillain, Axelle	SaBPoT2.6	135
Petit, Eric	WeBPoT5.4	10	Pilon Pessatti, Murilo	ThFPoT23.4	73
	FrFPoT2.24	109	Pilt, Kristjan	WeCT20.6	26
Petit, Yvan	WeBPoT10.5	13		FrBPoT8.1	91
	ThET9.1	57	Pimentel, Marco A.F.	FrBPoT3.7	87
	ThET9.1	C	Pinegger, Andreas	WeBPoT15.2	15
	ThET9.4	57	Pinho, Armando	FrAT17.6	83
Peto, Heather	ThBPoT16.1	49	Pinna, Andrea	WeAT8.3	3
Petracca, Andrea	FrET5.4	101	Pinna, Luigi	ThFPoT12.2	66
Petrakis, Euripides	FrBPoT19.7	96	Pinnock, Hilary	FrBPoT3.30	88
Petrarca, Maurizio	ThBPoT14.5	48	Pino, Esteban J	FrGT12.6	124
Petrenko, Timur	WeET10.6	30		SaAT9.5	130
Petropoulakis, Lykourgos	WeBPoT1.4	7		SaBPoT5.27	140
	ThAT7.5	34		SaBPoT6.36	143
Petroudi, Styliani	WeAT15.6	5		SaBPoT6.46	143
Petrova, Elena	ThBPoT9.14	46	Pinto Silva, Pedro Manuel	ThFPoT19.7	71
Petrovic, Jovana	ThFPoT11.1	65	Pinto, Adriano	ThBPoT5.23	43
Pettersen, Fred Johan	FrAT16.4	83	Pinto, Luís	SaAT19.6	132
Petti, Luisa	WeBPoT23.2	19	Pinto, Rosanna	WeBPoT9.7	13
Petti, Manuela	ThET4.3	55	Piola, Marco	ThAT16.3	37
Pettiti, Giuseppe	SaBPoT3.9	137	Pion-Tonachini, Luca	ThFPoT1.3	60
Petukhov, Dmitry	FrFPoT5.31	115		ThFPoT1.5	60
	FrFPoT5.39	116	Pirondini, Elvira	ThBPoT14.1	48
Peuscher, Jan	SaBPoT1.37	134	Pironet, Antoine	WeBPoT13.6	15
Peyret, Rémy	FrET16.2	104		FrBPoT11.6	93
Peyrin, Françoise	FrBPoT4.1	89	Pirris, Stephen	FrFPoT5.33	115
Pfister, Cornelia	FrET8.5	102	Pistuddi, Valeria	ThET18.1	59
Pfundtner, Stefan	FrBPoT1.20	85	Pittaccio, Simone	FrBPoT13.10	94
Pham, Hai Trieu	FrGT11.1	123		SaBPoT6.42	143
Pham, Toan	SaAT9.3	129	Pizzi, Rita	SaBPoT1.38	134
Pham, Tuan D.	FrFPoT2.4	108	Pizzo, Cecilia Maria	WeCT13.2	24
Phan, Anthony	ThFPoT12.20	67	Placek, Michal Marcin	FrFPoT1.26	107
Phan, John H.	WeAT9.4	3		FrGT18.2	125
	WeBPoT6.5	11	Plachta, Dennis T.T.	WeBPoT7.2	12
	FrBPoT9.3	92	Placidi, Giuseppe	FrET5.4	101
Phaohorm, Suttipong	ThBPoT9.4	45		SaDT4.1	145
Philby, Mona F.	ThBPoT2.20	40	Plataniotis, Konstantinos	WeET7.1	28
	ThFPoT11.8	66	Platt, Robert	ThET10.2	57
Phillips, Andrew J. K.	FrBPoT20.1	96	Pleșoianu, Carmen Elena	FrFPoT9.29	120
Phillips, Justin	ThBPoT9.12	46	Plesinger, Filip	FrBPoT11.2	92
	ThGT2.3	73	Plesoianu, Alexandru Florin	FrFPoT9.29	120
	SaAT8.2	129	Plewa, Katherine	SaBPoT1.10	133
Phua, Kok Soon	ThGT19.6	78	Plomp, Gijs	ThGT17.4	77
Phuphuk, Kiatiphong	ThBPoT9.3	45	Plourde, Eric	ThGT3.2	74
Phyo Wai, Aung Aung	SaAT10.1	130	PM, Nabeel	FrAT9.6	82
	SaAT15.6	131		FrET1.3	100
Pianu, Daniele	SaBPoT3.9	137	Podder, Tarun	ThBPoT22.3	51

Podtaev, Sergey	FrGT2.6	120	Pourhomayoun, Mohammad	ThAT12.2	36
Podziemski, Piotr	FrAT8.4	81	Pourmodheji, Hossein	FrET9.2	103
Poggesi, Anna	ThFPoT5.4	62	Pouryazdian, Saeed	WeAT5.4	2
Pohl, Antje	ThFPoT19.5	71		FrBPoT3.16	88
Pohl, Nils	ThFPoT19.5	71	Power, Dermot	ThGT21.1	78
Poigai Arunachalam, Shivaram	ThFPoT10.8	65		FrET2.3	100
Poignet, Philippe	WeCT6.2	22	Pozo Fortunic, Edmundo	WeCT6.6	22
	ThFPoT17.7	70	Pozzi, Simone	FrET17.2	105
	ThFPoT17.11	70	Pradat, Pierre-Francois	ThFPoT4.6	62
Poirier, Carl	FrBPoT9.10	92	Prado, André	FrFPoT9.7	119
Polania, Luisa F.	FrBPoT12.6	93	Prakash, Suriya	FrET1.1	100
Polat, Ovunc	FrFPoT4.31	113	Pramod, Siddharth	FrET9.3	103
Poli, Daniele	ThBPoT2.28	40	Prasad, Girjesh	WeBPoT1.10	8
Polimadei, Andrea	WeBPoT22.2	18		ThFPoT12.16	67
Polimeni, Jonathan	FrDT9.6	99	Prasad, S. S.	WeET7.6	29
Politi, Nicolo'	WeBPoT11.5	14	Prasad, Varesh	WeBPoT13.2	14
Politino, Consuelo	FrFPoT3.1	110	Prasanna, Lenka	ThBPoT13.13	48
Pollari, Mika	ThAT7.6	34	Prasanna, Prasanth	FrBPoT11.3	92
Pollonini, Luca	FrAT19.5	84	Prats-Boluda, Gema	SaBPoT3.28	137
	SaDT4.1	C	Pratt, Hugh	FrET15.6	104
Polo Koch, Andrea	SaDT14.2	147	Praud, Jean-Paul	WeCT13.3	24
Polydorides, Nick	WeBPoT4.3	9	Prawer, Steven	FrFPoT4.14	112
Polyzos, Demosthenes	WeBPoT10.6	13	Precup, Doina	WeBPoT20.10	18
	WeCT2.4	21		ThFPoT9.4	64
	WeCT2.5	21		ThFPoT9.5	64
	ThBPoT9.8	46	Presles, Benoît	ThBPoT4.3	41
Pompeo, Matthew	WeBPoT20.4	17	Presta, Marco	WeBPoT6.14	11
	ThFPoT3.7	61	Preston, Collin	ThBPoT5.3	42
Pomponiu, Victor	WeCT3.4	21	Pretty, Christopher G.	WeBPoT13.5	15
Pongthornseri, Ronachai	FrBPoT2.11	86		WeBPoT13.6	15
Pons, Jose Luis	FrET10.3	103		ThET16.6	58
Ponte, Serena	ThET10.5	57		ThFPoT9.6	64
Pontre, Beau	WeBPoT5.8	10		ThGT10.1	76
Ponzio, Michela	ThFPoT9.8	64		FrBPoT7.2	91
Poole-Warren, Laura A.	ThAT16.6	37		FrBPoT11.6	93
Poon, Carmen CY	ThFPoT7.1	63	Price, Karl	ThFPoT17.9	70
	FrDT1.4	98	Pries, Axel	FrBPoT4.13	89
Poosapadi Arjunan, Sridhar	ThBPoT3.10	41	Prieto, Luis	SaBPoT1.5	133
	FrBPoT2.20	86	Principe, Jose	ThBPoT3.8	41
Pop, Paul	FrDT16.1	C	Prior, Fred	ThAT18.4	37
	FrDT16.3	100	Priori, Alberto	FrAT3.1	79
Pop, Petre Gavril	SaAT21.6	133		FrAT3.6	80
Popescu, Mihail	ThBPoT24.1	51		SaBPoT1.4	133
Popovic, Milos R.	FrBPoT1.22	85	Prisk, Gordon Kim	FrET12.3	104
Popovic, Natasa	WeET6.3	28	Pritchard, Jeanette	WeBPoT14.8	15
Poppendieck, Wigand	FrET10.3	103	Privitzer, Pavol	ThBPoT23.1	51
Porcherot, Jean	WeET20.5	32	Procyk, Emmanuel	FrAT3.5	79
Porchet, Jacques-André	ThBPoT6.5	44	Proença, Martin	ThBPoT6.5	44
Porée, Fabienne	ThGT2.5	73	Promayon, Emmanuel	WeAT1.6	1
Porquis, Lope Ben	SaAT10.5	130	Protopappas, Vasilios C.	WeCT2.4	21
Porta, Alberto	WeAT13.1	4		WeCT2.5	21
	WeAT13.1	CC		ThBPoT9.8	46
	WeAT13.3	5	Prueckl, Robert	WeCT17.3	25
	WeCT18.1	25		FrAT11.6	82
	WeCT18.1	C	Psathas, Konstantinos	FrET15.3	104
	WeCT18.3	25	Pulenta, Luis	WeBPoT20.3	17
	WeET9.1	C	Puligheddu, Monica	ThET1.2	54
	WeET9.3	29	Pulizzi, Rocco	FrDT10.5	99
	WeET9.5	29	Pullano, Salvatore A.	FrFPoT4.4	112
	ThET18.1	59	Punet, Xavier	WeCT16.4	25
	ThET18.1	CC	Punithakumar, Kumaradevan	ThFPoT3.1	61
	ThET18.2	59	Purdon, Patrick	WeBPoT2.5	8
Portaccio, Iacopo	WeET10.3	29	Purdon, Patrick L	FrET17.6	105
Portaro, Rocco	WeBPoT12.4	14		FrGT4.6	121
	FrET21.5	106	Purnamasari, Prima Dewi	ThBPoT2.25	40
Positano, Vincenzo	FrBPoT2.23	87	Pustelnik, Nelly	WeET5.6	28
	SaBPoT2.34	136		ThAT4.1	33
Posteraro, Federico	SaBPoT5.2	139	Puthanmadam Subramaniam, Narayan	ThGT11.2	76
Postolache, Gabriela	WeAT20.4	7	Puthusserypady, Sadasivan	WeAT3.5	1
Postolache, Octavian	WeAT20.1	CC		WeBPoT3.13	9
	WeAT20.4	7		ThET5.3	56
	FrDT7.5	99	Putney, Joy	WeCT2.2	21
Potsika, Vassiliki	WeCT2.4	21	Puttemans, Steven	ThFPoT22.1	72
	WeCT2.5	21	Pyciński, Bartłomiej	ThBPoT4.1	41
Potter, Tom	WeBPoT4.5	9		FrBPoT5.5	90
Pouchoulin, Dominique	WeBPoT23.5	19	Pylatiuk, Christian	FrGT19.4	125
Pouliakis, Abraham	FrFPoT6.25	117			
	SaAT20.1	132			
Poupon, Cyril	WeAT19.6	7			
	FrFPoT2.17	109			
	FrFPoT9.26	119			

Q		
Qi, Hairong	WeBPoT2.7	8
Qi, Hongzhi	WeBPoT17.2	17
	ThGT3.6	74
Qi, Xiao	ThFPoT14.7	68
Qi, Xin	ThAT19.1	38
	ThBPoT5.17	42
	FrET16.4	104
Qian, Kai	SaBPoT6.35	143
Qian, Ming	ThET6.6	56
	FrGT7.3	122
Qian, Xin-Hong	FrBPoT24.2	97
Qian, Yi	WeBPoT13.8	15
Qin, Wei	ThBPoT2.27	40
Qin, Zhen	WeBPoT24.1	19
	WeBPoT24.2	19
	FrFPoT5.32	115
	FrGT9.6	123
Qiu, Chen	FrFPoT4.26	113
Qiu, Tian	ThFPoT17.18	70
Qiu, Weibao	ThET6.6	56
	FrGT7.3	122
Qiu, Yongqiang	FrFPoT5.30	115
Qu, Hongen	ThAT10.4	35
Qu, Xiaoting	ThFPoT14.4	68
Quagliini, Silvana	FrET20.5	106
	SaAT20.1	CC
Quan, Ying	WeCT8.3	23
Quaresima, Valentina	SaDT4.1	145
Quartulli, Rossella	ThFPoT5.3	62
Quatember, Bernhard	ThFPoT11.2	65
Quchao Zou, Cnqczou	FrGT19.2	125
Queiroz, Vinicius Augusto Pereira	ThGT5.4	74
Quek, Chai	SaAT10.1	130
Quellec, Gwenole	ThBPoT4.10	41
	FrET7.1	102
Querin, Osvaldo M.	SaBPoT5.34	140
Quicke, Peter	FrAT19.1	84
Quinlan, Leo	ThFPoT12.7	66
	FrFPoT8.15	118
Quinn, Emma	ThBPoT13.12	48
Quintal, Isabel	FrBPoT1.5	84
Quintero Montoya, Olga Lucia	FrBPoT2.8	86
Quondamatteo, Fabio	FrFPoT8.15	118
Quraishi, Sadeq A.	FrET17.6	105
Qureshi, Norman	WeET6.4	28
	FrET19.3	105
R		
R. Bueno, Diana	WeBPoT1.7	8
	FrBPoT2.18	86
Rabaey, Jan M.	ThAT20.1	38
Rabini, Rosa Anna	FrBPoT2.13	86
Rabinovich, Roberto	FrBPoT3.30	88
Rabotti, Chiara	FrAT18.3	83
	FrBPoT1.1	84
	FrFPoT4.41	113
	SaBPoT1.37	134
Raczynski, Lech	ThBPoT2.16	39
Rada, Hiram	WeBPoT23.5	19
Radermacher, Klaus	SaBPoT3.3	137
Radhakrishnan, Ravikumar	ThET2.6	55
Rahmati, Hodjat	ThGT4.6	74
Rahmouni, Lyes	ThET19.3	59
	SaBPoT2.6	135
Raif, Pawel	SaBPoT5.33	140
Raimondi, Manuela Teresa	WeET1.1	CC
	WeET1.2	26
Raja, Priyanka J.	WeET7.6	29
Rajamani, Rajesh	ThBPoT6.12	44
	FrGT12.3	124
Rajan, Ramesh	WeBPoT14.8	15
Rajasekaran, Vijaykumar	ThET8.3	56
Rajeswaran, T	WeBPoT13.3	14
Rajna, Zalán	WeBPoT5.2	10
Rajput, Kuldeep Singh	ThBPoT25.3	52
Ram, Keerthi	ThFPoT6.4	63
	FrAT7.1	81
Rama Raju, Venkateshwarla	FrFPoT4.43	114
	SaBPoT1.40	134
Ramachandra, L.	WeET7.6	29
Ramakrishnan, Swaminathan	WeBPoT25.10	20
	SaAT5.5	128
Ramantani, Georgia	FrBPoT14.4	94
Ramaraju, Sriharsha	WeCT3.2	21
	FrFPoT4.2	112
	FrFPoT4.3	112
Ramat, Stefano	WeET8.1	CC
	ThBPoT25.1	52
Ramirez, Mateo	FrET6.4	102
Ramirez-Elias, Miguel Ghebre	ThFPoT1.2	60
Ramos, Jaime	ThBPoT5.20	42
Ramos, João Pedro	ThAT12.3	36
Ramos-Castro, Juan	FrAT9.2	81
	FrAT9.3	82
	FrET20.6	106
Ramos-Murguialday, Ander	WeBPoT15.9	16
	WeET3.6	27
	WeBPoT6.22	12
Ramos-Pollan, Raul	ThGT18.6	77
Rampp, Alexander	ThAT2.3	33
RamRakhyani, Anil	ThGT2.3	73
Ramstad, Tor	FrGT5.6	121
Ramu, Palaniappan	WeBPoT25.10	20
Randazzo, Luca	WeBPoT15.17	16
Randhawa, Bubblepreet	ThFPoT12.24	67
Ranga, Yogesh	ThGT20.4	78
Ranganath, Venkatesh-Prasad	WeCT15.1	24
Rangayyan, Raj	WeBPoT6.3	11
	WeBPoT6.4	11
	ThFPoT6.6	63
Ranger, Bryan	FrET15.5	104
Ranieri, Maurizio	FrET15.2	104
Ranjan, Tanvi	ThGT16.4	77
Ranjbar Pouya, Omid	ThFPoT13.4	68
Rannou, Nicolas	WeAT9.3	3
Ranta, Radu	WeBPoT4.9	10
	ThET19.2	59
	FrET12.4	104
Rantzi, Marilyn	ThET18.1	59
Ranucci, Marco	WeBPoT3.9	9
Rao, Aravinda	FrFPoT2.11	108
Rao, Shyam Vasudeva	WeBPoT12.3	14
Rapaka, Saikiran	ThBPoT13.8	48
Rapeaux, Adrien	ThBPoT6.6	44
Rapin, Michael	WeCT4.1	21
Räsänen, Okko	FrFPoT6.18	117
Raskar, Ramesh	FrGT19.6	125
	FrBPoT2.12	86
Rasool, Ghulam	ThFPoT15.13	69
Rasouli, Mahdi	WeAT16.1	5
Rasponi, Marco	WeBPoT25.6	20
Rassias, Georgios	ThBPoT5.23	43
Rasteiro, Deolinda	WeAT19.3	6
Raszewski, Zbigniew	ThBPoT9.2	45
Rathi, Vishal	ThBPoT2.25	40
Ratna, Anak Agung Putri	WeCT5.5	22
Ratsep, Indrek	ThFPoT17.19	70
Raucent, Benoît	WeCT2.4	21
Raum, Kay	WeET13.4	30
Raupach, Rainer	SaBPoT3.7	137
Ravagli, Enrico	WeAT10.2	4
Ravazzani, Paolo	ThBPoT9.15	46
	ThBPoT13.2	47
	ThGT3.1	CC
Ravelli, Flavia	FrBPoT4.5	89
Ravi, Vidya	FrBPoT3.3	87
Ravikumar, Madhumitha	SaBPoT6.26	142
Ravinarayanan, Haribalaganesh	ThFPoT9.2	64
Ravindran, Sharon	FrFPoT8.1	117
	FrFPoT8.7	118
	FrFPoT8.9	118
Ray, Christopher	ThFPoT20.2	71
Ray, Supriyo	SaBPoT2.3	135
Raytchev, Bisser	WeBPoT6.19	12
	ThBPoT5.13	42
Raza, Haider	ThFPoT12.16	67
Razansky, Daniel	WeBPoT5.15	10
	SaDT6.4	146

Razavi, Reza	FrAT12.3	82	Riccardi, Silvia	ThET1.2	54
Razi, Abolfazl	FrBPoT10.5	92	Ricci, Elisa	WeET4.2	27
Readi, Nathalli	FrBPoT10.6	92	Richards, Daniel S	ThFPoT12.22	67
Rebeiro-Hargrave, Andrew	FrBPoT15.4	94	Richards, Rosie	FrBPoT17.2	95
Recheis, Wolfgang	ThDT2.6	52	Richardson, Robert	SaBPoT5.34	140
Redaelli, Alberto	ThFPoT11.2	65	Richer, Robert	FrBPoT2.26	87
	WeBPoT21.5	18	Richiardi, Jonas	ThDT4.2	52
	SaDT7.1	146	Richter, Chris	WeET8.3	29
Redarce, Tanneguy	WeBPoT18.2	17	Ricotti, Leonardo	WeAT16.6	6
Redel, Thomas	WeET7.2	28		ThBPoT19.5	50
Redelfs, Alisha H	SaDT8.2	146		ThDT10.1	C
Redfearn, Damian P	ThFPoT10.3	65	Riedel, Frederik	FrBPoT2.26	87
Redmond, Daniel	ThFPoT11.6	66	Riedner, Brady	FrBPoT1.20	85
	ThGT10.1	76	Rieger, Steffen	SaBPoT1.25	134
Redmond, Stephen James	ThFPoT8.5	64	Rieger, Viola	FrBPoT24.3	98
	FrBPoT21.5	97	Riehle, Timothy H	WeAT4.6	2
	FrDT2.5	98		FrGT20.6	126
	FrET19.1	105	Rigas, Georgios	WeBPoT10.7	13
	FrET19.1	CC		WeET2.1	27
Redouté, Jean-Michel	WeBPoT9.6	13		FrAT6.6	81
	ThGT20.1	78	Rigaud, Bastien	ThGT6.1	74
	FrAT9.4	82	Rigney, Stacey Mary	ThAT8.2	35
Reducindo, Isnardo	ThGT6.3	75	Rigoni, Marta	FrBPoT22.4	97
Rees, Stephen Edward	ThGT10.5	76	Riley, Thomas	SaAT18.3	131
Reggiani, Monica	ThBPoT18.12	50	Rincón, Francisco	WeET20.4	32
	SaBPoT6.44	143	Rinderknecht, Stephan	FrAT1.5	79
Reginatto, Brenda	ThGT21.1	78	Ring, Matthias	FrET5.2	101
	FrET2.3	100	Risetti, Monica	FrBPoT3.17	88
Reglin, Bettina	FrBPoT4.13	89	Riso, Arlindo	FrFPoT5.42	116
Rehmann, Daniel	WeCT15.4	24	Rissanen, Saara Mirjami	FrBPoT3.13	87
Rei, Luca	ThFPoT5.3	62	Rit, Simon	ThBPoT4.3	41
Reichlova, Tereza	FrBPoT11.2	92	Ritz, Lauren	ThGT2.4	73
Reilly, Richard	WeET18.4	32	Riva, Alberto	ThDT11.1	C
	FrAT11.1	82		ThDT11.3	54
Reindl, Leonhard	ThBPoT7.9	45		ThET16.1	C
Reinfelder, Samuel	ThGT4.2	74	Rivas, David	ThBPoT10.8	46
Reinsbach, Michael	ThFPoT6.5	63	Rivaz, Hassan	WeAT6.5	2
Reis, Victor Machado	WeBPoT22.7	19		ThET6.3	56
	WeBPoT22.8	19	Rivela, Diletta	WeET11.4	30
	ThFPoT11.5	66	Rivet, Bertrand	WeBPoT3.1	8
Reiss, Bjoern	FrET8.1	102		FrET4.1	101
Reith, Sebastian	FrGT12.4	124	Rivet, Francois	WeBPoT9.6	13
Reitz, Sarah Christina	ThFPoT5.13	63	Riviere, Cameron N.	ThFPoT17.8	70
Rejer, Izabela	FrGT5.1	121		SaAT1.4	127
	FrGT5.1	CC		SaBPoT5.36	141
Reljin, Natasa	ThET17.5	59	Rivolta, Massimo Walter	FrET2.1	100
Remuzzi, Andrea	WeET1.1	C	Riyahi Alam, Nader	FrFPoT2.9	108
Ren, Jian	ThAT19.1	38	Rizzi, Carlo	FrDT8.2	99
	ThBPoT5.17	42	Rizzi, Roberto	WeAT16.6	6
Ren, Pengling	ThBPoT1.1	38	Rizzo, Gaia	WeET19.3	32
	FrBPoT6.2	90	Rizzo, Giovanna	WeAT19.1	6
Ren, Shen	ThBPoT3.11	41		WeAT19.1	C
Renevey, Philippe	WeAT20.1	7		ThFPoT3.5	61
	SaAT17.2	131		ThGT6.1	C
	SaAT17.4	131		ThGT6.2	75
	SaAT17.6	131		FrET2.1	100
Reni, Gianluigi	WeCT4.6	22	Rizzo, Ludovica	SaBPoT2.12	135
	ThBPoT18.7	50	Rizzo, Rocco	WeBPoT18.1	17
	ThFPoT5.11	63	Robby, FNU	WeCT15.1	24
	FrGT3.6	121	Robert, Mlynski	SaBPoT8.14	144
Requena Carrion, Jesus	WeET18.3	32	Robert, Raymond	WeCT13.3	24
Rescio, Gabriele	FrFPoT8.6	118	Roberts, Deborah J.	FrFPoT3.28	111
	FrFPoT8.12	118	Roberts, Gareth	ThBPoT3.6	41
Ressom, Habtom	SaAT21.4	133	Robertson, Ian	ThAT3.2	33
Reulecke, Sina	WeET9.6	29		ThFPoT14.6	68
Reumann, Matthias	SaDT2.1	CC	Robinson, Brian	ThAT11.6	36
	SaDT2.4	145		ThET11.4	58
Revelos, Alex	FrFPoT6.18	117	Robles-Rubio, Carlos Alejandro	WeBPoT20.10	18
Reyes, Bersain Alexander	ThET17.5	59		ThFPoT9.5	64
	ThET17.6	59		SaBPoT4.5	138
Reyes, Mauricio	ThBPoT5.5	42	Robertella, Roberto	SaBPoT7.10	144
	ThBPoT5.22	43	Rocca, Maria Assunta	SaBPoT2.8	135
Reyna-Gutierrez, Ivan	ThBPoT18.4	50	Roccia, Elisa	WeET19.2	32
Reza, Faruque	WeCT19.6	26	Rocco, Giulia	SaBPoT2.12	135
Rezaei Nejad, Hojatollah	SaBPoT7.16	144	Rocha, Ana Patricia	WeBPoT21.11	18
Rezaie, Roozbeh	FrGT4.5	121	Rocha, Ana Paula	FrBPoT3.8	87
Rhode, Kawal	FrAT12.3	82		FrFPoT9.27	119
Ribas Ripoll, Vicent J.	FrBPoT9.7	92	Rocha, Luisa	FrBPoT13.3	93
Ribeiro, Lucas	FrET4.2	101	Rocha, Teresa	ThAT12.3	36
Riboldi, Marco	ThGT6.4	75		ThBPoT11.4	47
Riccardi, Giuseppe	WeCT9.3	23		FrBPoT20.2	96
	SaAT17.5	131			

Rockstroh, Max	FrFPoT6.10	116	Rossi, Simone	ThFPoT14.2	68
Rockwood, Amy	FrFPoT9.4	118	Rossi, Stefano	ThBPoT6.7	44
Rocon, Eduardo	FrET10.3	103	Rossi, Tommaso	WeET4.2	27
Rödbby, Kristian	ThBPoT6.4	44	Rossmann, Christian	FrFPoT5.5	114
Rode, Thilo	ThGT3.2	74	Rostosky, Rea	FrBPoT8.2	91
Rodgers, Geoffrey W	ThAT8.6	35	Rothermel, Albrecht	FrBPoT24.3	98
Rodic, Tomaz	WeBPoT10.3	13	Rothmund, Ralf	FrAT16.1	83
Rodpungpun, Sura	ThFPoT8.5	64	Rothwell, Dustin	WeET8.2	29
Rodrigo, Miguel	ThET4.1	55	Rott, Franz	ThGT18.6	77
Rodrigues Jr, Jose F	ThFPoT23.4	73	Rottmann, Markus	ThFPoT10.7	65
Rodrigues, Miguel R. D.	WeCT5.1	22	Rouat, Jean	ThGT3.2	74
Rodrigues, Pedro Luiz Coelho	ThET4.2	55	Rouhani, Faezeh	WeBPoT16.6	16
Rodriguez y Baena, Ferdinando	WeET1.6	26	Roula, Mohammed Ali	WeCT3.2	21
Rodriguez, Javier	WeAT13.6	5		FrFPoT4.2	112
Rodriguez, John	SaAT3.6	128		FrFPoT4.3	112
Rodriguez-de-Pablo, Cristina	ThFPoT12.19	67	Rousset, Florian	FrBPoT4.1	89
Rodriguez-Villegas, Esther	WeAT17.6	6	Rouyer, Julien	WeCT6.6	22
	FrBPoT2.1	85	Rouzaut, Ana	SaAT19.4	132
Roederer, Alexander	WeCT4.4	21	Rowley, Chris	SaDT14.2	147
Roesch, Karin	FrGT19.6	125	Roxby, Daniel Ninio	ThAT20.4	38
Rogowska, Marta Ewa	FrBPoT4.6	89	Roy Chowdhury, Shubhajt	WeBPoT21.1	18
Roh, Se-gon	ThGT8.6	75		WeET5.3	28
Roh, Taehwan	WeBPoT21.7	18		ThBPoT13.5	47
Rohé, Lucas	SaBPoT3.3	137	Roy, Pallab	ThBPoT5.8	42
Rojas, Diana Marcela	ThBPoT16.2	49	Roy, Prasun Kumar	ThBPoT3.2	40
Rolandí, Ranieri	ThAT16.1	37	Roy, Raphaëlle N.	FrET17.5	105
Roldan, Jay Ryan	FrAT10.1	82	Roy, Roland	WeBPoT16.2	16
Rolfe, Peter	SaBPoT1.21	134	Roy, Sébastien	ThFPoT8.3	64
Rolink, Jerome	WeAT17.5	6	Roy, Shuvo	ThGT2.4	73
Rollo, Enrica	FrFPoT3.36	111	Roychowdhury, Sohini	ThFPoT6.5	63
	SaBPoT3.32	137	Rubega, Maria	WeCT5.2	22
Romain, Olivier	ThFPoT4.6	62		ThAT5.5	34
Roman, Godoy, Claudio Esteban	WeAT19.6	7	Rubin, Daniel	FrBPoT6.1	90
	FrFPoT2.17	109		SaAT6.6	129
Romanelli, Marco	FrFPoT3.1	110	Rubin, Marcie	ThAT7.4	34
Roman-Jimenez, Geoffrey	WeET19.1	32	Ruble, Stephen	ThDT7.3	53
Romano, Fausto	ThBPoT25.1	52	Rucker, Daniel Caleb	ThGT8.1	75
Romay, Eduardo	FrBPoT9.7	92	Ruddy, Bryan	FrET21.2	106
Romeo, Alessia	SaAT12.3	130		SaAT9.3	129
Romeo, Luca	SaAT15.2	130	Rudmann, Linda	WeBPoT14.9	15
Romeo, Rocco Antonio	FrBPoT16.5	95		FrET10.5	103
Romero Santiago, Alejandro E.	FrBPoT4.9	89	Rudnicka, Alicja R	ThGT7.1	75
Romero-Ortega, Mario	WeBPoT14.1	15	Ruffaldi, Emanuele	WeCT6.3	22
	WeBPoT14.2	15		ThFPoT22.8	72
Romkema, Sietske	FrET11.1	103	Ruggeri, Alfredo	ThGT7.1	C
Roney, Caroline	WeET6.4	28		ThGT7.4	75
	FrET19.3	105		FrAT7.1	CC
Ronsky, Janet L.	ThBPoT10.7	46		FrBPoT4.13	89
Rooijakkers, Michael Johannes	SaBPoT1.37	134		FrFPoT2.1	108
Roos, Michael Markus	FrET8.3	102		FrFPoT2.2	108
Rosa, Agostinho Claudio da	ThFPoT14.4	68	Ruggiero, Carmelina	ThAT16.1	37
Rosa, Claudio	WeBPoT22.7	19		ThAT16.1	C
	WeBPoT22.8	19	Ruggiero, Marco	SaAT19.2	132
	ThFPoT11.5	66	Ruiz Fernandez, Daniel	WeAT9.1	3
Rosa, Manuela	FrAT3.6	80		WeAT9.5	3
	SaBPoT1.4	133	Ruiz Vélez, Leidy Mariana	FrGT5.3	121
Rosa, Marcello	WeBPoT14.8	15	Ruiz-España, Silvia	WeCT7.6	22
Rosales, Licet	FrET12.4	104		WeET7.4	28
Rosas, Maria José	WeBPoT21.11	18		ThBPoT5.26	43
	ThBPoT13.11	48		ThFPoT5.5	62
Rosati, Samanta	WeBPoT23.4	19		ThFPoT5.8	62
	WeBPoT25.4	20	Ruiz-Sanchez, Francisco Jose	SaBPoT6.45	143
Rosell-Ferrer, Javier	FrBPoT11.7	93	Ruminski, Jacek	WeCT8.5	23
Rosen, Jacob	FrAT10.1	82		ThFPoT18.5	71
Rosenbaum, Blake	SaAT3.2	127	Ruonala, Verner Matias	FrBPoT3.13	87
Rosendahl, Philipp	WeET1.3	26	Ruschin, Detlef	FrGT20.2	125
Rosenfeld, Jeffrey V.	WeBPoT14.8	15	Rusconi, Francesca Maria Emilia	SaBPoT5.3	139
Rosenow, Joshua	ThGT11.1	76	Rusczyk, Lilian	FrFPoT4.37	113
Rosenstiel, Wolfgang	WeBPoT15.9	16	Rushdi, Muhammad	SaAT7.3	129
Rosenthal, Eric	FrBPoT20.3	96	Russo, Cesare	FrFPoT9.20	119
Rosenwein, Tal	FrBPoT1.17	85	Rutigliano, Teresa	SaBPoT1.38	134
	FrGT17.5	125	Rutkowski, Tomasz	WeBPoT15.6	16
Ross, Callum	ThGT11.2	76		WeET3.1	C
	ThGT11.3	76		WeET3.2	27
Rosseland, Leiv Arne	FrBPoT1.14	85		WeET3.3	27
Rossi, Dario	SaAT10.3	130		ThBPoT22.4	51
Rossi, Laura	SaBPoT6.22	142	Ruud, Tom Erik	FrFPoT3.6	110
Rossi, Lorenzo	FrAT3.6	80	Rymer, William Zev	FrBPoT2.12	86
Rossi, Matteo	FrBPoT16.1	95		FrFPoT4.44	114
Rossi, Michele	ThFPoT2.12	61	Ryu, Hyunryul	FrFPoT4.19	112
	FrAT17.3	83		SaBPoT3.11	137

Ryu, Jaeyoung	WeBPoT23.6	19
Ryu, Stephen	WeAT3.6	1
	WeBPoT15.4	15
	FrGT10.1	123
Ryzhii, Elena	ThFPoT10.5	65
Ryzhii, Maxim	ThFPoT10.5	65

S

S, Edward Jero	WeBPoT25.10	20
S, Harisankar	FrFPoT9.15	119
S. Salem, Wedad	FrFPoT2.27	109
S. Souza, Wellington	FrFPoT2.31	109
Saad, Mohamed Nagy	SaDT21.1	147
Saad, Naufal	FrBPoT2.7	86
Saavedra, Francisco	FrFPoT3.35	111
	SaBPoT6.46	143
Saavedra, Francisco José Félix	ThFPoT11.5	66
Sabater-Navarro, Jose Maria	FrFPoT9.1	118
	FrFPoT9.2	118
Sabatini, Angelo Maria	ThGT4.4	74
Sabatini, Umberto	ThGT19.3	78
Sabbaghi Mahmoudi, Sahar	ThBPoT5.19	42
Sabbatani, Paolo	FrET6.2	102
Saber, Hooshang	ThBPoT20.2	51
Saber, Nahid	WeAT9.6	3
Sabouni, Abas	FrBPoT24.4	98
	FrFPoT2.18	109
	FrFPoT2.19	109
	FrFPoT2.20	109
	FrFPoT9.33	120
	SaBPoT2.3	135
Sacchetti, Rinaldo	ThFPoT15.12	69
	FrBPoT16.5	95
Sacchi, Lucia	WeCT8.1	CC
	WeET12.2	30
	WeET12.4	30
	SaAT20.4	132
Saccomandi, Paola	WeBPoT22.1	18
	WeBPoT22.2	18
	WeBPoT22.3	18
	WeCT13.2	24
	FrBPoT16.5	95
	SaAT6.2	128
Sacconi, Leonardo	FrGT19.3	125
Sacr�, Pierre	ThFPoT13.7	68
Sacristan, Emilio	ThET13.1	58
Saddow, Stephen	ThFPoT23.4	73
Sadeghimorad, Amirahadi	SaBPoT5.38	141
Sadighi, Mehdi	WeBPoT4.1	9
Sadimin, Evita	ThBPoT5.17	42
Sadleir, Rosalind	ThAT2.4	33
	ThAT2.5	33
	ThBPoT13.6	47
Sadr, Nadi	FrGT17.1	124
	FrGT17.2	124
Saeki, Shunichi	FrFPoT9.24	119
S�elid, Steinar	ThBPoT2.8	39
Saemann, Marcus D.	ThAT5.4	34
Saenz-Cogollo, Jose Francisco	ThBPoT7.10	45
S�ersten, Joar	FrET9.5	103
Saey, Tom	WeBPoT6.15	11
Safabakhsh, Hamidreza	ThFPoT5.12	63
	FrFPoT2.9	108
Safdar, Nabile	WeAT7.3	3
Safont, Franck	WeBPoT14.5	15
Saga, Norihiko	SaBPoT5.17	140
Sagawa, Ryusuke	SaAT8.1	129
Sage, Micha�l	WeCT13.3	24
Sa�iro�lu, Mahmut �amil	FrBPoT9.1	91
Saha, Shumit	WeET18.6	32
Sahin, Ismail	SaBPoT5.38	141
Saiano, Mario	FrAT10.4	82
Saijo, Yoshifumi	ThAT6.2	34
	FrBPoT5.1	90
Saito, Itsuro	SaBPoT4.24	139
Saito, Masashi	SaBPoT4.16	138
Saitoh, Youichi	ThFPoT5.9	62
Sajib, Saurav Z K	SaBPoT2.17	135
Sakai, Hidenori	SaBPoT3.15	137

Sakai, Koji	FrET10.1	103
Sakai, Naomi	SaBPoT7.14	144
Sakaki, Kouji	ThFPoT15.4	69
Sakamoto, Takafumi	SaBPoT4.12	138
	SaBPoT4.14	138
Sakata, Mami	FrFPoT8.16	118
Sakellarios, Antonis	WeBPoT10.7	13
	WeBPoT12.5	14
	FrAT6.6	81
	FrBPoT12.1	93
	FrBPoT12.2	93
Sakhavi, Siavash	ThAT17.6	37
Sakkalis, Vangelis	WeBPoT25.7	20
	FrBPoT19.7	96
Sakoda, Shintaro	ThAT9.4	35
Sakota, Daisuke	WeAT12.3	4
	ThFPoT4.1	62
	FrBPoT7.3	91
Sakriani, Sakti	ThBPoT2.14	39
Saku, Keita	ThDT7.2	53
	SaBPoT4.12	138
	SaBPoT4.13	138
	SaBPoT4.14	138
Sakuma, Ichiro	WeCT15.5	24
	FrFPoT2.8	108
Sakuma, Takuto	FrAT4.1	80
Sakurai, Takeru	ThFPoT15.7	69
Salamin, Fanny, Fanny Salamin	WeAT15.2	5
Salas, Rachel	FrBPoT14.1	94
	FrBPoT14.2	94
Salas-Garcia, Irene	FrAT2.3	79
	FrBPoT23.4	97
Salazar e Fernandes, Thiago	ThBPoT5.15	42
Saleh, Neven	WeBPoT20.9	18
Salehi, Sahar	SaAT9.2	129
Salerno, Luca	WeBPoT11.2	14
	ThGT16.1	76
Sales, Francisco	ThGT18.5	77
Salinari, Serenella	FrBPoT3.18	88
Salito, Caterina	ThBPoT4.8	41
	FrBPoT6.8	91
Salmon, Isabelle	FrGT19.5	125
Salomon, Pawel	WeBPoT15.12	16
Salvador, Ricardo	ThAT15.1	36
	FrBPoT23.2	97
	FrBPoT24.5	98
	FrFPoT4.8	112
Salvadori, Emilia	ThFPoT5.4	62
Salvatore, Marco	ThBPoT5.24	43
Salvo, Pietro	FrFPoT3.1	110
	FrGT12.5	124
Samanipour, Roya	SaBPoT7.16	144
Samavi, Shadrokh	ThBPoT5.29	43
	ThFPoT3.3	61
	SaAT6.4	128
Sambo, Francesco	WeET12.1	30
Samek, Wojciech	WeET4.5	27
Sameshima, Koichi	ThGT17.3	77
	ThGT17.6	77
Samin, Shadman	ThGT21.2	78
Samineni, Anvesh	ThBPoT21.1	51
Samir, Ahmed	SaBPoT1.24	134
Sammali, Federica	FrBPoT1.1	84
	FrFPoT4.41	113
Samo, Kazuki	FrFPoT2.6	108
Sampaio, Paula	FrBPoT4.7	89
Sampietro, Marco	ThBPoT7.11	45
Samykit, Markus	ThFPoT24.3	73
Samy, Lauren	ThAT12.2	36
	FrGT17.4	125
Sanada, Ippei	WeBPoT20.1	17
Sanada, Makoto	SaBPoT5.16	140
	SaBPoT8.7	144
Sanchez de la Rosa, Ruben	FrET7.1	102
S�nchez Garc�a, Ana Bel�n	WeBPoT25.5	20
S�nchez-Ferro, Alvaro	FrGT6.4	122
S�nchez-S�nchez, Mariluz	ThFPoT12.14	66
S�nchez-V�zquez, Francisco Javier	WeBPoT6.12	11
Sands, Scott Aaron	ThGT1.4	73
Sanei, Saeid	ThFPoT14.11	69
	FrET4.5	101

Sangcheol, Na	FrFPoT4.19	112	Sassi, Roberto	WeAT18.1	C
	SaBPoT6.18	142		WeAT18.2	6
Sanger, Terence David	WeET11.2	30		WeAT18.6	6
	ThDT8.4	53		WeBPoT1.1	7
Sangeux, Morgan	FrAT1.3	79		WeCT20.1	CC
Sanguineti, Giuseppe	ThGT6.6	75		FrET2.1	100
Sanguineti, Vittorio	WeAT11.1	4	Satgunam, PremNandhini	ThFPoT21.2	72
	FrAT10.1	CC	Sathar, Shameer	WeCT2.3	21
	FrAT10.4	82		SaAT16.3	131
Sankai, Yoshiyuki	ThFPoT15.7	69	Sato, Asako	FrFPoT3.5	110
Sannino, Giovanna	FrGT20.1	125	Sato, Hironori	WeBPoT1.11	8
Sano, Akane	WeET4.3	27	Sato, João Ricardo	WeCT19.4	26
	FrBPoT3.28	88	Sato, Jun-ichi	WeBPoT3.3	8
	FrBPoT20.1	96	Sato, Kazunori	WeBPoT5.5	10
	FrFPoT1.31	108	Sato, Ryo	ThAT9.5	35
Sano, Hiroya	FrFPoT1.20	107	Sato, Takayuki	SaBPoT2.18	135
Sano, Kumpei	SaBPoT7.11	144	Sato, Tetsuo	ThFPoT8.2	64
Sano, Yuko	ThAT10.2	35		FrFPoT2.35	109
Sanomura, Yoji	FrAT19.4	84		SaBPoT6.33	142
Santamarta, David	ThFPoT2.14	61		SaBPoT8.11	144
Santambrogio, Marco	SaBPoT1.32	134	Sato, Toru	FrBPoT5.7	90
Santana-Gómez, César E.	FrBPoT13.3	93	Sato, Yamato	ThGT9.6	76
Santangelo, Maria Francesca	SaBPoT2.27	136		SaBPoT5.23	140
Sant'Anna, Guilherme Mendes	WeBPoT20.10	18	Sato, Yoshikuni	FrFPoT4.13	112
	ThFPoT9.4	64		SaBPoT1.17	133
	ThFPoT9.5	64	Sato, Yota	ThGT9.6	76
Santara, Anirban	ThBPoT5.21	42		FrBPoT18.3	95
Santarelli, Maria Filomena	FrGT7.1	C		SaBPoT5.23	140
	FrGT7.6	122	Satoshi, Nakamura	ThBPoT2.14	39
	SaBPoT2.34	136	Saturnino, Guilherme B	WeAT10.1	3
Santello, Marco	FrGT10.5	123	Saunders, Fraser W.	ThFPoT12.17	67
Santiago, Carlos	FrET19.5	105	Saure, Emma	FrBPoT1.21	85
Santiwong, Peerapong	ThBPoT15.1	49	Sauseng, Paul	FrGT4.2	121
Santonico, Marco	WeBPoT24.4	20	Sauwen, Nicolas	FrET4.6	101
Santonicola, M. Gabriella	ThFPoT8.1	64	Savic, Andrej	ThFPoT12.19	67
	SaBPoT3.24	137	Savino, Ketty	FrET20.4	106
Santoro, Matteo	WeBPoT22.9	19	Savio Paul, Nirmal	FrET1.1	100
Santos Pereira, Vinicius Felisberto	ThBPoT12.6	47	Savoia, Alessandro Stuart	WeAT6.4	2
Santos, Miriam	SaAT19.6	132	Sawada, Mayumi	SaBPoT5.5	139
Sanwald, Julia	ThET16.1	58	Sawada, Yuriko	FrFPoT5.29	115
Saotome, Kousaku	WeBPoT19.3	17	Sawan, Mohamad	WeET15.4	31
Sapata, Tiago	FrBPoT1.5	84		WeET16.1	31
Sapkota, Achyut	FrFPoT5.28	115		ThDT16.2	54
Saquicela, Victor	ThAT12.6	36		FrET9.4	103
Sarabi, Masoud	ThBPoT2.6	39	Sawardekar, Siddhant	WeAT7.1	2
Sarac, Ferdi	SaAT21.1	132	Sawlekar, Rucha	WeBPoT11.4	14
Sarasola-Sanz, Andrea	WeBPoT15.9	16	Sawodny, Oliver	ThBPoT2.15	39
	WeET3.6	27		ThET16.1	58
Saraydaryan, Jacques	ThFPoT20.4	71		ThGT16.3	77
Sardi, Francesca	ThBPoT25.1	52		FrAT16.1	83
Sareh, Sina	SaAT12.6	130	Saxena, Anupam	ThFPoT12.16	67
Saribudak, Aydin	ThFPoT9.10	64	Sayed, Khaled	ThGT5.2	74
Saripalle, Sashi	FrBPoT16.2	95	Sayenko, Dimitry	WeBPoT16.2	16
Sarkar, Achintya Kumar	FrBPoT13.2	93	Sayer, Robin	ThBPoT1.4	38
Sarkar, Atasi	ThGT16.5	77	Sazonov, Andrei Vladimirovich	WeBPoT3.7	9
Sarkar, Nilanjan	ThET3.3	55	Sazonov, Edward	WeAT20.1	C
Sarkar, Soumajyoti	ThFPoT14.10	68		ThFPoT21.6	72
Särkelä, Mika	WeCT5.5	22		FrAT10.3	82
Sarlabous, Leonardo	WeCT13.5	24		FrGT9.3	123
	FrBPoT19.2	96	Sboros, Vassilis	WeAT6.3	2
Sarma, Sridevi V.	ThFPoT13.7	68		FrAT20.5	84
	FrBPoT14.1	94		FrET7.4	102
	FrBPoT14.2	94	Sburlea, Andreea Ioana	WeBPoT1.8	8
Sarrafzadeh, Majid	ThAT12.2	36	Scacchi, Simone	WeAT2.2	1
	FrGT17.4	125		WeAT2.4	1
Sarrazin, Johan	WeAT1.6	1	Scaccianoce, Elisa	SaBPoT2.24	136
Sarrut, David	ThBPoT4.3	41	Scaini, Alberto	FrGT3.1	120
Sartor, Francesco	FrGT15.5	124	Scalco, Elisa	ThFPoT3.5	61
Sartori, Claudio	ThBPoT6.5	44		ThGT6.2	75
Sartori, Massimo	ThBPoT18.12	50		ThGT6.6	75
Sarvas, Jukka	WeAT10.4	4	Scanarotti, Chiara	ThAT16.1	37
Sasagawa, Kiyotaka	ThBPoT12.2	47	Scannella, Alessia	WeET11.4	30
	FrFPoT2.36	109	Scano, Alessandro	FrAT10.2	82
Sasai-Sakuma, Taeko	FrFPoT5.29	115	Scarabottolo, Nello	WeBPoT1.1	7
Sasaki, Tsukasa	ThET9.3	57	Scarpa, Fabio	ThFPoT2.3	60
Sasaki, Yusuke	SaBPoT5.29	140		FrFPoT2.1	108
Sasano, Tetsuo	FrET7.5	102	Scarsi, Francesca	ThFPoT14.9	68
	FrFPoT5.29	115	Schaefer, Gregor	FrAT16.2	83
			Schaer, Roger	WeAT15.2	5
			Schäfer, Patrick Johannes	ThFPoT12.25	67
			Schafermeyer, Erich	ThGT21.2	78

Scharinger, Josef	WeCT17.3	25	Schrooten, Maarten	WeET17.3	31
	FrAT11.6	82	Schubert, J. Kristof	FrBPoT4.9	89
Schebtsdat, Erik	FrFPoT4.37	113		SaAT18.4	132
Scheffer, Cornie	WeBPoT21.9	18	Schuck, P. James	WeBPoT7.5	12
	FrAT2.4	79	Schuck, Renaud	FrAT19.1	84
	FrFPoT7.3	117	Schuetzler, Martin	WeBPoT7.1	12
Scheidt, Robert A.	FrFPoT4.24	113		WeBPoT7.2	12
Schelkens, Peter	WeAT6.2	2	Schulcke, Benjamin	ThGT10.3	76
Scheme, Erik	FrET18.5	105	Schultz, Simon R	ThET3.4	55
Schena, Emiliano	WeBPoT22.1	18		FrAT19.1	84
	WeBPoT22.2	18	Schultz, Tanja	ThBPoT2.31	40
	WeBPoT22.3	18	Schulz, Steffen	ThBPoT3.3	40
	WeCT13.2	24	Schulze, Elisabeth	ThFPoT7.7	64
	ThAT15.3	36	Schulze-Bonhage, Andreas	FrBPoT14.4	94
	FrBPoT16.5	95	Schumann, Andy	FrBPoT3.11	87
	SaAT6.2	128	Schuy, Jochen	FrAT1.5	79
Schenk, Martin	FrAT16.1	83	Schwarcke, Lorenzo	FrBPoT15.4	94
Schenk, Tyler	FrFPoT6.26	117	Schwartz, Benjamin	ThAT2.4	33
Scherer, Reinhold	WeBPoT15.1	15	Schwartz, Fernando	WeBPoT2.7	8
	ThAT3.4	33	Schwartz, Peter J.	WeAT13.3	5
Schetelig, Daniel	SaBPoT2.26	136	Schwarz, Andreas	WeBPoT15.1	15
Schets, Marjolein	FrBPoT19.1	95	Schwarz, Janina C. V.	SaBPoT2.39	136
Schettni, Francesca	FrBPoT3.17	88	Schweikard, Achim	FrET5.3	101
Schiappacasse, Andrea	WeBPoT22.9	19	Schweisfurth, Meike Annika	FrET11.6	103
Schieban, Konrad	WeCT10.6	23		SaBPoT6.25	142
Schiecke, Karin	FrGT4.3	121	Schweizer, Anja	FrFPoT1.28	108
Schima, Heinrich	SaDT7.3	146	Schwentner, Christian	FrAT16.1	83
Schinaia, Lorenzo	ThET10.1	57	Schwerdtfeger, Karsten	FrBPoT4.9	89
Schipping, Walter	WeET3.1	27	Schwickert, Lars	ThGT4.5	74
Schirinzi, Gilda	ThBPoT5.30	43	Sciacchitano, Alessio	ThFPoT12.29	67
Schiza, Eirini	WeBPoT25.8	20	Scifo, Paola	WeAT19.1	6
Schizas, Christos	WeBPoT25.8	20	Scilingo, Enzo Pasquale	WeAT13.4	5
Schlaefer, Alexander	SaBPoT2.26	136		WeET5.2	28
Schlamelcher, Jan	WeCT15.2	24		WeET20.6	32
Schlarb, Heiko	ThGT18.6	77		ThAT8.1	35
Schlemmer, Alexander	ThET18.6	59		ThFPoT14.2	68
Schlichting, Stefan	WeCT15.3	24		FrAT12.1	CC
Schlink, Bryan	FrFPoT4.28	113		FrAT12.4	82
	SaBPoT6.27	142		FrBPoT2.24	87
Schlosser, Steven	ThBPoT5.7	42		FrBPoT2.25	87
Schmalstieg, Dieter	ThAT7.6	34	Scipioni, Michele	SaBPoT2.34	136
Schmid, Alexandre	SaBPoT1.26	134	Sciuto, Emanuele Luigi	SaBPoT2.27	136
Schmid, Jochen	SaBPoT2.19	135	Sciuto, Salvatore Andrea	FrBPoT5.3	90
Schmid, Maurizio	WeAT11.3	4		FrET2.5	100
	ThBPoT14.5	48	Sclocco, Roberta	WeCT4.6	22
	FrET2.5	100		ThFPoT13.2	68
Schmid-Hertel, Nicole	ThGT17.1	77		FrDT9.3	99
Schmidt, Christian	SaBPoT6.17	142		FrDT9.5	99
Schmidt, Christoph	ThGT17.1	77		FrDT9.6	99
Schmidt, Gerhard	ThFPoT5.10	62	Scopelliti, Matteo Giuseppe	FrFPoT3.29	111
	ThFPoT5.13	63	Scorpecci, Alessandro	WeCT10.5	23
	FrBPoT3.29	88	Scorza, Andrea	FrBPoT5.3	90
Schmidt, Thomas	FrBPoT20.8	96		FrET2.5	100
	SaDT2.1	145	Secco, Andrea	ThFPoT18.4	71
Schmit, Brian	ThFPoT12.15	67	Sedai, Suman	ThBPoT5.8	42
Schmitt, Claus	ThFPoT10.7	65	Seddik, Ahmed	SaBPoT1.24	134
Schmitt, Daniel	FrFPoT3.26	111	Sedighe, Kahrizi	ThET9.5	57
Schneider, Jakob	WeCT5.3	22	Segagni, Daniele	WeET12.2	30
	ThBPoT13.16	48		WeET12.4	30
Schneider, Jochen	FrFPoT3.26	111		SaAT20.4	132
Schneider, Sussane	FrBPoT3.29	88	Seghouane, Abd-krim	ThFPoT5.6	62
Schnitzler, Alfons	SaAT18.5	132		FrAT11.5	82
Schoebel, Christoph	ThGT1.2	73	Seguel, Daniel	WeAT19.6	7
Schoeller, Dale	SaDT8.4	146	Segura, Carlos Alejandro	SaAT3.6	128
Schoentgen, Jean	FrBPoT2.24	87	Seider, Daniel	ThAT7.6	34
Schofield, Claire Francis	ThDT8.2	53	Seidler, Harald	WeET5.5	28
Schölkopf, Bernhard	FrET3.6	101		ThFPoT12.25	67
	FrGT10.4	123		FrFPoT4.37	113
Schöllig, Christina	FrAT16.1	83	Seidler-Fallböhmer, Birgit	WeET5.5	28
Schöls, Ludger	FrET3.6	101		ThFPoT12.25	67
Schoot, Benedictus Christiaan	FrBPoT1.1	84	Seifert, Gregory John	FrAT8.1	81
Schormans, Matthew James	ThGT20.6	78	Seifert, Jennifer	WeBPoT14.1	15
Schotten, Ulrich	FrAT8.4	81	Sejling, Anne Sophie	ThAT5.5	34
	FrGT18.3	125	Seker, Huseyin	FrET16.1	104
Schreier, Guenter	FrBPoT21.4	97		FrET16.1	C
	FrBPoT21.5	97		FrGT16.1	124
	FrDT7.2	99		FrGT16.1	C
Schrempf, Andreas	ThFPoT24.3	73		FrGT16.6	124
	ThFPoT24.4	73		SaAT21.1	132
Schretter, Colas	WeAT6.2	2		SaAT21.1	C
Schröder, Lea	FrBPoT2.26	87		SaAT21.2	133
				SaAT21.3	133

Seketa, Goran	SaDT14.3	147	Sgaglione, Luigi	ThBPoT5.12	42
Sekiguchi, Hiroyuki	ThFPoT6.9	63	Sgandurra, Giuseppina	FrGT3.2	120
Sekihara, Kensuke	FrET7.5	102	Sgroi, Giovanni	FrBPoT22.6	97
Sekimoto, Masahiro	SaBPoT6.12	141	Sha, Ying	FrBPoT9.3	92
Sekine, Masaki	ThGT2.1	73	Sha, Zhiyi	FrBPoT3.20	88
	ThGT21.4	78		FrBPoT13.7	93
	FrFPoT4.25	113	Shabany, Mahdi	WeET3.4	27
	SaBPoT4.11	138	Shafiq, Ghufuran	ThBPoT3.9	41
Sekino, Masaki	ThBPoT7.4	44	Shafti, Ali	ThFPoT17.4	70
	ThFPoT5.9	62		SaAT12.6	130
	SaBPoT4.24	139	Shah, Adnan	ThFPoT5.6	62
Sekitani, Tsuyoshi	ThBPoT7.4	44		FrAT11.1	C
	SaBPoT4.24	139		FrAT11.5	82
Selishchev, Sergey	ThFPoT4.5	62	shah, Amit	WeCT1.3	20
Sellers, Kristin K.	ThET18.5	59	Shah, Syed Taimoor Hassan	ThBPoT19.2	50
Seltzer, Laurie E.	FrBPoT3.21	88	Shahdoost, Shahab	WeET15.5	31
Selvaraj, Kulasekaran	FrAT7.1	81	Shahmohammadi, Farhad	ThAT12.2	36
Selvaraj, Nandakumar	ThBPoT6.8	44	Shajahan, T K	ThET18.6	59
Selvaraj, Senthil Kumar	ThBPoT23.5	51	Shakesheff, Kevin	ThBPoT16.1	49
Semary, Noura	ThFPoT4.3	62	Shalhaf, Farzaneh	ThAT2.2	33
Semenzato, Nicolas	WeBPoT23.5	19	Shalish, Wissam	WeBPoT20.10	18
Seminara, Lucia	ThFPoT12.2	66		ThFPoT9.4	64
Semprini, Marianna	WeAT3.1	1		ThFPoT9.5	64
	WeAT11.6	4	Shamaei, Kamran	ThFPoT17.10	70
Sen, Anish	FrAT3.3	79	Shamloo, Amir	ThET16.4	58
Sen, Ipek	ThGT18.3	77	Shamsollahi, Mohammad Bagher	FrBPoT3.14	88
Senda, Kei	FrBPoT18.3	95	Shan, Zhirui	FrBPoT5.12	90
Sengers, Bram G.	SaAT16.1	131	Shand, Fiona	FrET20.2	106
Sengupta, Nilapratim	SaAT16.6	131	Shanechi, Maryam	WeBPoT15.13	16
Sengupta, Sanghamitra	ThGT16.5	77		WeCT11.2	24
Senhadji, Lotfi	ThFPoT14.12	69		WeET10.5	29
	FrET4.4	101	Shang, Weijian	ThFPoT17.6	70
Seno, Yumeka	FrBPoT8.4	91		FrFPoT5.41	116
Senok, Solomon	ThBPoT12.1	47	Shao, Qing	WeCT19.3	26
Sensi, Francesco	ThFPoT5.3	62	Shariat, Mohammad Hassan	ThFPoT10.3	65
Sensinger, Jonathon W.	WeCT11.6	24	Sharma, Karun	ThBPoT20.3	51
Seo, Dongjin	ThAT20.1	38	Sharma, Puneet	WeBPoT12.3	14
Seo, Hyein	SaBPoT8.12	144	Sharp, Paul	ThFPoT7.4	63
Seo, Jong Mo	ThBPoT16.5	49	Shastri, V. Prasad	ThDT9.3	53
Seo, Joohyun	FrAT9.1	81	Shaw, Geoffrey M	WeAT21.3	7
	FrET1.4	100		WeBPoT13.5	15
Seo, Kyungwon	FrFPoT5.4	114		WeBPoT13.6	15
Seo, Min-Woong	FrAT19.4	84		ThET16.6	58
	FrFPoT9.11	119		ThFPoT9.6	64
Seoane, Fernando	ThBPoT6.4	44		ThGT10.1	76
	ThBPoT24.3	52		FrBPoT7.2	91
Seppänen, Tapio	WeBPoT5.2	10	Shawky, Doaa	SaBPoT1.24	134
	ThBPoT11.3	47	She, Qi	ThAT11.1	36
	SaAT4.1	C	Sheet, Debdoot	ThBPoT5.21	42
	SaAT4.5	128		FrBPoT4.2	89
Seppänen, Tiina Maarit	ThBPoT11.3	47	Shehata, Bahig	WeBPoT6.5	11
	SaAT4.5	128	Shen, Chia-Ping	ThFPoT9.13	65
Serbes, Gorkem	FrBPoT2.4	86	Shen, Edward	FrBPoT15.6	94
Sergi, Ilaria	ThFPoT18.4	71	Shen, Xiangrong	ThFPoT21.6	72
Sergi, Pier Nicola	FrET10.6	103	Shen, Yong	FrET16.4	104
Sergiu, Groppa	ThFPoT5.10	62	Sheng, Xinjun	WeBPoT16.7	16
	ThFPoT5.13	63		FrET18.1	105
Seri, Istvan	WeET2.3	27		FrET18.3	105
Serman, Maja	ThFPoT12.25	67	Shenoy, Krishna V.	WeAT3.6	1
Sero, Julia	SaBPoT8.18	144		WeBPoT15.4	15
Seromenho e Santos, Alexandra	FrBPoT3.8	87		FrGT10.1	123
Serracino-Ingloft, Ferdinand	WeBPoT13.3	14	Shepard, Kenneth	FrGT8.2	122
Serranho, Pedro	SaAT19.6	132	Sheriff, Jaffer	FrET1.1	100
Servello, Domenico	SaBPoT1.4	133	Sheriff, Jawaad	WeAT12.1	4
Sessa, Salvatore	ThBPoT6.3	44	Sherwin, Spencer	WeET6.4	28
	FrET2.6	100	Sherwood, Victoria	FrBPoT11.1	92
Sethi, Sean	SaAT2.4	127	Sheshadri, Swathi	ThBPoT6.13	44
Sethuraman, Shriram	WeET2.6	27	Shi, Bertram E	WeBPoT1.2	7
Setola, Roberto	ThBPoT25.4	52		WeCT3.3	21
Seunghan, Lee	ThGT5.1	74	Shi, Jun	WeBPoT3.10	9
Sever, Refik	FrFPoT4.31	113		ThFPoT1.9	60
Severeyn Varela, Erika	ThFPoT9.3	64	Shi, Lin	SaAT7.6	129
Severi, Stefano	ThBPoT5.34	43	Shi, Yonggang	FrGT6.6	122
	FrET6.2	102	Shiba, Kenji	ThAT20.1	CC
	SaBPoT3.7	137		ThAT20.3	38
Severini, Giacomo	ThBPoT14.12	49	Shibanoki, Taro	WeBPoT17.4	17
Sevrin, Loïc	ThFPoT20.4	71		FrAT5.6	80
Sezen, A. Serdar	FrGT12.3	124	Shibata, Masahiro	SaBPoT4.1	138
Sfakianakis, Stelios	WeBPoT25.7	20	Shibata, Tomohiro	WeET11.1	30
	FrBPoT10.2	92		SaBPoT5.26	140
Sforza, Chiarella	SaBPoT2.12	135	Shie, ChuenKai	WeBPoT6.1	11
	SaBPoT5.3	139			

Shiga, Toshikazu	ThDT2.3	52	Siddiqi, Ariba	FrBPoT2.20	86
	ThDT2.4	52	Siddiqi, Muhammad Hameed	ThFPoT22.6	72
Shih, Ludy	SaAT17.3	131	Siddique, Nazmul	SaAT18.1	131
Shikh-Bahaei, Mohammad	WeBPoT25.2	20		SaAT18.1	C
Shim, Hwan	FrBPoT3.5	87	Sideris, Apostolos	FrBPoT5.6	90
Shim, Hyeon-min	FrFPoT9.23	119	Sideris, Costas	ThAT12.2	36
Shim, Miseon	FrFPoT1.9	107	Siebes, Maria	SaBPoT2.39	136
	FrFPoT4.15	112	Sieger, Tomas	WeCT5.3	22
Shim, Youngbo	ThET8.6	57	Sieling, Jared	FrFPoT6.26	117
Shima, Keisuke	WeBPoT17.4	17	Sienko, Kathleen H.	ThFPoT12.26	67
	FrFPoT8.16	118		SaBPoT6.1	141
Shimada, Shigenobu	ThFPoT15.4	69	Sievenpiper, Dan	SaBPoT2.3	135
	SaBPoT5.9	139	Sievert, Karl-Dietrich	ThBPoT2.15	39
Shimada, Tetsuya	FrBPoT3.22	88	Siggers, Jennifer	WeET6.4	28
Shiman, Farid	WeET3.6	27		FrET19.3	105
Shimatani, Koji	FrAT5.6	80	Siggiridou, Elsa	ThET18.4	59
	FrFPoT8.16	118	Signorini, Maria G.	WeAT13.1	C
Shimayoshi, Takao	SaBPoT4.22	139		WeAT13.5	5
Shimazaki, Natsumi	WeBPoT22.5	19		ThGT1.1	73
Shimazaki, Takunori	WeET8.1	29		FrAT18.1	C
Shimba, Kenta	FrET10.1	103		SaAT16.1	CC
	FrFPoT3.17	111	Signoroni, Alberto	WeBPoT6.13	11
Shimizu, Kensuke	WeET3.3	27		WeBPoT6.14	11
Shimizu, Koichi	SaBPoT1.21	134		FrGT6.1	121
Shimizu, Oki	SaBPoT7.11	144	Sigward, Susan	FrBPoT18.2	95
Shimizu, Tatsuya	ThBPoT5.13	42	Sikdar, Arindam	WeBPoT5.1	10
	ThBPoT16.4	49	Šilar, Jan	ThBPoT23.1	51
Shimizu, Yuto	ThGT20.5	78		ThBPoT23.2	51
Shimojo, Makoto	SaBPoT5.9	139	Silluta, Sandra	FrBPoT8.1	91
Shimoyama, Natsuki	FrBPoT19.4	96	Silva Girão, Pedro	WeAT20.4	7
Shin, Chae Won	ThET2.5	55	Silva, Carlos Alberto Batista	ThBPoT5.2	41
Shin, Chan Soo	FrFPoT5.23	115		ThBPoT5.23	43
Shin, Chang Yeol	FrFPoT5.16	114	Silva, Gabriel	ThET11.1	57
Shin, Duk	SaBPoT5.12	140	Silva, Ivo	FrBPoT4.7	89
Shin, Hangsik	SaBPoT3.25	137	Silva, Samuel	SaAT15.1	130
Shin, Sangkyun	ThGT8.3	75	Silva, Simone Massaneiro	FrBPoT20.7	96
Shin, Younghak	SaBPoT1.11	133	Silva-Filho, Abel	WeBPoT6.23	12
Shin, Young-Seok	SaBPoT6.15	141	Silvestri, Erica	FrFPoT9.12	119
Shine, James M.	FrBPoT13.11	94	Silvestri, Sergio	WeBPoT22.1	18
Shingaki, Ryusei	FrBPoT20.6	96		WeBPoT22.2	18
Shinozuka, Machiko	WeBPoT22.5	19		WeBPoT22.3	18
Shintemirov, Almas	ThAT9.6	35		WeCT13.2	24
Shiobara, Masahito	FrAT17.1	83		SaAT6.2	128
Shiotani, Maho	FrBPoT15.7	94	Sima, Diana	FrET4.6	101
Shioya, Shunsuke	WeET20.2	32	Similä, Heidi	FrDT2.2	98
Shiozawa, Naruhiro	SaBPoT3.23	137		FrET2.2	100
Shirai, Mikiyasu	WeBPoT12.1	14		FrFPoT8.18	118
Shiraishi, Sho	SaBPoT5.19	140		FrGT15.1	124
Shiraishi, Yasuyuki	WeAT12.5	4		FrGT15.1	CC
	WeBPoT23.1	19	Simmons, Anne	ThAT8.2	35
	SaBPoT4.3	138	Simões, Marco	ThET19.4	59
Shiraki, Masashi	WeBPoT1.6	8	Simon, Ann	WeCT11.4	24
Shirin Shandiz, Mahdi	ThFPoT5.12	63	Simon, Antoine	WeET19.1	32
Shirouzu, Shigenori	FrBPoT8.4	91		ThAT6.3	34
Shiv, Ganesh	FrET1.1	100		ThAT6.5	34
Shivashankar, G.V.	WeAT16.3	5		ThGT6.1	74
Shivdasani, Mohit N.	FrFPoT4.14	112		ThGT6.5	75
Shkolyar, Anat	WeBPoT6.9	11	Simon, Habran	SaBPoT4.15	138
Shoghi, Fathemeh	ThDT16.2	54	Simons, Samantha	FrGT4.2	121
Shojaei, Ahmad	ThFPoT5.12	63	Simos, Panagiotis	ThBPoT24.4	52
	FrFPoT2.9	108	Simpson, David Martin	WeCT18.2	25
Shokrollahi, Elnaz	ThFPoT17.9	70	Simpson, Jeremy C.	FrFPoT2.15	108
Shooshtary, Samaneh	WeCT7.3	22	Simsek, Fatma	SaBPoT3.35	137
Short, Jakob	FrFPoT2.18	109	Sinceri, Sara	ThFPoT24.1	73
	FrFPoT2.19	109		ThFPoT24.2	73
	FrFPoT2.20	109	Singaram, Kanageswari	FrFPoT5.14	114
Shosted, Ryan	WeCT7.2	22	Singh Bachhal, Jannat	FrFPoT3.28	111
Shoucri, Rachad M.	SaBPoT4.18	138	Singh, Karan	WeBPoT2.3	8
Shrestha, Shikhar	FrGT10.1	123	Singh, Shiv Govind	WeBPoT8.1	12
Shu, Huazhong	FrAT6.2	80		WeBPoT24.5	20
Shull, Peter B.	ThFPoT12.26	67	Singhvilai, Thamvarit	ThBPoT10.3	46
	SaBPoT6.1	141		ThBPoT10.4	46
Shultz, Amanda	ThGT9.3	76	Singhvi, Akshit	WeBPoT2.3	8
	ThGT9.5	76	Sinha, Pawan	WeCT3.4	21
Shung, K. Kirk	FrFPoT2.21	109	Siniatchkin, Michael	WeET4.1	27
	FrFPoT2.22	109		WeET17.6	31
Shute, Jonathan	FrFPoT4.32	113		ThBPoT2.6	39
	FrFPoT4.33	113		ThBPoT2.7	39
Si, Phong	FrFPoT5.33	115		ThGT17.2	77
Siahpoush, Shadi	ThGT3.2	74		FrAT5.3	80
Siciliano, Piero	FrFPoT8.6	118	Siogkas, Panagiotis	WeBPoT12.5	14
	FrFPoT8.12	118		FrAT6.6	81

Sipilä, Kirsi	FrFPoT5.24	115	Sodini, Charles G.	WeBPoT21.10	18
Sirikantharajah, Shahini	ThBPoT14.15	49		FrAT9.1	81
Sirilli, Matteo	ThFPoT8.1	64		FrET1.4	100
Sirry, Mazin S	SaDT11.1	146	Soedirdjo, Subaryani Dambawati Harjaya	ThET5.6	56
Sisini, Francesco	ThDT6.3	53	Soehle, Martin	FrGT18.2	125
	SaAT2.4	127	Soeiro, José	ThFPoT23.3	72
Sisman, Alper	FrFPoT9.3	118	Soenksen, Luis Ruben	FrGT6.4	122
Siti Anom, Ahmad	FrBPoT3.27	88	Soffientini, Chiara Dolores	SaBPoT2.36	136
Sivaprakasam, Mohanasankar	WeBPoT20.8	17	Sofia, Andrea	FrFPoT5.25	115
	ThET2.6	55	Soh, Zu	FrAT2.1	79
	ThFPoT6.4	63		FrAT5.6	80
	FrAT7.1	81	Sohal, Vikaas	WeBPoT7.5	12
	FrAT9.6	82	Sohrabbpour, Abbas	WeBPoT4.7	9
	FrET1.3	100	Sokolic, Jure	WeCT5.1	22
Sivarasu, Sudesh	WeBPoT14.3	15	Sokolov, Danil	SaAT12.1	130
	SaDT11.7	146	Sola, Josep	SaAT17.4	131
Skalski, Andrzej	WeBPoT6.7	11	Solari, Silvano	FrAT10.4	82
Skandari, Roghieh	FrBPoT9.9	92	Solaro, Claudio	SaBPoT6.20	142
	SaBPoT6.29	142	Solà-Soler, Jordi	FrGT18.4	125
Skobel, Erik	FrGT12.4	124	Solbach, Klaus	WeCT7.3	22
Skoric, Tamara	FrGT18.1	125	Solbiati, Luigi	SaBPoT2.36	136
Skorinko, Jeanine	ThFPoT21.4	72	Solbiati, Marco	SaBPoT2.36	136
	FrBPoT21.6	97	Soleymani, Sadaf	WeET2.3	27
Skorodumovs, Aleksejs	ThFPoT19.4	71	Soltanzadeh, Ramin	WeET18.5	32
Skorucak, Jelena	ThDT1.3	52		FrBPoT1.11	85
Skouroliakou, Katerina	SaBPoT2.1	135	Someya, Takao	ThBPoT7.4	44
Skowron, Olivier	SaBPoT5.24	140		ThFPoT5.9	62
Skubic, Marjorie	WeAT8.5	3		ThFPoT12.8	66
	FrET7.2	102		SaBPoT4.24	139
	FrET12.4	104	Sona, Diego	WeBPoT3.12	9
Slagmolen, Pieter	WeAT6.2	2	Soncini, Monica	WeAT16.1	5
Slayton, Michael	FrFPoT5.10	114		WeAT16.1	C
	FrFPoT5.40	116		ThAT16.3	37
Slepian, Marvin J.	WeAT12.1	4	Song, Biao	FrAT8.6	81
	WeAT12.2	4	Song, Cheol	WeAT1.2	1
	WeAT12.6	4		FrBPoT4.14	89
	WeBPoT21.5	18	Song, Dong	ThAT11.6	36
	SaDT7.1	C		ThBPoT9.16	46
	SaDT7.2	146		ThET11.1	C
	SaDT7.4	146		ThET11.4	58
Sloane, Elliot B.	SaDT1.3	145		ThET11.5	58
Slodkowska, Janina	FrBPoT4.4	89		ThFPoT13.9	68
Sluis, Van der, Corry	FrET11.1	103		FrET10.4	103
Slutzky, Marc	ThDT8.1	53	Song, Eunwoo	FrBPoT3.5	87
	ThDT8.1	C	Song, Huijin	SaAT3.2	127
	ThGT11.1	76	Song, Jiyoung	SaBPoT3.11	137
	ThGT11.1	CC	Song, Kang-Il	WeBPoT14.6	15
Smeets, Christophe	WeAT20.3	7		ThAT11.2	36
Smielewski, Peter	FrGT18.2	125		ThBPoT13.9	48
Smith, Alex K.	ThGT19.1	77		SaBPoT6.3	141
Smith, Ann DeBord	FrFPoT5.18	115	Song, Rong	WeAT11.1	CC
Smith, Erin	ThBPoT25.2	52		WeAT11.4	4
Smith, Graham	SaBPoT6.38	143		FrBPoT15.5	94
Smith, Johan	WeBPoT21.9	18	Song, Seong-Mi	SaBPoT5.20	140
	FrAT2.4	79	Song, Tao	ThFPoT12.28	67
Smith, Keith	WeET17.5	31	Song, Won-Kyung	SaBPoT5.20	140
	ThBPoT2.30	40	Song, Yalong	ThFPoT11.7	66
	FrGT4.4	121	Song, Yang	WeBPoT2.7	8
Smith, Lauren	WeBPoT16.1	16	Song, Ying	FrAT6.5	81
	WeCT11.4	24		FrET6.6	102
Smith, Max	ThAT7.4	34	Song, Yong-Won	FrFPoT3.22	111
Smith, Mitchell Robert	FrGT11.5	123	Song, Yoonseon	ThBPoT2.35	40
Smith, Paul	ThAT20.2	38	Soniwal, Yogesh	ThBPoT5.37	43
Smith, Seth A.	ThGT19.1	77	Sonkusale, Sameer	ThDT16.4	54
Smith, Stewart	FrAT20.5	84		FrGT9.1	123
	FrFPoT9.19	119	Sonoyama, Shoji	WeBPoT6.19	12
Smits, Anne	SaBPoT11.20	134	Sood, Mehak	WeBPoT21.1	18
So, Ka Yan	ThAT11.1	36		ThBPoT13.5	47
So, Rosa	WeBPoT15.11	16	Soraghan, John J	WeBPoT1.4	7
	ThGT3.1	73		ThAT7.5	34
Soares, Fabiano Araujo	ThBPoT1.3	38	Sorbi, Sandro	ThET10.1	57
Soares, Sandra	ThAT4.5	33	Sorby, Hugh	SaBPoT8.21	145
	ThET2.2	54	Sorelli, Michele	FrGT2.5	120
Sobhani Tehrani, Ehsan	FrBPoT17.6	95	Sorensen, Helge B D	WeAT15.5	5
Sobolewski, Aleksander	ThAT3.3	33		WeBPoT3.13	9
Sobot, Robert	ThDT16.3	54		WeBPoT3.14	9
Sobrevilla, Pilar	WeAT1.1	1		FrBPoT1.23	85
	WeBPoT5.7	10	Soroshmehr, S.M.Reza	ThBPoT5.7	42
Sobue, Keita	FrFPoT9.11	119		ThBPoT5.29	43
Soda, Paolo	WeBPoT6.10	11		ThFPoT3.3	61
	FrGT19.3	125		SaAT6.4	128

Sorzano Sanchez, Carlos Oscar	WeET19.6	32	Stephani, Ulrich	ThBPoT2.6	39
Sosnik, Ronen	SaAT18.1	131		ThBPoT2.7	39
Sota, Takayuki	SaBPoT2.16	135		FrAT5.3	80
Soto Hermoso, Victor M.	WeBPoT20.11	18	Stephanie, Fook-Chong	FrFPoT5.14	114
Souedet, Nicolas	ThET7.1	56	Stephens, Gaye	FrBPoT21.1	96
Sousa, Monica	FrBPoT4.7	89	Stepniak, Simon	ThFPoT7.7	64
Soussen, Charles	FrBPoT9.4	92	Stepp, Cara	ThDT8.5	53
Sozanski, Jean Pierre	ThFPoT15.5	69	Stergiopoulos, Stergios	WeET7.1	28
	FrFPoT5.8	114	Stern, Linda	ThFPoT24.5	73
Spaan, Jos	SaBPoT2.39	136	Sterzi, Silvia	WeBPoT22.3	18
Spadola, Giuseppe	WeBPoT10.4	13	Stevenson, Cory	WeBPoT8.3	12
	FrBPoT4.17	89	Stevenson, Nathan	FrAT18.6	84
Spagnoli, Heloisa Ferreira	WeBPoT6.4	11	Stewart, Fraser	FrFPoT5.30	115
Spalazzi, Luca	FrGT15.6	124	Stewart, Kent	ThET16.6	58
Spanakis, Manolis	WeBPoT25.7	20		ThFPoT9.6	64
Spanias, Andreas	WeAT8.1	3	Stewart, Walter	ThAT12.1	36
Spanu, Andrea	FrDT10.3	99	Steyrl, David	WeBPoT15.1	15
Sparacino, Giovanni	WeCT5.1	CC		ThAT3.4	33
	WeCT5.2	22		ThET5.1	55
	ThAT5.1	33	Stieglitz, Thomas	WeBPoT7.1	12
	ThAT5.2	34		WeBPoT7.2	12
	ThAT5.5	34		WeBPoT14.9	15
	FrFPoT9.34	120		FrET10.5	103
Sparks, Ross	WeCT8.1	23	Stoecklin, Sebastian	ThBPoT7.9	45
	SaDT5.1	145	Støen, Ragnhild	ThGT4.6	74
Spasov, Simeon	FrFPoT9.16	119	Stoitsis, John	WeBPoT25.1	20
	FrFPoT9.18	119	Stokes, Adam A.	FrAT20.5	84
Spatafora, Grazia	WeBPoT10.4	13	Stokes, Patrick	SaAT3.2	127
Spezialetti, Matteo	FrET5.4	101	Stokroos, Robert	FrET15.2	104
Spilka, Jiri	WeET5.6	28	Stoll, Frederic	FrAT3.5	79
	ThAT4.1	33	Storelli, Loredana	SaBPoT2.8	135
Spinsante, Susanna	ThFPoT22.10	72	Storey, Christopher M.	FrBPoT17.7	95
Spiridon, Ioannis	WeBPoT10.7	13	Stoyanov, Danail	FrAT19.2	84
Spoldi, Valentina	WeCT16.6	25	Strachan, David P	ThGT7.1	75
Springthorpe, Dwight	SaBPoT3.6	137	Straface, Giada	FrGT2.1	120
Spüler, Martin	WeBPoT15.9	16	Strähle, Uwe	FrGT19.4	125
	WeBPoT15.10	16	Stramaglia, Sebastiano	ThET18.3	59
	WeET3.6	27	Strand-Amundsen, Runar	FrFPoT3.6	110
Squeri, Valentina	WeAT11.6	4	Stranieri, Giorgia	FrET3.3	101
	WeCT1.1	20	Strauss, Daniel J.	WeCT10.3	23
	ThBPoT14.6	48		WeET5.5	28
	SaBPoT6.41	143		ThFPoT12.25	67
Squillace, Gabriel	WeAT20.3	7		FrBPoT4.9	89
Sriarwut, Thanyalak	ThBPoT9.3	45		FrFPoT4.37	113
Srinivasan, Aravind	WeAT18.4	6		SaAT18.4	132
Sriperumbudur, Kiran K	ThFPoT13.6	68		SaAT18.6	132
	SaBPoT8.14	144	Strazzer, Sandra	ThFPoT12.5	66
Sriram, Tirunelveli	SaAT3.4	127		FrBPoT13.10	94
Srivastava, Ruchir	FrAT7.6	81		FrGT3.6	121
Staal, Odd Martin	ThBPoT2.8	39	Strickland, David	FrET3.2	101
Stafanini, Igor	FrFPoT5.25	115	Strocka, Steffen	ThAT7.6	34
	SaBPoT4.25	139	Stroili, Manuela	WeBPoT20.5	17
	SaBPoT7.10	144	Strongwater, Allan	ThFPoT12.4	66
Stahl, James	FrDT5.3	98		SaBPoT6.40	143
Stamou, Giorgos	WeBPoT25.1	20	Strungaru, Rodica	ThFPoT11.0	60
Stampanoni, Marco	WeET13.3	30		FrBPoT1.16	85
Stango, Antonietta	ThET20.3	60		SaBPoT1.31	134
Stankovski, Tomislav	FrGT2.2	120	Stucki, Reto	SaAT15.4	131
Stanley, Jeffrey A.	ThDT5.1	53	Studer, Michèle	FrGT6.3	122
Staranowicz, Aaron	ThFPoT20.2	71	Stueber, Patrick	FrET5.3	101
Starr, John	WeET17.5	31	Stut, Wim	FrGT15.5	124
	ThBPoT2.30	40	Su, Bo-Yu	FrET12.4	104
	FrBPoT16.3	95	Su, Che-Wei	FrFPoT6.13	117
Staude, Gerhard	ThGT4.6	74	Su, Chun Jen	SaBPoT4.9	138
Stavdahl, Øyvind	WeAT3.6	1	Su, Guangda	FrET17.3	105
Stavisky, Sergey	FrAT20.4	84	Su, Hai	FrET16.4	104
Stavrou, Evi	WeAT8.1	3	Su, Jui-Yiao	ThBPoT18.3	50
Stavrou, Stavros	WeBPoT6.17	11	Su, Kaiqi	FrGT19.2	125
Stecco, Antonio	SaDT6.3	145	Su, Lydia	SaBPoT6.1	141
Steenbergen, Wiendelt	FrFPoT9.21	119	Su, Shaojie	ThBPoT2.5	39
Stefanini, Cesare	WeBPoT12.5	14	Su, Steven Weidong	ThBPoT6.10	44
Stefanou, Kostas	WeET2.1	27		ThFPoT12.23	67
	FrBPoT12.1	93		FrBPoT2.5	86
Stefanov, Dimitar	FrAT10.5	82		FrBPoT15.8	94
Stefanovska, Aneta	FrGT2.2	120		FrET17.4	105
Stein, John F	ThET3.6	55	Su, Yi	ThBPoT23.5	51
Steinhubl, Steven	ThAT12.1	36	Suanning, Gregg	WeBPoT7.3	12
Stella, Alessandro	ThFPoT9.7	64		WeBPoT24.3	19
Steltenkamp, Siegfried	ThFPoT7.7	64		WeCT10.1	23
Stenroos, Matti	WeAT10.4	4		WeCT10.1	C
Stenzl, Arnulf	ThBPoT2.15	39		ThAT2.1	33
	FrAT16.1	83		ThBPoT12.3	47

Takahashi, Kazutaka	WeAT3.1	C	Tan, Andrew	ThAT10.6	35
	WeAT3.2	1	Tan, Ao	WeCT4.2	21
	WeAT3.3	1		ThAT18.3	37
	ThGT11.1	C		ThAT18.5	37
	ThGT11.2	76	Tan, Dakun	ThBPoT2.27	40
	ThGT11.3	76	Tan, Jia Xuan	ThET10.3	57
	SaBPoT6.35	143	Tan, Ke	ThAT4.4	33
	SaBPoT6.38	143	Tan, Ngan Meng	WeCT8.3	23
Takahashi, Kazuya	SaBPoT7.11	144	Tan, Ru San	WeAT15.3	5
Takahashi, Ken	SaBPoT7.14	144		WeBPoT5.12	10
Takahashi, Noriyo	WeBPoT21.6	18		FrBPoT11.4	92
Takahashi, Shinya	FrAT2.1	79		FrBPoT11.5	92
Takahashi, Taiki	FrBPoT14.7	94	Tan, Stacey, Sze Hui	FrFPoT5.3	114
Takakusaki, Kaoru	SaBPoT5.19	140	Tan, Steven	ThET7.3	56
	SaBPoT6.21	142	Tan, Tele	ThBPoT3.6	41
Takanishi, Atsuo	ThBPoT6.3	44	Tanabe, Minoru	FrBPoT22.3	97
	FrET2.6	100	Tanabe, Tomoka	SaBPoT6.12	141
	SaAT1.2	127	Tanaka, Akira	ThFPoT3.4	61
Takashima, Kenta	ThFPoT12.8	66		FrET1.2	100
Takata, Kazutoyo	FrFPoT4.12	112	Tanaka, Nachi	WeET7.3	28
Takatani, Kouki	WeCT10.2	23	Tanaka, Naoto	FrFPoT6.2	116
Takayama, Taiki	FrGT11.3	123	Tanaka, Nobuyuki	ThBPoT16.4	49
Takayanagi, Shinji	FrFPoT5.13	114	Tanaka, Noriko	FrFPoT4.25	113
Takeda, Toki	ThAT4.3	33	Tanaka, Shigeho	WeBPoT11.11	8
Takehara, Hiroaki	ThBPoT12.2	47	Tanaka, Shinji	WeBPoT6.19	12
	FrFPoT2.36	109		ThBPoT5.13	42
Takehara, Hironari	FrFPoT2.36	109		FrAT19.4	84
Takehara, Shoichiro	SaBPoT5.40	141	Tanaka, Shinobu	FrFPoT3.33	111
Takehara, Takako	SaBPoT4.13	138	Tanaka, Takayuki	ThET9.2	57
Takei, Masahiro	FrFPoT5.28	115		ThET9.3	57
Takei, Masumi	SaBPoT5.5	139		FrBPoT16.4	95
Takei, Yusuke	FrFPoT5.9	114	Tanaka, Tomohiro	ThAT4.3	33
Takemura, Haruo	WeBPoT10.2	13		FrFPoT1.25	107
Takemura, Hiroshi	ThBPoT18.5	50		FrFPoT1.30	108
	ThFPoT15.8	69		FrFPoT4.29	113
	SaBPoT5.21	140		SaBPoT3.26	137
Takeno, Shunuke	FrBPoT15.10	95	Tanaka, Toshihisa	FrBPoT14.9	94
Takenoya, Hiromi	WeBPoT22.4	18	Tanaka, Yoshihiro	SaBPoT5.5	139
Takeshita, Yuya	FrBPoT14.8	94	Tanaka, Yoshiyuki	FrET3.5	101
Takeuchi, Akihito	FrAT5.6	80	Tanaka, Yukimi	FrFPoT3.17	111
Takeuchi, Fumiya	WeCT17.3	25	Tang, Chengchun	ThFPoT10.4	65
	FrAT11.6	82	Tang, Dan	FrFPoT4.20	112
Takeuchi, Hikaru	FrET2.6	100	Tang, Hao-Yen	ThAT20.1	38
Takeuchi, Yoshinori	WeCT10.2	23	Tang, Kea Tiong	WeBPoT8.2	12
	ThGT21.4	78	Tang, Tong Boon	WeBPoT4.4	9
Takewa, Yoshiaki	WeBPoT12.1	14	Tang, Wei	WeET15.2	31
	SaBPoT4.8	138	Tang, Xiaoying	ThBPoT5.27	43
Taki, Hirofumi	FrBPoT5.7	90	Tang, Ying	FrFPoT3.3	110
Taki, Yasuyuki	WeBPoT5.5	10	Tang, Zunyi	ThGT2.1	73
Takiguchi, Tetsuya	FrFPoT4.27	113		ThGT21.4	78
Takizawa, Kenichi	ThET20.6	60	Tange, Yutaka	FrBPoT15.10	95
Takka, Semih	SaBPoT5.6	139	Tangermann, Michael	ThFPoT1.1	60
Takoh Kimiyasu, Kimiyasu	ThFPoT19.1	71		ThGT3.5	74
Talamonti, Cinzia	FrFPoT5.20	115	Tanglitanont, Tatsanee	ThBPoT15.1	49
Tam, Gary	ThBPoT4.2	41	Tânia, Pereira	SaBPoT4.19	138
Tam, Wing Kin	ThBPoT25.3	52	Tank, Jens	WeET9.5	29
	ThGT3.1	73		ThDT7.1	53
Tamada, Yasushi	SaBPoT7.11	144		ThDT7.1	C
Tamagnone, Irene	WeAT11.1	4	Tankyevych, Olena	WeBPoT5.4	10
Tamai, Akira	FrFPoT8.17	118		FrFPoT2.24	109
Tamaki, Toru	WeBPoT6.19	12	Tanoto, Tan Anthony	WeET1.1	26
	ThBPoT5.13	42	Tanskanen, Jarno M. A.	ThBPoT13.15	48
Tamano, Yuki	SaBPoT3.8	137		ThFPoT14.1	68
Tamayo, Mikhail	FrBPoT13.3	93	Tanzi, Maria Cristina	WeCT16.1	C
Tamburro, Gabriella	ThET10.1	57		WeCT16.6	25
Tamei, Tomoya	WeET11.1	30	Taralunga, Dragos-Daniel	ThFPoT1.10	60
	WeET11.1	CC		SaBPoT1.31	134
	SaBPoT5.26	140	Tarasiuk, Ariel	FrBPoT1.17	85
Tamil, Lakshman	WeBPoT7.7	12		FrGT17.5	125
Tamilia, Eleonora	FrGT3.1	120	Tarassoli, Payam	WeAT1.3	1
Tamminen, Ilmari	FrAT6.3	80		ThFPoT17.5	70
Tams, Carl	ThGT10.6	76		ThFPoT17.13	70
Tamura, Toshiyo	ThDT2.1	52	Tarín, Cristina	FrBPoT7.6	91
	ThDT2.1	CC	Tarnanas, Ioannis	WeBPoT23.3	19
	ThFPoT8.2	64	Tarniceriu, Adrian	WeAT20.1	7
	ThGT2.1	73		SaAT17.6	131
	ThGT21.4	78	Tarokh, Leila	ThDT1.3	52
	FrFPoT4.25	113	Tarroni, Giacomo	WeAT7.2	2
	SaAT15.1	C		FrAT17.3	83
	SaBPoT4.11	138		SaAT19.5	132
	SaBPoT6.33	142	Tartaglia, Gianluca Martino	SaBPoT2.12	135

Tartagni, Marco	SaBPoT3.7	137	Thakor, Nitish	WeET15.6	31	
Tarvainen, Mika	FrBPoT3.13	87		ThBPoT3.11	41	
	SaAT18.1	CC		ThBPoT6.13	44	
	SaBPoT4.23	139		ThDT16.1	CC	
Tashiro, Hiroyuki	ThBPoT12.2	47		ThFPoT13.5	68	
Tasso, Elisa	FrFPoT4.21	112		ThFPoT13.12	68	
Tataraidze, Alexander	WeAT17.1	6		ThFPoT15.13	69	
	WeAT17.2	6		FrFPoT4.7	112	
Tatarinoff, Veronica	ThBPoT12.3	47		FrFPoT5.3	114	
Tate, Matthew	ThGT11.1	76		SaAT10.4	130	
Tatsumi, Eisuke	WeBPoT12.1	14	Thakuri, Pradip	WeET16.5	31	
	SaBPoT4.8	138	Thanawattano, Chusak	FrBPoT2.11	86	
Tätzner, Simon	ThFPoT7.7	64	Thang, Niang Suan	FrFPoT9.36	120	
Tautan, Alexandra-Maria	FrBPoT3.9	87	Thap, Tharoeun	SaBPoT3.21	137	
Tavakolian, Kouhyar	WeBPoT21.3	18		SaBPoT3.22	137	
	FrBPoT1.7	85	Theocharides, Theocharis	ThBPoT9.13	46	
	FrET7.6	102	Thermolia, Chryssa	FrBPoT19.7	96	
	FrET12.1	104	Thewes, Roland	FrDT10.6	99	
Tavana, Hossein	WeET16.5	31	Thewissen, Liesbeth	SaBPoT1.20	134	
	ThBPoT17.3	49	Thielscher, Axel	WeAT10.1	3	
Tavares, Miguel	ThAT12.3	36	Thien, Huynh-The	ThFPoT22.6	72	
Tavilla, Agatino Christian	SaBPoT4.25	139	Thio, Tzer Hwai Gilbert	ThBPoT8.5	45	
	SaBPoT7.10	144	Thomas, David	WeAT6.3	2	
Taya, Fumihiko	ThBPoT3.11	41	Thomas, Felicity	ThET16.6	58	
	ThFPoT13.5	68		ThFPoT9.6	64	
Taylor, Kenneth	ThGT21.1	78	Thomas, George	ThBPoT6.3	44	
	FrET2.3	100	Thomas, Maria	ThET16.1	58	
Taylor, Russell H.	WeAT1.4	1	Thomsen, Carsten Eckhart	WeBPoT3.13	9	
Taylor, Sara	WeET4.3	27	Thomsen, Erik V	FrBPoT12.5	93	
	FrBPoT3.28	88	Thornton, Matt	FrBPoT17.2	95	
	FrBPoT20.1	96	Thorsten, Bartsch	WeBPoT4.8	10	
Taylor, Steve	ThAT10.1	35	Thyagarajan, Dominic	WeBPoT6.8	11	
Taylor, Terence E.	WeET18.4	32		ThBPoT5.40	44	
Tecchio, Franca	WeAT10.5	4	Tian, Jie	ThBPoT4.4	41	
Tedeschi, Enrico	ThBPoT5.24	43		ThFPoT3.8	61	
Tedesco, Mariateresa	FrDT10.3	99	Tian, Lan	ThBPoT12.5	47	
Teichmann, Daniel	FrGT12.4	124	Tibollo, Valentina	WeET12.2	30	
	SaBPoT3.3	137	Ticcinelli, Valentina	FrGT2.2	120	
Teixeira Lacerda, João Marcos	FrFPoT6.11	116	Tighe, Joe	FrET20.2	106	
Teixeira, César	ThFPoT9.14	65	Tileyioglu, Emre	ThFPoT15.11	69	
	ThGT18.5	77	Till, John	ThGT8.1	75	
	FrAT4.4	80	Tilmant, Christophe	WeAT6.1	2	
	FrBPoT1.6	85	Timm, Gerald W.	FrGT12.3	124	
Telegenov, Kuat	ThAT9.6	35	Timmermann, Dirk	WeCT15.3	24	
Telkes, Ilknur	FrAT3.4	79	Timmermans, Annick A.A.	ThFPoT12.6	66	
Tello, Andrés	ThAT12.6	36		FrAT10.6	82	
Telyshev, Dmitry	FrFPoT5.31	115	Timms, Daniel Lee	WeAT12.4	4	
	FrFPoT5.39	116	Tin, Chung	WeAT11.2	4	
Temitski, Kristina	FrBPoT8.1	91	Tiragallo, Elena	FrET3.3	101	
Temko, Andriy	WeCT4.3	21	Tissier, Renaud	WeCT13.3	24	
	ThAT4.6	33	Tivatansakul, Somchanok	FrBPoT19.8	96	
	FrAT18.6	84		FrFPoT6.12	116	
	FrBPoT13.2	93	Tiwari, Vijay Narayan	WeCT9.6	23	
Tempany, Clare Mary	FrFPoT5.41	116	Tkacz, Ewaryst	ThFPoT1.11	60	
Tenaglia, Enrico	FrFPoT3.36	111		FrBPoT1.24	85	
Tenhunen, Hannu	WeET8.4	29		FrBPoT1.25	85	
Tennstaedt, Annette	FrBPoT4.8	89		SaBPoT5.33	140	
Teo, Chee Leong	ThET10.3	57	Tmar-Ben Hamida, Sana	FrBPoT3.24	88	
Teo, Soo Kng	ThBPoT23.5	51	To, Naoya	WeBPoT20.1	17	
Teoh, Stephen	ThFPoT6.3	63	Tobioka, Ken	FrBPoT8.4	91	
TerAvest, Michaela	FrGT8.4	122	Tobon, Carlos Andrés	FrGT5.3	121	
Terebus, Anna	SaDT9.4	146	Tochikubo Osamu, Osamu	ThFPoT19.1	71	
Terenzi, Michela	FrET17.2	105	Toda, Tomoki	ThBPoT2.14	39	
Terosiet, Mehdi	ThFPoT4.6	62	Toe, Kyaw Kyar	WeBPoT5.12	10	
Terrill, Philip Ian	ThGT1.4	73		ThBPoT23.5	51	
Tervé, Pierre	WeET19.1	32	Toepfner, Nicole	WeET1.3	26	
Tessadori, Jacopo	ThBPoT13.3	47	Toffolo, Gianna	FrBPoT10.1	92	
	ThFPoT14.9	68	Togashi, Kaori	ThFPoT6.9	63	
Tessarolo, Francesco	FrBPoT4.5	89	Togneri, Roberto	WeAT5.3	2	
	FrBPoT22.4	97	Tognola, Gabriella	FrAT4.1	CC	
Testori, Alessandro	WeBPoT10.4	13		FrAT4.3	80	
	FrBPoT4.17	89	Togo, Fumiharu	SaBPoT1.22	134	
Teutsch, Tanja	FrBPoT7.6	91	Tohyama, Takeshi	SaBPoT4.13	138	
Tey, Hongliang	ThBPoT5.25	43		SaBPoT4.14	138	
	FrFPoT2.32	109	Tokuda, Takashi	ThBPoT12.2	47	
Tezuka, Mayuko	FrAT12.5	83		FrFPoT2.35	109	
Thaha, Mohamed	ThGT2.3	73		FrFPoT2.36	109	
Thakoor, Kaveri	FrFPoT2.28	109	Tolkacheva, Elena	ThFPoT10.8	65	
				FrBPoT1.2	84	
				ThET3.4	55	
				Toman, Henrietta	ThGT7.2	75

Tomasini, Marco	ThBPoT7.8	45	Trettel, Arianna	SaAT10.3	130
Tome, Ana Maria	WeAT5.2	2	Trew, Mark L.	WeCT2.3	21
Tomic, Tijana Dimkic	ThFPoT12.19	67		SaAT16.3	131
Tomimatsu, Keisuke	FrFPoT9.8	119	Triantafyllou, Areti	ThGT7.4	75
Tominaga, Takanori	ThFPoT12.13	66	Tribula, Martin	ThBPoT23.1	51
Tomita, Naohide	SaBPoT7.11	144	Tridandapani, Srini	WeBPoT5.10	10
Tomizuka, Masayoshi	ThBPoT18.11	50		FrDT5.2	98
Tomycz, Nestor	FrBPoT19.3	96	Trimer, Renata	ThBPoT11.4	47
Tonazzini, Ilaria	FrET10.6	103		SaBPoT4.21	138
Tong, Jijun	WeBPoT3.4	9	Trimer, Vitor	ThBPoT11.4	47
Tong, Liu Zhu	ThET10.3	57		SaBPoT4.21	138
Tong, Shanbao	ThGT19.1	C	Trindade, Isabel	ThET2.3	54
	ThGT19.5	78	Trinh, Thai	FrFPoT9.36	120
	FrAT19.1	CC	Triulzi, Fabio Maria	ThFPoT5.11	63
	FrAT19.6	84	Trivella, Maria G.	ThFPoT18.6	71
	FrET3.1	CC	Triventi, Michele	FrDT9.4	99
	FrET3.4	101		FrET15.4	104
	SaAT10.6	130	Troccez, Jocelyne	WeAT1.1	C
Tong, Wei	FrFPoT4.14	112		WeAT1.6	1
Tongpeng, Wasinee	ThBPoT9.4	45		WeCT6.1	C
Tonhajzerova, Ingrid	WeCT18.4	25		WeCT6.2	22
Tonietto, Matteo	WeET19.3	32	Trojaniello, Diana	ThGT4.4	74
	FrFPoT9.12	119		FrAT1.2	79
Tonin, Luca	SaBPoT6.44	143	Tronstad, Christian	ThBPoT2.8	39
Tononi, Giulio	FrBPoT1.20	85		FrBPoT1.14	85
Tonti, Simone	SaAT19.3	132		FrFPoT3.6	110
Topcu, Cagdas	FrFPoT4.31	113	Tropea, Peppino	ThGT9.1	75
Toppi, Jlenia	WeET17.6	31		ThGT9.2	76
	ThET4.3	55	Troster, Gerhard	WeBPoT23.2	19
	ThGT17.2	77	Troyk, Philip	WeBPoT14.1	15
Toptas, Ersin	SaBPoT5.6	139		WeBPoT14.2	15
Töreyn, Hakan	ThBPoT6.2	44	Trucco, Emanuele	FrAT7.4	81
Torigaki, Toshikazu	SaBPoT5.40	141		SaAT7.4	129
Torimitsu, Keiichi	FrFPoT4.10	112	Trujillo, Paula	ThGT19.1	77
Torlasco, Camilla	FrDT1.5	98	Trujillo-León, Andrés	ThBPoT18.6	50
Torniainen, Jari	FrBPoT8.3	91	Truong, Bao C. Q.	ThBPoT2.21	40
Tornow, Ralf-Peter	ThGT7.3	75	Truong, Dennis Q.	WeAT10.5	4
Torrado-Carvajal, Angel	FrET19.6	106	Truong, Duy Thanh	SaBPoT8.15	144
Torre-Celeizábal, Claudia	FrBPoT23.4	97	Truong, Quang Dang Khoa	ThFPoT2.1	60
Torres, Abel	WeCT13.5	24	Tsai, David	FrGT8.2	122
	FrBPoT19.2	96	Tsai, Yi-Heng	FrFPoT6.13	117
Torres, Andrea	FrFPoT9.4	118	Tsai, Yuh-Show	FrFPoT2.15	108
Torres, Gabriela	ThET6.4	56	Tsakalidis, Athanasios	ThET16.3	58
Torres, Sebastian	FrBPoT22.4	97	Tsakanikas, Panagiotis	FrBPoT9.6	92
Torricelli, Alessandro	SaDT4.1	CC	Tsanakas, Panayiotis	WeBPoT25.6	20
	SaDT4.2	145	Tsantis, Stavros	SaBPoT2.1	135
Tortora, Giuseppe	ThFPoT18.6	71	Tsara, Venetia	FrAT4.4	80
	FrBPoT22.5	97	Tseng, Wei-Kung	SaBPoT4.9	138
Tortoricci, Claudio	WeAT7.6	3	Tsiakaka, Olivier	ThFPoT4.6	62
Toschi, Nicola	WeBPoT13.2	14	Tsianos, Epameinondas	ThBPoT5.38	43
	ThET4.4	55	Tsianos, Vasileios	ThBPoT5.38	43
	ThFPoT5.4	62	Tsiknakis, Manolis	WeBPoT25.7	20
	FrDT9.1	99		ThBPoT24.4	52
Toselli, Benedetta	WeAT19.1	6		FrBPoT2.6	86
Toth, Janos	ThGT7.2	75		FrBPoT19.7	96
Touati, Youcef	WeCT17.2	25	Tsimpiris, Alkiviadis	ThET18.4	59
Toumazou, Christofer	ThAT20.6	38	Tsipouras, Markos G.	ThBPoT5.38	43
Toval, Ambrosio	WeBPoT25.5	20	Tsirmpas, Charalampos	FrFPoT6.25	117
Toyoba, Atsushi	FrFPoT9.9	119	Tsolaki, Anthoula	ThFPoT2.2	60
Toyoda, Masayuki	FrFPoT2.8	108	Tsolaki, Magda	ThFPoT2.2	60
Toyoda, Shuichi	WeCT8.4	23		FrGT10.6	123
Töyräs, Juha	FrFPoT5.24	115	Tsourides, Kleovoulos (Leo)	WeCT3.4	21
Traitruengsakul, Supachan	FrBPoT3.21	88	Tsow, Francis	FrDT5.4	98
Tran, Anh Le	ThBPoT9.2	45	Tsuboko, Yusuke	WeAT12.5	4
Tran, Michel	SaAT6.5	129	Tsubouti, Natsuko	FrFPoT8.4	117
Tran, Nham	ThAT20.4	38	Tsuchiya, Kazuo	ThGT9.6	76
Tran, Phat	WeAT12.1	4		FrBPoT18.3	95
	WeBPoT21.5	18		SaBPoT5.23	140
Tran, Thao	FrET3.2	101	Tsuchiya, Yoshio	ThET9.2	57
Tran, Vinh Phuc	ThFPoT2.15	61		ThET9.3	57
Tran, Yvonne	WeBPoT1.12	8	Tsuda Kenichiro, Kenichiro	ThFPoT19.1	71
	FrBPoT13.11	94	Tsuji, Toshio	WeBPoT17.4	17
Trap, Lotte	FrBPoT1.23	85		FrAT2.1	79
Trastulla, Lucia	SaBPoT8.22	145		FrAT5.6	80
Trautmann, Eric	FrGT10.1	123	Tsujiuchi, Nobutaka	WeBPoT1.6	8
Traver, Vicente	WeET12.1	CC	Tsukada, Kosuke	FrFPoT3.5	110
	WeET12.3	30		SaBPoT3.8	137
	SaAT20.1	C	Tsukiya, Tomonori	SaBPoT4.8	138
	SaAT20.4	132	Tsumagari, Yuko	SaBPoT6.33	142
Trematerra, Diego	ThFPoT17.14	70	Tsumura, Ryosuke	ThBPoT6.3	44
Tremblay, Jaelle	ThET9.4	57			

Tsunoda, Keisuke	FrFPoT1.25	107
	FrFPoT1.30	108
Tsunomori, Akinori	ThAT19.4	38
Tsutsui, Hiroshi	SaBPoT5.30	140
Tsuzuki, Marcos de Sales Guerra	ThET19.5	59
Tsuzuki, Yutaka	FrFPoT8.4	117
Tu, Yiheng	WeBPoT3.10	9
	WeCT4.2	21
	ThAT18.3	37
	ThAT18.5	37
Tucci, Mauro	WeBPoT18.1	17
Tucci, Valter	WeBPoT3.12	9
Tulppo, Mikko	ThAT5.3	34
Tuncali, Kemal	FrFPoT5.41	116
Tuninetti, Daniela	ThAT17.5	37
Tuomi, Tiinamajja	WeET12.1	30
Tuomilehto, Jaakko	WeET12.1	30
Tura, Andrea	ThAT5.4	34
	FrFPoT1.28	108
Turati, Luca	FrBPoT22.6	97
Turco, Dario	ThBPoT5.34	43
Turconi, Anna Carla	ThBPoT18.7	50
	FrGT3.6	121
Turgeon, Philippe	ThFPoT8.3	64
Turianikova, Zuzana	WeCT18.4	25
Turini, Giuseppe	WeBPoT6.17	11
Turley, Glen	FrBPoT11.1	92
Turley, Jordan Alexander	FrBPoT4.11	89
Turner, Amanda	WeBPoT16.2	16
Turolla, Andrea	ThBPoT14.12	49
Turra, Ettore	FrDT8.2	99
Turra, Giovanni	WeBPoT6.13	11
Tuytelaars, Tinne	FrET2.4	100
Tyberg, John	ThBPoT10.7	46
Tzallas, Alexandros	ThBPoT5.38	43
Tzortzi, Marianna	FrBPoT5.2	90
	FrFPoT9.20	119
Tzortzis, Konstantinos N	FrET19.3	105
Tzu-Huai, Wu	FrFPoT6.19	117

U

Ubeda, Andres	FrFPoT4.40	113
Uchida, Hideyuki	FrFPoT3.5	110
Udhayakumar, Radhagayathri	ThGT5.5	74
	SaAT5.4	128
Uehara, Gen	FrET7.5	102
Ueno, Akinori	SaBPoT3.15	137
Ueno, Hiroshi	FrFPoT1.27	107
Ueno, Ken	FrBPoT20.6	96
Ueno, Shoogo	SaBPoT6.7	141
Ugander, Martin	SaBPoT4.27	139
Ugolini, Giovanni Stefano	WeAT16.1	5
Uhlig, Holm	FrET5.5	102
Uji, Akihito	ThFPoT6.9	63
Ukmar, Maja	ThFPoT5.3	62
Ulgen, Yekta	SaBPoT3.35	137
Ullah, Khalil	ThET5.6	56
Ulloa, Marco A.	SaBPoT6.36	143
Ulrich, Hannes	WeCT15.4	24
Ulug, Aziz	FrFPoT2.26	109
Ulukaya, Sezer	ThGT18.3	77
Umapathy, Karthikeyan	ThGT5.6	74
Umar, Lazuardi	FrET8.6	102
Umehira, Yuuichi	WeCT10.2	23
Umemura, Shin-ichiro	FrBPoT5.1	90
Umeno, Shinya	FrBPoT20.6	96
Umesawa, Yumi	SaBPoT5.5	139
	SaBPoT5.13	140
Umezu, Tomohiro	SaBPoT8.10	144
Umilta, Alberto	ThFPoT14.6	68
Unguez, Graciela	WeET15.2	31
Ungureanu, Constantin	FrBPoT1.16	85
Ungureanu, G. Mihaela	ThFPoT1.10	60
	FrBPoT1.16	85
	SaBPoT1.31	134
Uno, Shota	ThET11.3	58
Unsworth, Charles Peter	ThAT17.2	CC
	ThGT18.1	77
Unukpo, Akpofure	FrBPoT17.7	95

Upadhyaya, Sudhindra	FrET16.3	104
Ura, Tetsuya	FrFPoT1.25	107
	FrFPoT1.30	108
Urbina-Medal, E. Gerardo	ThET13.1	58
Urman, Noa	FrBPoT23.1	97
Urmi, Nusrat Jahan	FrFPoT3.28	111
Urta, Oiane	ThET10.6	57
Ursino, Francesco	ThBPoT19.3	50
Ursino, Mauro	WeBPoT4.2	9
	FrBPoT10.4	92
	SaAT2.1	127
	SaAT2.1	C
	SaAT2.4	127
Urtnasan, Erdenebayar	FrBPoT3.2	87
Urwyler, Prabitha	SaAT15.4	131
Uscumlic, Marija	SaBPoT6.23	142
Uslan, Volkan	FrGT16.1	124
	SaAT21.1	132
Üstek, Duran	FrBPoT9.1	91
Usui, Chiyoko	WeBPoT11.11	8
Uto, Sadahito	SaBPoT2.23	136
	SaBPoT3.10	137
	SaAT2.4	127
Utriainen, David	WeET2.4	27
Uuetoa, Tomohiko	ThBPoT2.17	39
Uuetoa, Hasso	ThBPoT2.17	39
Uuetoa, Tiina	ThBPoT2.17	39
Uwamori, Hiroyuki	SaBPoT7.4	143
	SaBPoT7.6	143
Uyar, M. Umit	ThFPoT9.10	64
Uysal, Hilmi	FrFPoT4.31	113

V

V, Adithya	FrBPoT1.3	84
Vaclav, Snašel	ThFPoT4.3	62
Vaghefi, Ehsan	ThAT2.2	33
Vai, Mang I.	ThFPoT14.4	68
Vaida, Mircea-Florin	SaAT21.6	133
Vaini, Emanuele	ThDT6.2	53
	ThET1.3	54
	FrET12.6	104
Valdagni, Riccardo	ThFPoT3.5	61
Valderas, María Teresa	FrBPoT3.6	87
Valdez Jasso, Daniela	ThBPoT16.3	49
Valente, Virgilio	WeBPoT9.5	13
	ThGT20.6	78
Valentim, Ricardo Alexandro de Medeiros	FrFPoT6.11	116
Valentini, Simona	WeET10.3	29
Valentini, Vincenzo	WeBPoT6.16	11
	ThGT6.6	75
Valenza, Gaetano	WeAT13.4	5
	WeET5.1	28
	WeET5.2	28
	WeET20.6	32
	ThFPoT14.2	68
	FrAT12.4	82
	FrBPoT2.25	87
	SaAT5.6	128
Valenzuela, Waldo	ThBPoT5.22	43
Valerio, Lorenzo	WeBPoT21.5	18
Valero, Javier	SaBPoT3.28	137
Valero-Cuevas, Francisco	WeCT1.6	21
Valigi, Paolo	FrBPoT10.3	92
Valinoti, Maddalena	FrET6.2	102
Vallati, Mauro	WeBPoT6.16	11
Valle Lopera, Diego Andrés	FrGT5.3	121
Valle, Maurizio	ThFPoT12.2	66
Valle-Casas, Omar	ThBPoT22.1	51
Vallejo, Vanessa	WeBPoT23.3	19
Vallette, Farouk	ThFPoT4.6	62
Vallmitjana, Alex	FrBPoT4.15	89
	SaBPoT2.29	136
Vallone, Niccolò	WeCT13.2	24
Valluri, Prashant	FrAT20.5	84
Vallverdu, Montserrat	WeCT18.5	25
	FrBPoT3.6	87
Valter McConville, Kristiina M.	ThBPoT14.15	49
Valvano, Giuseppe	FrGT7.6	122
Valve, Päivi Marianna	FrGT15.4	124
van Almkerk, Marc	ThFPoT12.6	66

van de Berg, Raymond	FrET15.2	104	Varigos, George	ThBPoT5.19	42
Van de Vel, Anouk	FrAT5.2	80	Varnfield, Marlien	SaDT5.1	145
Van den Berg, André Christiaan	FrFPoT3.28	111	Varon, Carolina	SaBPoT1.13	133
	SaBPoT7.16	144	Varray, François	WeCT6.6	22
van den Born, L. I.	FrAT7.2	81	Varsier, Nadege	ThBPoT9.15	46
Van Den Broeck, Bert	ThFPoT19.2	71	Vasco, Gessica	ThBPoT14.5	48
Van Den Haute, Chris	FrDT10.5	99	Vasefi, Fartash	FrET7.6	102
Van Den Heever, Dawie	FrBPoT17.1	95	Vasilaki, Eleni	ThFPoT2.9	61
	SaDT11.2	146	Vassanelli, Stefano	WeCT5.2	22
Van den Herrewegen, Inge	WeBPoT6.15	11		ThFPoT13.11	68
van der Heijden, Patrick	ThFPoT22.5	72		FrDT10.1	99
van der helm, Frans C.T.	FrBPoT18.1	95		FrDT10.1	CC
van der Hout-van der Jagt, Beatrijs	WeAT8.2	3		FrDT10.4	99
Van der Loos, H. F. Machiel	ThBPoT14.8	49	Vassena, Elena	FrBPoT13.10	94
	FrGT11.2	123	Vasyiltsov, Ihor	FrFPoT3.34	111
van Dijk, Johannes	FrFPoT4.41	113	Vato, Alessandro	WeAT3.1	1
Van Dort, Christa	FrFPoT1.22	107		WeAT3.1	CC
Van Duijvenboden, Stefan	WeAT4.1	2	Vatteroni, Monica	ThFPoT18.6	71
Van Eycke, Yves-Rémi	FrGT19.5	125	Vavva, Maria	WeBPoT10.6	13
Van hamme, Hugo	ThFPoT19.2	71	Väyrynen, Eero	WeAT5.5	2
van Hemert, Jano	ThFPoT6.1	63	Vaz, Rui	WeBPoT21.11	18
van Heusden, Klaske	WeAT21.2	7		ThBPoT13.11	48
Van Hoof, Chris	WeAT20.3	7		SaBPoT4.28	139
Van Houten, Elijah	ThAT8.6	35	Vazzoler, Ivan	ThBPoT14.3	48
Van Huffel, Sabine	WeCT4.1	21	Vecchiato, Giovanni	ThAT11.4	36
	WeCT4.1	CC		SaAT10.3	130
	WeCT17.6	25	Veerle, Baekelandt	FrDT10.5	99
	FrAT5.2	80	Veet, Tiffany	FrFPoT2.18	109
	FrAT18.1	CC	Vehkaoja, Antti	ThFPoT7.8	64
	FrAT18.5	83		FrBPoT1.9	85
	FrET4.1	C		FrBPoT1.10	85
	FrET4.3	101	Velez, Daniela	ThBPoT16.3	49
	FrET4.6	101	Velluto, Lucia	ThET10.1	57
	SaBPoT1.13	133	Veluvolu, Kalyana C.	ThAT3.1	33
	SaBPoT1.15	133		ThBPoT3.9	41
	SaBPoT1.20	134	Vemishetty, Naresh	ThFPoT23.1	72
	SaBPoT1.27	134	Vemulapalli, Spandana	FrBPoT16.2	95
van Hunnik, Arne	FrAT8.4	81	Vena, Daniel	WeET9.1	29
van Katwijk, Tim	ThFPoT17.6	70	Vendrametto, Tobia	ThFPoT17.8	70
Van Leeuwen, Peter	ThFPoT10.2	65	Venegoni, Anna	FrFPoT4.21	112
Van Lier, Monique G. J. T. B.	SaBPoT2.39	136	Venkataramani, Krithika	WeET7.6	29
van Mastrigt, Ron	FrFPoT1.13	107	Venkatesan, Shankar	WeCT9.6	23
van Mierlo, Pieter	ThGT17.5	77	Venturino, Ezio	ThFPoT11.2	65
Van Oosterwyck, Hans	WeBPoT10.6	13	Verbeni, Antonella	FrFPoT5.30	115
van Oostrom, Johannes	SaAT2.5	127	Verdini, Federica	ThFPoT22.10	72
van Pul, Carola	WeAT8.2	3		FrFPoT3.32	111
van Rienen, Ursula	ThAT16.2	37		FrGT15.6	124
	ThBPoT16.6	49		SaAT15.2	130
	ThFPoT13.6	68	Verdú, Gumersindo	FrBPoT23.3	97
	SaBPoT6.17	142	Vergani, Marco	ThBPoT7.11	45
	SaBPoT8.14	144	Vergara, Victor Manuel	ThAT18.2	37
	SaBPoT8.15	144		ThGT19.2	77
van Rooij, Britt	WeBPoT21.3	18		FrGT19.1	125
van Schaik, André	FrGT17.2	124	Vergheze, George	WeBPoT13.1	14
Van Toen, Carolyn	FrET10.2	103		WeCT13.1	24
van Vliet, Lucas	FrAT7.2	81		WeCT13.4	24
Vandamme, Jonathan	WeCT13.3	24	Verma, Bhawna	ThFPoT10.7	65
Vandecasteele, Marianne	WeAT20.3	7		ThFPoT12.27	67
Vanden Berghe, Pieter	FrFPoT2.14	108	Verma, Piyush	ThFPoT12.27	67
Vandenbergh, Michel Erminio	ThET7.1	56	Verma, Rama Shanker	ThBPoT8.2	45
Vandenbergh, Rik	WeET17.3	31	Vermathen, Peter	ThBPoT5.22	43
Vandenberk, Bert	FrET4.3	101	Vermeer, Koenraad A.	FrAT7.2	81
Vandervoort, Pieter	WeET6.3	28	Vermeulen-Giovagnoli, Barbara	WeAT8.2	3
Vanegas, Pablo	FrFPoT7.2	117	Vernazza, Stefania	ThAT16.1	37
Vanello, Nicola	FrBPoT2.23	87	Veronese, Mattia	WeET19.3	32
	FrBPoT2.24	87	Verri, Alessandro	ThFPoT9.8	64
Vanhatalo, Sampsa	WeCT4.1	21	Verrilli, Francesca	ThET16.2	58
Vanjari, Siva Rama Krishna	WeBPoT24.5	20	Verset, Laurine	FrGT19.5	125
	ThFPoT7.5	63	Vervisch, Jan	WeCT4.1	21
Vannetti, Federica	SaBPoT1.6	133	Vesin, Jean-Marc	WeBPoT2.8	8
Vannozi, Lorenzo	WeAT16.6	6	Vettoretti, Martina	ThAT5.1	33
Vanrumste, Bart	ThFPoT19.2	71		ThAT5.2	34
	ThFPoT22.1	72		FrFPoT9.34	120
	ThFPoT22.2	72	viardot, geoffrey	ThGT2.5	73
	FrAT5.2	80	Vicario, Francesco	WeBPoT13.4	14
	FrET2.4	100		ThGT10.4	76
Vanthornhout, Jonas	ThGT3.4	74	Vicentini, Federico	ThFPoT17.16	70
Vanthournhout, Léna	ThFPoT17.19	70	Vidal, Maria-Esther	ThAT12.6	36
Vanutelli, Maria Elide	ThBPoT14.9	49	Vidal-Verdu, Fernando	ThBPoT18.6	50
Vappou, Jonathan	ThAT15.5	36	Vidrih, Zlatko	WeBPoT10.3	13
Varadan, Vinay	FrBPoT10.5	92	Vidrios-Serrano, Carlos	WeBPoT17.3	17
	FrBPoT10.6	92			

Vieira dos Anjos, Fabio	ThBPoT14.4	48
	SaBPoT6.24	142
Vieira, Gilson	WeCT19.4	26
Vieira, Pedro Miguel	ThBPoT5.20	42
Vieira, Taian	ThBPoT14.3	48
	ThBPoT14.4	48
	FrBPoT15.4	94
	SaBPoT6.24	142
Viereck, Ulrich	ThET10.2	57
Vignarajan, Janardhan	WeCT8.6	23
Vignoud, Séverine	SaAT4.3	128
Viguera-Gomez, Flavio	WeBPoT17.3	17
Viguiet, Eric	ThAT16.5	37
Viigimaa, Margus	FrBPoT8.1	91
Viik, Jari	WeCT8.2	23
Vijayakumar, Rekha	WeBPoT14.3	15
Vijayakumar, Sethu	FrET11.3	103
Vijayaseenan, Deepu	FrFPoT9.15	119
Vilaça-Alves, José	WeBPoT22.7	19
	WeBPoT22.8	19
	ThFPoT11.5	66
Vilarinho, António	SaBPoT4.28	139
Villa Parra, Ana Cecilia	ThAT17.2	37
Villalobos, Joel	FrBPoT24.1	97
Villalonga, Claudia	ThFPoT22.6	72
Villani, Valeria	ThBPoT11.2	46
	SaAT4.1	128
Villasante, Aranzazu	ThBPoT17.4	50
Vilser, Walthard	SaBPoT1.25	134
Vinet, Alain	SaBPoT4.30	139
Vinken, Jeroen	ThFPoT12.6	66
Vinzenz, Fleischer	ThFPoT5.13	63
Viravaidya-Pasuwat, Kwanchanok	ThBPoT15.1	49
Virji-Babul, Naznin	ThET19.1	59
	FrET10.2	103
	FrFPoT4.18	112
	SaBPoT8.20	145
Virkkala, Jussi	FrBPoT1.21	85
Viscor, Ivo	FrBPoT11.2	92
Visentin, Roberto	ThBPoT9.5	45
Visentin, Silvia	WeAT7.2	2
Visentini-Scarzanella, Marco	SaAT8.1	129
Visetti, Enrico	FrET20.5	106
Viswanathan, Srikrishnan	SaBPoT2.30	136
Vitharana, Kalpani	FrGT8.3	122
Vitiello, Nicola	ThET8.2	56
	ThET8.5	57
Vito, Domenico	FrBPoT20.5	96
Vivian, Michele	ThBPoT18.12	50
Vo, Quang N.	WeCT6.1	22
Vodlak, Teja	WeBPoT10.3	13
Vogazianos, Paris	WeAT15.6	5
Vogel, Pascal	WeET17.6	31
Vogiatzis, Ioannis	FrAT4.4	80
Voglreiter, Philip	ThAT7.6	34
Vogt, Christian	WeBPoT23.2	19
Voitsekhivska, Tetiana	FrBPoT8.6	91
Volk, Tobias	ThBPoT7.9	45
Volker, Mayer	FrAT16.1	83
von Borries, Ricardo F.	ThBPoT1.3	38
von Rosenberg, Wilhelm	WeCT20.1	26
von Spiczak, Sarah	FrAT5.3	80
Vondra, Vlastimil	FrBPoT11.2	92
Vora, Shrenik	ThFPoT8.4	64
Voros, Janos	ThBPoT17.1	49
Vorstius, Jan	FrFPoT5.30	115
Vosburgh, Kirby	FrFPoT5.18	115
Voss, Andreas	WeAT13.6	5
	WeET9.6	29
	ThBPoT3.3	40
Voulgaridou, Georgia-Persephoni	ThAT16.4	37
Vozzi, Federico	FrAT6.6	81
Vrahatis, Aristidis	ThET16.3	58
Vrazic, Sacha	ThBPoT2.11	39
Vuegen, Lode	ThFPoT19.2	71
Vui, Le-Ba	ThFPoT22.6	72
Vukcevic, Miodrag	ThFPoT11.1	65
Vunjak-Novakovic, Gordana	ThBPoT17.4	50
Vuong, Nhu Khue	ThBPoT24.2	51

W

Waagepetersen, Helle	WeAT16.4	5
Wachel, Pawel	FrGT18.2	125
Wada, Hikaru	WeBPoT24.6	20
Wada, Takahiro	FrFPoT4.29	113
	SaBPoT6.12	141
Wada, Tsutomu	SaBPoT5.5	139
Wada, Yasuhiro	ThFPoT5.7	62
Wadamori, Naoki	WeBPoT21.8	18
Wade, Eric	ThFPoT18.7	71
	FrBPoT18.2	95
Wade, Joshua	ThET3.3	55
Wadehn, Federico	WeCT10.6	23
	ThET5.4	56
Wadsack, Christian	SaAT16.1	131
Wagenpfeil, Jay	ThET16.1	58
	FrAT16.1	83
	FrET5.3	101
Wagner, Benjamin	SaBPoT4.23	139
Wagstaff, Anthony	FrAT1.3	79
Wahid, Md. Ferdous	FrBPoT11.3	92
Wail, Simon	ThFPoT2.5	61
Wajid, Mumtaz	FrGT11.4	123
Wake, Naoki	ThAT10.2	35
Wakimoto, Shuichi	FrFPoT3.14	110
Wald, Lawrence L.	ThET4.4	55
	FrDT9.1	99
	FrDT9.6	99
Walker, Frederick Rohan	FrBPoT4.11	89
Wall, Carolin	ThBPoT5.25	43
	FrFPoT2.32	109
Wallace, Gordon	FrFPoT4.14	112
Wallace, Vincent	ThBPoT2.21	40
Wallwiener, Diethelm	FrAT16.1	83
Walsh, Lorcan	ThBPoT25.2	52
Walston, Steven	ThBPoT12.4	47
Walter, Nicolas	ThFPoT1.6	60
Walt, Hervé	WeCT13.3	24
Wan, Bai-kun	WeBPoT17.2	17
Wan, Eric	ThGT21.2	78
Wan, Feng	ThFPoT14.4	68
Wan, Min	FrBPoT11.5	92
Wan, Mingxi	FrBPoT9.4	92
Wan, Xiaofeng	FrBPoT11.5	92
Wan, Xiaonan	ThBPoT4.4	41
	ThFPoT3.8	61
Wang, Aihua	ThET10.4	57
	ThFPoT12.12	66
	ThFPoT12.28	67
	FrAT16.6	83
Wang, Baitong	ThBPoT25.3	52
Wang, Boshuo	WeCT10.4	23
Wang, Changhan	ThAT7.4	34
Wang, Chengjie	WeAT16.4	31
Wang, Cheng-Xiang	ThBPoT1.4	38
Wang, Chuanchu	SaAT15.6	131
Wang, Congzhi	ThET6.6	56
	ThFPoT1.9	60
	FrGT7.3	122
Wang, Daihou	ThAT19.1	38
	ThBPoT5.17	42
Wang, Defeng	SaAT7.6	129
Wang, Dong	ThGT10.4	76
Wang, Duo	WeET8.5	29
Wang, Haipeng	WeCT11.3	24
Wang, Haofei	WeCT3.3	21
Wang, Hengzhi	SaAT1.5	127
Wang, Hui	ThBPoT12.5	47
Wang, J.L.	WeBPoT10.9	14
	FrFPoT9.13	119
Wang, Jiahui	ThBPoT6.13	44
Wang, Jia-Jung	FrFPoT9.28	120
	SaBPoT4.9	138
Wang, Jianfei	FrAT8.6	81
Wang, Jianqing	ThGT20.5	78
Wang, Jing	FrGT15.2	124
	SaAT6.3	128
Wang, Jingjing	FrET19.1	105
Wang, Junchao	FrDT16.5	100
Wang, Kejia	FrDT2.5	98

Wang, Ken Kang-Hsin	FrBPoT23.5	97	Watanabe, Masafumi	SaBPoT7.4	143
Wang, Lei	WeBPoT3.7	9	Watanabe, Soichi	FrFPoT3.15	110
Wang, Long	ThET8.5	57	Watanabe, Takashi	FrBPoT15.7	94
Wang, Lung-Shuo	FrFPoT6.19	117	Watanabe, Tetsuyou	FrBPoT8.7	91
Wang, May D.	WeAT9.4	3		FrGT11.3	123
	WeBPoT6.5	11	Watanabe, Tomoki	SaBPoT3.26	137
	WeCT9.1	CC	Watanabe, Yoshiaki	FrFPoT2.37	110
	FrBPoT9.3	92	Watson, Meghan	WeET15.4	31
	FrBPoT20.4	96	Wayte, Sarah	FrBPoT11.1	92
	SaAT21.5	133	Webb, Alexandra	WeET6.6	28
Wang, Mengdie	ThFPoT11.3	65	Webb, David	ThFPoT11.1	65
Wang, Minkun	SaAT21.4	133	Weber, Stefan	ThBPoT5.5	42
Wang, Philip	FrGT11.2	123	Weddell, Stephen J.	ThET3.5	55
Wang, Ping	ThBPoT7.6	45	Wegener, Joachim	FrET8.1	102
	ThDT10.4	54	Wehry, Hillary	SaAT2.5	127
	FrFPoT6.17	117	Wei, Chun-Shu	FrBPoT14.5	94
	FrGT9.6	123	Wei, Dongming	SaAT1.6	127
	FrGT19.2	125	Wei, Xuefeng	ThBPoT13.10	48
Wang, Qi	FrAT10.6	82	Weidmann, Damien	SaDT8.4	146
Wang, Qian	WeBPoT8.5	12	Weikersdorfer, David	ThBPoT12.6	47
	ThGT21.5	78	Weiland, James	WeCT10.4	23
Wang, Qing	FrBPoT5.12	90		ThBPoT12.4	47
Wang, Qingjie	ThFPoT10.4	65	Weimer, James	WeCT4.4	21
Wang, Qining	ThET8.5	57	Weinberg, Uri	FrBPoT23.1	97
	ThFPoT15.1	69	Weir, Alexander James	ThBPoT1.4	38
Wang, Shanshan	FrGT7.5	122	Weir-McCall, Jonathan	SaAT7.4	129
Wang, Shouyan	ThET3.6	55	Weizman, Lior	FrFPoT2.33	109
Wang, Shuoyu	FrBPoT22.2	97		FrGT7.2	122
Wang, Siying	ThFPoT19.5	71	Wejer, Dorota	ThET4.5	55
Wang, Tianben	ThFPoT11.7	66	Welikala, Roshan A	ThGT7.1	75
Wang, Weiqun	ThBPoT2.33	40	Wellman, David Andrew	ThGT1.4	73
Wang, Wenfei	ThGT10.2	76	Welsh, Alec	FrET19.1	105
Wang, William S-Y	ThBPoT2.32	40	Wen, Chin-Hua	FrFPoT3.21	111
Wang, Xiaolu	ThGT3.6	74	Wendling, Fabrice	WeBPoT3.6	9
Wang, Xiaoyun	FrFPoT4.20	112		FrAT5.5	80
Wang, Xin	FrFPoT4.36	113	Wendt, Herwig	WeET5.1	28
Wang, Xiu Ying	WeET19.5	32		WeET5.6	28
Wang, Xuemin	ThGT3.6	74	Wenger, Cornelia	ThAT15.1	36
Wang, Yajuan	ThAT12.1	36		ThAT15.1	C
Wang, Yalin	WeAT7.1	2		FrBPoT23.1	97
Wang, Yaxin	WeAT12.4	4		FrBPoT23.2	97
Wang, Yijun	WeBPoT15.3	15		FrBPoT24.5	98
	WeET20.3	32		FrFPoT4.8	112
Wang, Yina	FrBPoT22.2	97	Wensley, David	FrGT17.6	125
Wang, Yingying	ThBPoT13.7	48	Wentink, Eva	FrBPoT3.9	87
Wang, Yinong	FrBPoT5.12	90	Werahera, Priya N.	FrET21.1	CC
Wang, Yiwen	ThAT17.4	37		FrET21.6	106
Wang, Yong	WeBPoT14.7	15	Werbiska, Andrews	FrFPoT9.7	119
Wang, Yubo	ThAT3.1	33	Werghe, Naoufel	WeAT7.6	3
	ThBPoT3.9	41		ThAT19.6	38
Wang, Yueming	FrBPoT13.8	93	Werner, René	SaBPoT2.26	136
Wang, Yufei	FrFPoT5.19	115	Werth, Jan	FrGT17.3	124
Wang, Yu-Kai	FrBPoT14.6	94	Westeren-Punnonen, Susanna	FrFPoT5.24	115
Wang, Yu-Ping	FrBPoT9.4	92	Westin, Jerker	FrFPoT6.5	116
Wang, Yu-Te	WeBPoT15.3	15	Westover, Brandon	WeBPoT2.5	8
	WeET20.3	32		FrBPoT20.3	96
	FrBPoT14.5	94		FrET17.6	105
WANG, ZENAN	ThET7.3	56		FrGT4.6	121
Wang, Zhenglin	FrET6.3	102	Weyer, Sören	FrGT12.4	124
Wang, Zhigong	WeCT11.3	24	Wheeler, Bruce	WeET25.1	C
Wang, Zhihua	ThBPoT2.5	39		FrFPoT3.7	110
Wang, Zhihui	WeCT2.1	21	Wheeler, Jesse	SaAT3.4	127
Wang, Zhongkui	FrAT1.6	79		SaAT3.6	128
	FrAT12.1	82	Whigham, Leah	SaDT8.2	146
Wang, Zhongpeng	WeBPoT17.2	17		SaDT8.4	146
Wang, Zongjie	SaBPoT7.16	144	Whincup, Peter H	ThGT7.1	75
Wannebroucq, Quentin	WeBPoT15.16	16	White, Derek A.	ThBPoT9.9	46
Ward, Kevin	ThBPoT5.7	42	White, Gannon	WeBPoT1.3	7
Ward, Leigh C	ThBPoT24.3	52	White, Neil	SaAT12.4	130
Ward, Tomas	ThAT3.2	33	White, Nick	ThET7.4	56
Warren, Stephen M	ThAT7.4	34	White, Paul	ThFPoT12.18	67
Warren, Zachary	ThET3.3	55	White, Richard	SaAT7.4	129
Wartzek, Tobias	FrGT12.4	124	Wi, Hun	FrFPoT2.12	108
Washizawa, Yoshikazu	WeBPoT3.3	8	Wiard, Richard M.	FrBPoT8.2	91
Wasser, Martin	ThBPoT5.35	43	Wiar, Joe	ThBPoT9.15	46
Wasserman, Yoram	FrBPoT23.1	97	Wibowo, Budi	FrFPoT6.26	117
Wassertheurer, Siegfried	SaBPoT4.2	138	Wibral, Michael	ThET18.5	59
Watanabe, Eiichi	WeBPoT6.11	11	Wick, Carson	WeBPoT5.10	10
	WeET5.1	28			
Watanabe, Hidenori	WeAT3.2	1			
Watanabe, Hiroki	ThFPoT16.1	69			

Widge, Alik	SaAT3.1	127	Wong, Damon	WeBPoT6.2	11
	SaAT3.2	127		WeCT8.3	23
	SaAT3.3	127		ThBPoT5.25	43
	SaAT3.4	127		ThFPoT6.3	63
	SaAT3.5	127		ThGT7.6	75
	SaAT3.6	128		FrAT7.6	81
Widmann, Natalie	FrET3.6	101		FrFPoT2.32	109
Widmer, Antoine	WeAT15.2	5	Wong, John W	FrBPoT23.5	97
Wieczorkowski-Rettinger, Ksawery Franciszek	ThFPoT18.1	70	Wong, Kian Foong	ThFPoT13.5	68
			Wong, Tien Yin	WeBPoT6.2	11
Wiegand, Gert	ThBPoT2.6	39		ThGT7.6	75
	ThBPoT2.7	39		FrAT7.6	81
Wiegel, Martin	FrFPoT6.10	116	Wong, Ting Hway	FrFPoT5.14	114
Wiens, Andrew	WeCT20.2	26	Wong, Yen Ling Jocelyn	WeBPoT5.13	10
Wieringa, Fokko	FrBPoT3.9	87	Wong-Lin, KongFatt	WeBPoT1.10	8
Wiersma, Diederik S.	SaBPoT5.35	141	Wongsawat, Yodchanan	ThFPoT13.3	68
Wiest, Joachim	WeET16.3	31		FrBPoT15.3	94
	FrET8.1	C	Woo, Eung Je	FrFPoT2.12	108
	FrET8.4	102		SaBPoT2.17	135
	FrET8.6	102	Woo, Hyun Soo	ThFPoT17.1	69
Wigdahl, Jeffrey	ThGT7.4	75	Wood, Bradford	SaBPoT2.35	136
	ThGT7.5	75	Wood, Kristin	WeBPoT9.8	13
	FrBPoT4.13	89	Wood, Nathan	SaAT1.4	127
	FrFPoT2.2	108	Wood, Robert	FrBPoT18.4	95
Wiil, Uffe Kock	FrBPoT20.8	96	Woodfield, Tim	ThAT8.6	35
	SaDT2.1	145	Woods, Stephen	WeBPoT19.2	17
Wilaiprasitporn, Theerawit	ThAT3.5	33	Woolford, Susan	FrFPoT6.26	117
Wilches, Carlos Andres	FrFPoT1.24	107	Worrell, Gregory A.	WeET17.1	31
	FrFPoT1.29	108	Wouters, Jan	ThGT3.4	74
Wild, Jiri	WeCT5.3	22	Wrage, Jan-Hinrich	WeCT15.4	24
Wilder-Smith, Einar P V	FrFPoT5.3	114	Wray, Sandra	ThET13.3	58
Wilkie, Richard	WeAT21.5	7	Wriessnegger, Selina	WeBPoT15.2	15
Wilkinson, Fiona	WeBPoT13.3	14		ThAT3.1	CC
Wilkinson, Kevin	ThDT16.2	54		ThAT3.6	33
Willemin, Jérôme	WeET20.5	32	Wright, Andrew	WeBPoT1.3	7
Willems, Rik	FrET4.3	101	Wright, Henry	FrAT2.2	79
Williams, Chris E.	FrBPoT24.1	97	Wright, Steven M.	WeCT7.1	22
Williams, David	SaDT11.5	146		FrFPoT2.7	108
Williams, Ian	ThBPoT13.8	48	Wrobel, James	ThAT7.4	34
Williams, Mark	FrBPoT11.1	92	Wtorek, Jerzy	WeCT8.5	23
Williams, Norman R.	FrAT19.2	84	Wu, Changzhe	ThET10.4	57
Williams, Rhys Matthew James	FrET21.2	106		ThFPoT12.12	66
Willis, Bradley	FrET7.2	102		FrAT16.6	83
Wilson, Emmanuel	ThBPoT20.3	51	Wu, Chia-Hsiang	FrFPoT6.19	117
Win, Htay Aung	ThBPoT9.2	45		SaBPoT2.41	136
Winkelman, Max	ThBPoT23.4	51	Wu, Chung-Yu	FrBPoT24.2	97
Winkler, Bernhard Michael	ThBPoT10.6	46	Wu, Dan	ThBPoT5.27	43
Winkler, Irene	WeET4.5	27	Wu, Guorong	FrBPoT2.10	86
	ThFPoT1.1	60	Wu, Hancong	FrFPoT9.19	119
Winkler, Ludwig	FrBPoT2.26	87	Wu, Hang	WeBPoT6.5	11
Winokur, Eric S.	FrET1.4	100		FrBPoT20.4	96
Winter, Amos	ThFPoT21.2	72	Wu, Jake Meng-Hsi	WeBPoT6.1	11
Winters, Madeline E.	FrFPoT5.27	115	Wu, Jayne	WeBPoT2.7	8
Winzi, Maria	WeET1.3	26	Wu, Jian	WeAT18.1	6
Wirths, Walter	FrET8.3	102	Wu, Jian-He	SaBPoT6.43	143
Wirz, Jessica	ThBPoT10.6	46	Wu, Jiawei	FrFPoT2.5	108
Wise, Peter	SaDT11.1	146	Wu, Jiayi	ThFPoT6.2	63
Wise, Richard G.	WeCT19.2	26	Wu, Kai	WeBPoT5.5	10
Wismueller, Axel	ThGT17.1	77	Wu, Min	WeCT9.4	23
Wissel, Tobias	FrET5.3	101	Wu, Shuicai	WeAT19.5	7
Wither, Rob	FrAT5.4	80	Wu, Tongning	WeCT19.3	26
Witte, Herbert	ThET19.1	CC	Wu, Tsung-Wei	FrGT8.6	122
	ThGT17.1	77	Wu, Wen	FrGT8.3	122
	FrGT4.1	C	Wu, Xiaomei	FrAT8.6	81
	FrGT4.3	121	Wu, Yan	WeBPoT3.7	9
	FrET8.3	102	Wu, Yin	SaAT7.5	129
Wöhrle, Budi	FrAT1.5	79	Wu, Yu	ThGT9.4	76
Wojtusich, Janis	FrET8.3	102	Wu, Zhitong	SaAT15.3	130
Wolf, Bernhard	SaBPoT2.26	136	Wurdemann, Helge Arne	ThFPoT17.4	70
Wolf, Insa M. A.	SaDT4.3	145		SaAT12.6	130
Wolf, Martin	FrET8.5	102	Wyss Balmer, Thomas	FrFPoT1.3	106
Wolf, Peter	ThFPoT17.15	70			
Wolfe, Kevin C.	ThET18.5	59			
Wollstadt, Patricia	FrBPoT8.6	91			
Wolter, Klaus-Juergen	ThAT5.4	34			
Wolzt, Michael	ThFPoT9.3	64			
Wong C, Sara	FrFPoT7.2	117			
	WeAT11.2	4			
Wong, Bernard K. Y.	ThAT15.4	36			
Wong, Christopher Yee					

X

Xenikou, Monika Filitsa	FrBPoT5.2	90
Xi, Xiaoqi	FrAT6.1	80
Xia, Yong	WeET19.4	32
	ThET7.6	56
Xia, Zhao	WeBPoT25.7	20
Xian, Xiaojun	FrDT5.4	98

Xiang, Weiwei	FrBPoT4.13	89	Yamaguchi, Takahiro	FrFPoT2.36	109
Xiang, Zhuolin	ThBPoT6.13	44	Yamaguchi, Takami	FrFPoT8.10	118
Xiao, Di	WeCT8.6	23	Yamaguchi, Yasuyo	FrFPoT3.14	110
Xiao, Fei	ThGT9.4	76	Yamaguchi, Yohei	FrFPoT3.14	110
Xiao, Ran	WeBPoT3.4	9	Yamakawa, Toshitaka	FrFPoT5.29	115
	ThFFPoT14.7	68		SaAT8.3	129
Xiao, Yang	ThET6.6	56	Yamaki, Yuto	SaBPoT3.10	137
	FrGT7.3	122	Yamakoshi, Ken-ichi	FrFPoT3.33	111
Xiaofei, Wang	FrBPoT3.20	88		FrFPoT6.2	116
Xie, Hua	FrFPoT2.7	108		SaBPoT1.21	134
Xie, Jun	ThBPoT2.13	39		SaBPoT4.1	138
	ThFFPoT12.9	66	Yamakoshi, Takehiro	FrFPoT6.2	116
Xie, Shoulie	FrET6.1	102		SaBPoT1.21	134
Xie, Xianghua	ThAT7.1	34	Yamakoshi, Yasuhiro	FrFPoT6.2	116
	ThAT7.1	CC		SaBPoT1.21	134
	ThBPoT4.2	41	Yamamoto Noguchi, Claudia Cecilia	SaAT16.2	131
	ThET7.4	56	Yamamoto, Kimiko	FrFPoT4.45	114
Xie, Xiao-Liang	ThFFPoT17.12	70	Yamamoto, Naoki	SaBPoT5.29	140
	FrAT16.5	83	Yamamoto, Tetsushi	WeBPoT1.6	8
Xie, Yang	FrBPoT21.5	97	Yamamoto, Yoshiharu	WeET5.1	28
Xie, Yaoqin	ThBPoT5.9	42		WeET5.1	C
Xin, Jingmin	ThFFPoT6.2	63		ThET17.3	59
Xing, Fuyong	FrET16.4	104		SaBPoT1.22	134
Xiong, Guanglei	WeET6.5	28	Yamamoto, Yusuke	SaBPoT5.40	141
Xiong, Qiliang	WeET11.6	30	Yamamura, Osamu	FrFPoT4.13	112
Xiong, Wei	WeBPoT5.12	10		SaBPoT1.17	133
Xiong, Zhihui	ThBPoT5.32	43	Yamanaka, Masanori	ThET9.3	57
Xu, Guanghua	ThBPoT2.13	39	Yamane, Takashi	WeAT12.3	4
	ThFFPoT12.9	66		ThBPoT10.1	46
Xu, Guozhen	ThFFPoT6.3	63	Yamanoj, Yusuke	ThFFPoT15.9	69
Xu, Guozheng	ThBPoT18.10	50	Yamashiro, Koichiro	FrAT17.1	83
Xu, Hongming	ThET7.2	56	Yamashita, Akitatsu	SaBPoT7.17	144
	ThET7.5	56	Yamashita, Shohei	SaBPoT1.41	134
Xu, Huijing	FrET10.4	103	Yamato, Masayuki	ThBPoT16.4	49
Xu, Jia	FrGT12.1	123	Yamazaki, Rena	ThAT6.2	34
Xu, Jun	FrBPoT6.5	90	Yambe, Tomoyuki	WeAT12.5	4
Xu, Kedi	FrBPoT13.8	93		WeBPoT23.1	19
Xu, Lin	FrFPoT4.41	113		FrET1.2	100
	SaBPoT1.37	134		SaBPoT4.24	139
Xu, Lisa Xuemin	WeBPoT22.6	19	Yamsa-ard, T.	FrBPoT15.3	94
Xu, Lisheng	ThBPoT2.4	39	Yan, Bernard	WeBPoT3.8	9
Xu, Miao	WeET6.5	28		WeBPoT3.9	9
Xu, Min	ThBPoT4.4	41	Yan, Bin	FrAT6.1	80
	ThFFPoT3.8	61	Yan, Chang	ThFFPoT2.7	61
Xu, Min-Sheng	SaBPoT6.43	143	Yan, Edwin	WeBPoT14.8	15
Xu, Qi	ThFFPoT10.10	65	Yan, Tingfang	ThET8.2	56
Xu, Qimeng	SaAT15.3	130		ThET8.5	57
Xu, Ren	FrFPoT4.38	113	Yan, Xincheng	ThAT7.4	34
Xu, Shan	WeET8.5	29	Yan, Yan	FrBPoT6.2	90
Xu, Sheng	SaBPoT2.35	136	Yan, Yurui	ThFFPoT10.2	65
Xu, Wangyang	FrBPoT6.5	90	Yana, Kazuo	ThET17.1	C
Xu, Yanwu	WeBPoT6.2	11		FrAT17.1	83
	WeCT8.3	23		FrAT17.1	C
	ThGT7.6	75		SaBPoT1.41	134
Xu, Zhen	FrBPoT12.4	93		SaBPoT1.42	134
Xu, Zhiming	WeBPoT15.11	16		SaBPoT1.43	135
Xue, Ning	ThBPoT6.13	44	Yanagihara, Dai	ThGT9.6	76
				FrBPoT18.3	95
				SaBPoT5.23	140
			Yanamadala, Janakinadh	ThBPoT9.2	45
				FrFPoT9.36	120
			Yang, Bey-Jing	ThFFPoT19.3	71
			Yang, Biao	FrBPoT13.5	93
			Yang, Bo	ThFFPoT17.7	70
			Yang, Caiyun	ThBPoT4.4	41
			Yang, Fei	ThFFPoT3.8	61
			Yang, Feng	ThBPoT4.4	41
				ThFFPoT3.8	61
			Yang, Geng	WeET8.4	29
			Yang, Guang-Zhong	WeAT20.6	7
				ThGT8.5	75
			Yang, Hee Kyung	SaBPoT2.37	136
			Yang, Huijuan	ThAT17.6	37
			Yang, Jiajia	WeBPoT17.2	17
			Yang, Jin	SaAT2.3	127
			Yang, Jun	WeBPoT8.5	12
			Yang, Limin	ThFFPoT14.4	68
			Yang, Lin	FrET16.4	104
			Yang, Lingling	FrBPoT3.23	88
			Yang, Ran	ThBPoT5.6	42
			Yang, Shasha	SaAT7.5	129

Y

Yabe, Toru	FrFPoT1.27	107	Yang, Shasha	SaAT7.5	129
Yabuki, Yoshiko	ThFFPoT15.2	69			
Yadav, Kuleesha	ThBPoT5.35	43			
Yadid-Pecht, Orly	SaAT8.4	129			
Yadollahi, Azadeh	WeET9.1	29			
	WeET18.6	32			
	FrBPoT1.22	85			
Yagi, Naomi	FrFPoT1.27	107			
Yagi, Nobuaki	WeBPoT6.20	12			
Yagi, Tetsuya	WeCT10.2	23			
	ThET11.3	58			
	SaBPoT6.11	141			
Yagi, Tohru	ThAT3.5	33			
Yakami, Masahiro	ThFFPoT6.9	63			
Yamada, Akihiro	WeAT12.5	4			
	WeBPoT23.1	19			
Yamada, Kenji	FrFPoT6.15	117			
	FrFPoT6.21	117			
Yamaguchi, Ikuhiro	SaBPoT1.22	134			
Yamaguchi, Shumpei	WeBPoT15.15	16			

Yang, Shu-Yu	ThFPoT12.21	67	Yoo, Paul	ThBPoT9.11	46
Yang, Tao	WeCT7.4	22	Yoon, Chi Woo	FrFPoT2.21	109
	ThBPoT23.5	51	Yoon, Chiyul	FrFPoT5.21	115
Yang, Tzu-Sen	ThBPoT1.5	38		FrFPoT6.6	116
	FrGT8.6	122	Yoon, Heenam	ThDT1.4	52
Yang, Yi-Hsuan	WeBPoT3.5	9		ThFPoT18.3	71
Yang, Yuan	FrBPoT15.5	94		FrET12.2	104
Yang, Yunsheng	SaAT1.5	127		SaBPoT1.1	133
Yang, Yuxiao	WeBPoT15.13	16		SaBPoT6.30	142
	WeET10.5	29	Yoon, Hyung-Jin	FrFPoT1.15	107
Yang, Zhenda	SaAT1.5	127		FrFPoT6.6	116
Yang, Zhi	ThBPoT25.3	52		FrFPoT8.11	118
	ThGT3.1	73	Yoon, Jang W	FrFPoT5.33	115
Yanni, Joseph	WeAT2.3	1	Yoon, Paul K.	WeBPoT7.6	12
Yano, Hajime	FrFPoT4.27	113		ThBPoT6.9	44
Yano, Kenichi	ThBPoT8.7	45	Yoon, Seung Keun	ThFPoT2.12	61
Yao, Lei	WeBPoT14.7	15		FrAT17.3	83
Yao, Lin	FrFPoT4.39	113	Yoon, Siyeop	ThGT8.3	75
Yap, Philip	ThBPoT24.2	51	Yoon, Yousang	FrFPoT3.18	111
Yapici, Murat Kaya	ThET5.2	55	Yoshida, Eiichi	ThAT8.4	35
Yarman Vural, Fatos	ThAT18.1	37	Yoshida, Fumihiko	ThBPoT10.1	46
	ThBPoT5.1	41	Yoshida, Hiroaki	FrFPoT1.17	107
Yassine, Inas	WeBPoT5.9	10	Yoshida, Hisashi	FrBPoT15.1	94
	ThGT5.3	74		FrFPoT1.23	107
	SaBPoT2.4	135		FrFPoT2.10	108
Yasuda, Shotaro	ThFPoT10.1	65		SaBPoT1.35	134
	SaBPoT4.10	138	Yoshida, Kenji	FrFPoT2.37	110
Yasumatsu, Kiyotaka	FrBPoT8.4	91	Yoshida, Masaki	ThGT2.1	73
Yasutake, Masaki	FrFPoT4.13	112		ThGT21.4	78
	SaBPoT1.17	133		FrFPoT4.25	113
Yasutomi, Keita	FrFPoT9.11	119	Yoshida, Shigeto	WeBPoT6.19	12
Ye Lin, Yiyao	SaBPoT3.28	137		ThBPoT5.13	42
Ye, Chenfei	ThBPoT5.27	43		FrAT19.4	84
Ye, Hesong	ThAT9.4	35	Yoshida, Takeshi	ThET20.6	60
Ye, Kanghyun	SaBPoT5.32	140	Yoshida, Takumi	FrFPoT8.19	118
Ye, Lin	ThBPoT6.10	44	Yoshida, Yuto	FrBPoT4.10	89
Yeager, Keith	ThBPoT17.4	50	Yoshikawa, Masahiro	ThAT9.5	35
Yeh, Chih-Kuang	FrFPoT1.19	107	Yoshikawa, Naoya	ThBPoT14.13	49
	FrFPoT3.25	111	Yoshimoto, Masahiko	WeBPoT1.11	8
	SaBPoT7.15	144		WeBPoT18.3	17
Yekeh Yazdandoost, Kamy	ThET20.3	60		ThET20.4	60
Yen, Sheng-che	ThET10.2	57		FrBPoT3.1	87
Yen, Shih-Cheng	ThBPoT6.13	44	Yoshimoto, Shunsuke	ThBPoT7.7	45
Yen, Zui-Shen	ThFPoT19.3	71		ThFPoT7.6	63
Yeo, Chaebeom	WeAT1.2	1	Yoshimura, Natsue	SaBPoT5.12	140
	FrBPoT4.14	89	Yoshioka, Yasuto	SaBPoT1.35	134
Yeung, Arnold	FrET10.2	103	Yoshiyasu, Yusuke	ThAT8.4	35
	FrFPoT4.18	112	Yoshizawa, Makoto	ThFPoT3.4	61
	SaBPoT8.20	145		FrET1.2	100
Yi, Weibo	ThGT3.6	74	Yoshizawa, Shin	FrBPoT5.1	90
Yi, WonJin	ThET2.5	55	You, Jane	ThFPoT6.2	63
Yilmaz, Atila	ThFPoT15.11	69	You, Yi-Sin	FrBPoT14.6	94
	SaBPoT5.38	141	Youn, Inchan	WeBPoT14.6	15
Yin, Fengshou	WeCT8.3	23		ThAT11.2	36
	ThGT7.6	75	Youn, Jongin	FrFPoT5.16	114
Yin, Jie	ThGT21.6	78	Young, Alex	FrBPoT3.9	87
Yin, Tao	FrFPoT4.36	113	Young, Alistair	WeBPoT5.8	10
	SaBPoT2.5	135	Young, David	ThGT2.4	73
Yokoi, Hiroshi	ThAT9.4	35	Young, Leanne	FrBPoT13.6	93
	ThFPoT15.2	69		FrET3.4	101
	ThFPoT15.9	69	Youngjin, Na	ThBPoT14.11	49
Yokosawa, Koichi	FrBPoT14.7	94	Yousaf, Adnan	ThBPoT7.9	45
	FrBPoT14.8	94	Yousefi, Ali	SaAT3.3	127
	SaBPoT1.16	133	Yousefi, Mahdi	WeAT21.2	7
Yokota, Tomoyuki	ThBPoT7.4	44	Youssef Ali Amer, Ahmed	SaBPoT1.20	134
	SaBPoT4.24	139	Youssef, Ali	FrFPoT5.6	114
Yokota, Yusuke	FrBPoT15.2	94	Yow, Ai Ping	WeCT8.3	23
Yokouchi, Hisatake	WeET7.3	28		ThBPoT5.25	43
	FrBPoT2.9	86		FrFPoT2.32	109
Yokoyama, Moe	FrFPoT6.21	117	Ysehak Abay, Tomas	WeBPoT8.9	13
Yoneya, Makoto	FrFPoT1.18	107		FrBPoT7.5	91
Yoneyama, Takeshi	FrBPoT8.7	91	Yu, Amy Zhao	FrBPoT20.1	96
Yonezawa, Teru	ThBPoT18.5	50	Yu, Bo	ThFPoT12.26	67
	ThFPoT15.8	69	Yu, Chang-Ho	SaBPoT5.4	139
Yong, Keir	FrBPoT13.5	93		SaBPoT5.20	140
Yoo, Byeongwook	FrFPoT5.23	115	Yu, Dongdong	ThBPoT4.4	41
	FrFPoT6.4	116	Yu, Gene	ThET11.5	58
Yoo, Hoi-Jun	WeBPoT21.7	18		ThFPoT13.9	68
	WeCT13.6	24	Yu, Guoqiang	SaAT21.4	133
Yoo, Jerald	WeCT20.5	26	Yu, Hong Qing	WeBPoT25.7	20
Yoo, Minsu	SaBPoT6.3	141	Yu, Juanhong	SaAT15.6	131

Yu, Lequan	SaAT7.6	129	Zhai, Yan	ThBPoT18.10	50
Yu, Pak-Lam	ThAT20.4	38	Zhan, Shu	ThBPoT5.28	43
Yu, Ruoxi	ThFPoT7.1	63	Zhang, Aili	WeBPoT22.6	19
Yu, Sung-Nien	WeBPoT2.6	8	Zhang, Bin	FrBPoT23.5	97
Yu, Wei	ThAT7.6	34		FrGT9.6	123
Yu, Xiangdong	ThFPoT5.1	62	Zhang, Bo	ThBPoT18.3	50
Yu, Xinchu	ThFPoT4.2	62	Zhang, Chaoyang	ThET9.6	57
Yu, Yang	WeBPoT8.5	12	Zhang, Cheng	ThET10.4	57
	ThGT21.5	78		ThFPoT12.12	66
Yu, Yih-Choung	ThBPoT10.5	46		ThFPoT12.28	67
Yuan, Kebin	ThET8.5	57		FrAT16.6	83
Yuan, Yixuan	FrBPoT6.1	90	Zhang, Di	ThBPoT6.3	44
Yuze, Mehmet	WeBPoT9.6	13		FrET2.6	100
	ThGT20.1	78	Zhang, Dingguo	WeBPoT16.7	16
	FrAT9.4	82		ThFPoT12.26	67
Yuda, Soh	FrFPoT5.14	114		FrET18.1	105
Yuen, Matthew M.F.	WeBPoT24.1	19		FrET18.3	105
	WeBPoT24.2	19	Zhang, Fan	WeBPoT16.3	16
	FrFPoT5.32	115	Zhang, Feng	FrFPoT5.1	114
Yuhara, Ryosuke	FrBPoT15.9	95	Zhang, Guanghao	ThET10.4	57
Yun, Sehyo	FrFPoT2.23	109		ThFPoT12.12	66
Yuste, Rafael	FrGT8.2	122		ThFPoT12.28	67
Yuting, Yuan	ThBPoT13.15	48		FrAT16.6	83
Yuwono, Mitchell	FrBPoT2.5	86	Zhang, Haihong	WeAT18.4	6
	FrET17.4	105		WeBPoT8.7	12
				SaAT15.6	131
			Zhang, Haiyin	ThGT19.5	78
			Zhang, Hanming	FrAT6.1	80
			Zhang, Henggui	ThFPoT10.4	65
			Zhang, Hong	WeAT2.6	1
			Zhang, Hui	ThFPoT11.3	65
			Zhang, Jinhua	ThFPoT12.9	66
			Zhang, Jinwei	FrFPoT9.36	120
			Zhang, Jonathon	FrET19.4	105
			Zhang, Jun-Mei	WeBPoT5.12	10
				FrBPoT11.5	92
			Zhang, Kangwei	WeBPoT22.6	19
			Zhang, Liang	FrAT5.4	80
			Zhang, Lifan	FrBPoT20.9	96
			Zhang, Lin	FrBPoT18.4	95
			Zhang, Lu	ThGT3.6	74
			Zhang, Min	ThFPoT6.9	63
			Zhang, Ming	WeCT8.6	23
			Zhang, NanXin	ThBPoT13.7	48
			Zhang, Peng	WeBPoT3.4	9
			Zhang, Qiaosheng	ThAT17.4	37
			Zhang, Qing	ThFPoT22.7	72
				ThGT21.1	C
				ThGT21.6	78
			Zhang, Ruikai	ThFPoT7.1	63
			Zhang, Shaomin	ThAT17.4	37
			Zhang, Shunqi	SaBPoT2.5	135
			Zhang, Song	ThBPoT6.12	44
			Zhang, Xi	ThBPoT7.6	45
				FrFPoT6.17	117
			Zhang, Xiang	FrAT2.5	79
				FrET15.5	104
			Zhang, Xin	ThFPoT12.9	66
			Zhang, Xinran	ThFPoT3.2	61
				ThFPoT3.6	61
				ThAT4.4	33
			Zhang, Xinyu	ThBPoT12.5	47
			Zhang, Xiufeng	SaBPoT8.18	144
			Zhang, Yang	WeBPoT4.5	9
			Zhang, Yingchun	WeBPoT4.6	9
				WeAT18.5	6
			Zhang, Yuan-Ting	FrBPoT1.15	85
				ThBPoT9.9	46
			Zhang, Zhang	WeET18.2	31
			Zhang, Zhe	WeBPoT2.7	8
			Zhang, Zhifei	WeBPoT3.10	9
			Zhang, Zhiguo	WeCT4.2	21
				ThAT18.3	37
				ThAT18.5	37
			Zhang, Zhongwei	ThBPoT9.9	46
			Zhang, Zhuo	WeCT8.3	23
				ThGT7.6	75
				SaAT15.6	131
			Zhang, Zisheng	FrAT11.3	82
				FrBPoT13.1	93
			Zhang, Zongfeng	ThGT19.5	78

Z

Zabulis, Xenophon	FrAT7.3	81
Zachs, Daniel	FrFPoT1.22	107
Zago, Matteo	SaBPoT5.3	139
Zago, Myrka	ThDT6.1	53
Zahedi, Saeed	SaBPoT5.34	140
Zaher, Ali	FrET9.5	103
Zahradka, Nicole	FrAT2.2	79
Zahrán, Gehad	ThFPoT4.3	62
Zaitcev, Aleksandr	WeCT17.5	25
Zajdel, Tom	FrGT8.4	122
Zamani Pedram, Maysam	ThET16.4	58
Zamani, Majid	WeCT5.1	22
	WeCT5.4	22
Zamboni, Paolo	ThDT6.3	53
	SaAT2.4	127
Zambrano Abad, Julio César	ThBPoT21.2	51
Zambri, Brian	ThAT18.6	38
Zamith, Manuel	ThBPoT6.11	44
Zanderigo, Francesca	WeET19.2	32
Zanon, Mattia	ThFPoT2.3	60
Zapata Impata, Brayán Stiven	WeAT9.5	3
Zapf, Marc Patrick Hans	WeCT10.1	23
Zapp, Daniel	ThFPoT17.14	70
Zarzoso, Vicente	WeAT5.1	C
	WeAT5.2	2
	FrET4.1	CC
	FrET4.2	101
Zdunowski, Sharon	WeBPoT16.2	16
Zecca, Massimiliano	FrET2.6	100
Zeemering, Stef	FrAT8.4	81
	FrGT18.3	125
Zehra, Syeda Sabeeka	FrFPoT4.42	113
Zeinullin, Maralbek	ThAT9.6	35
Zeitoune, Gabriel	SaBPoT1.18	134
Zema, Maddalena	WeBPoT23.4	19
	WeBPoT25.4	20
Zenati, Marco	WeAT9.6	3
Zeng, Hao	SaBPoT5.35	141
Zennifa, Fadilla	FrBPoT13.9	93
Zentzis, Noah	ThGT21.2	78
Zenzeri, Jacopo	WeCT1.1	20
	WeCT1.1	C
	ThBPoT14.6	48
Zequera Diaz, Martha Lucia	ThET13.1	C
	SaDT14.1	CC
	SaDT14.2	147
	SaDT14.3	147
Zervakis, Michalis	ThFPoT9.11	65
	FrBPoT10.2	92
	FrGT4.5	121
Zgaren, Mohamed	FrET9.4	103
Zha, Juan	ThBPoT5.6	42

Zhao, Chen	ThFPoT10.2	65	Zhu, Xiangyang	WeBPoT16.7	16
Zhao, Di	FrDT5.4	98		FrET18.1	105
Zhao, Jieling	SaDT9.3	146		FrET18.3	105
Zhao, Jingbo	FrBPoT15.6	94	Zhu, Xin	WeBPoT2.4	8
Zhao, Jun	FrAT6.5	81	Zhu, Yajing	ThGT19.5	78
	FrBPoT6.5	90	Zhu, Yongwei	WeBPoT8.7	12
	FrET6.6	102	Zhumkhawala, Ali	ThAT15.3	36
Zhao, Linna	FrAT19.6	84	Zielinski, Tomasz	WeBPoT6.7	11
Zhao, Qibin	ThFPoT9.13	65	Zielske, Iris	ThFPoT21.2	72
Zhao, Rui	ThBPoT2.27	40	Zigel, Yaniv	FrBPoT1.17	85
Zhao, Shiqing	WeBPoT22.6	19		FrBPoT6.9	91
Zhao, Weichao	ThFPoT11.7	66		FrGT17.1	CC
Zhao, Xiaodan	WeAT15.3	5		FrGT17.5	125
	WeBPoT5.12	10	Zihajehzadeh, Shaghayegh	WeBPoT1.9	8
	FrBPoT11.4	92		WeBPoT7.6	12
	FrBPoT11.5	92		ThBPoT6.9	44
Zhao, Xin	ThGT3.6	74	Zilla, Peter	SaDT11.5	146
Zhao, Zhe-Yi	ThBPoT5.6	42	Zimmermann, Heiko	FrFPoT3.26	111
Zheng, Bin	FrBPoT6.9	91	Zimmermann, Ulf	ThBPoT16.6	49
Zheng, Chaojie	WeET19.5	32	Zimpfer, Daniel	SaDT7.3	146
Zheng, Hairong	ThET6.6	56	Zink, Rob	WeCT17.6	25
	FrAT20.6	84	Zinter, Joseph	FrFPoT9.4	118
	FrGT7.3	122	Zintus-art, Kalanyu	SaBPoT5.12	140
Zheng, Jolene	SaDT8.3	146	Zipp, Frauke	ThFPoT5.13	63
Zheng, Nanning	ThFPoT6.2	63	Zitnik, Marinka	ThDT11.2	54
Zheng, Wenfeng	ThFPoT17.7	70	Zito, Giuseppe Angelo	ThAT11.5	36
Zheng, Xiaoxiang	ThAT17.4	37	Zivanovic, Miroslav	FrET18.4	105
Zheng, Yali	ThFPoT7.1	63	Zobel, Pierluigi Beomonte	ThBPoT22.6	51
Zheng, Ying	FrFPoT9.4	118	Zoetmulder, Marielle	FrBPoT1.23	85
Zheng, Yue	ThBPoT12.5	47	Zolfaghari, Nika	ThBPoT14.15	49
Zhiyuan, Shen	FrBPoT5.9	90	Zolliker, Daniel	FrFPoT1.13	107
Zhong, Hua	ThAT19.1	38	Zollo, Loredana	ThFPoT15.12	69
Zhong, Liang	WeAT15.3	5		FrBPoT16.5	95
	WeBPoT5.12	10	Zong, Chengzhi	FrBPoT12.4	93
	FrBPoT11.4	92		SaAT17.1	131
	FrBPoT11.5	92	Zordan, Stefano	FrDT10.2	99
Zhou, Alyssa	FrGT8.4	122	Zörgiebel, Felix	FrBPoT8.6	91
Zhou, Dafang	ThFPoT10.2	65	Zorowitz, Sam	SaAT3.2	127
Zhou, David Wei	FrET17.6	105	Zorzi, Cristina	FrDT1.5	98
Zhou, Hang	WeAT6.5	2	Zou, Jincheng	WeBPoT22.6	19
Zhou, Hui	ThBPoT12.5	47	Zou, Ling	ThBPoT7.6	45
	ThBPoT13.7	48	Zou, Yingchang	ThBPoT7.6	45
Zhou, Jiayin	WeBPoT5.12	10		FrFPoT6.17	117
	WeBPoT5.13	10	Zouridakis, George	FrET3.1	101
	ThBPoT23.5	51		FrET3.1	C
Zhou, Jie	WeET6.5	28		FrET3.2	101
Zhou, Peng	WeBPoT17.2	17		FrGT4.1	CC
	ThGT3.6	74		FrGT4.5	121
Zhou, Shengli	WeAT11.2	4	Zsido, Rachel	SaAT3.2	127
Zhou, Tao	ThET7.6	56	Zubiolo, Alexis	FrGT6.1	CC
Zhou, Xiaoqing	SaBPoT2.5	135		FrGT6.3	122
Zhou, Xingshe	ThFPoT11.7	66	Zucca, Claudio	WeCT4.6	22
Zhou, Yuxuan	WeCT11.3	24	Zucca, Stefano	WeBPoT9.3	13
Zhu, Fengping	WeBPoT13.8	15	Zucca, Susanna	WeBPoT11.5	14
Zhu, Jiachen	ThFPoT10.2	65	Zunino, Paolo	WeET1.5	26
Zhu, Kaihua	ThBPoT13.1	47	Zupan, Blaz	ThDT11.2	54
Zhu, Qingyong	FrGT7.5	122	Zverev, Mihail	FrBPoT23.4	97
Zhu, Shilin	ThAT4.4	33	Zwarts, Machiel	FrFPoT4.41	113
Zhu, Tingting	FrBPoT3.7	87	Zyout, Imad	WeAT5.3	2
Zhu, Wanzheng	WeBPoT5.13	10			



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Friday 28th August, 12:45, Amber 4

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LEVEL +3 - South Wing

- PANORAMA LOUNGE
Lunch with the Leaders

LEVEL MEZZANINE - South Wing

- SUITE ROOMS from 05 to 09
Parallel Sessions

LEVEL +2 - South Wing

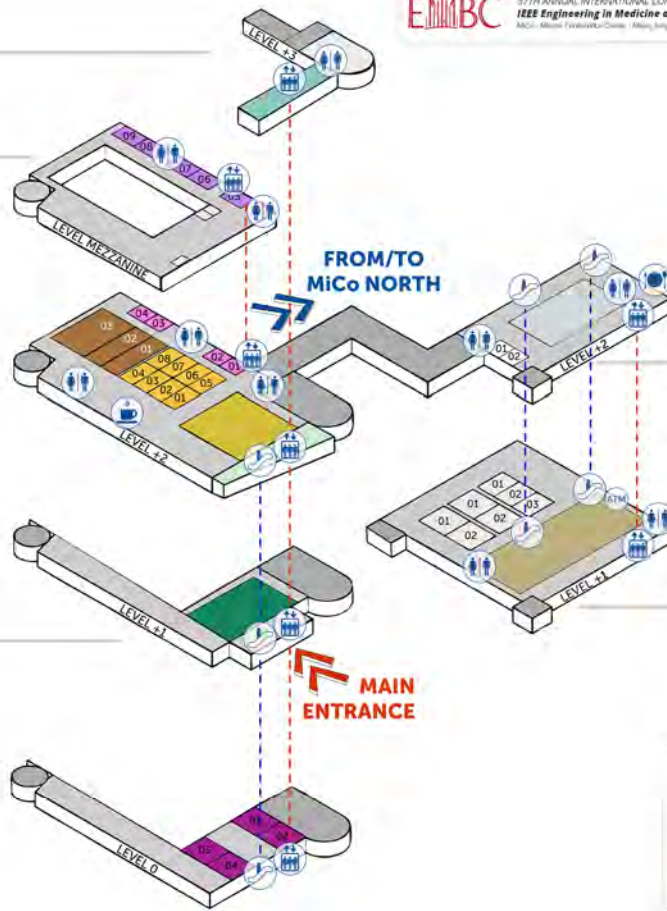
- GOLD ROOM
*Poster & Exhibition area
Coffee break*
- AMBER ROOMS from 01 to 08
Parallel Sessions
- BROWN ROOMS from 01 to 03
Parallel Sessions
- SUITE ROOMS from 01 to 04
Slide Centre - Suite room 01
- GOLD VIEW LOUNGE

LEVEL +1 - South Wing

- REGISTRATION

LEVEL 0 - South Wing

- SPACE ROOMS from 01 to 04
Parallel & Keynote Sessions



LEVEL +2 - North Wing

- SILVER PLENARY
Keynote Sessions
- WHITE ROOMS 01 and 02

LEVEL +1 - North Wing

- HALL B
*Welcome Reception
Wednesday evening*

LEGEND:

- LIFT (red dashed arrow with icon)
- ESCALATOR (blue dashed arrow with icon)



- CONFERENCE & EXHIBITION (blue icon)
- UNDERGROUND STOP (M icon)
- TAXI STOP (yellow icon)
- UNDERGROUND PARKING - 231 lots
10 € for first 4 hours
15 € per day (P icon)



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August 16 - 20, 2016