

# PERSONAL INFORMATION



# Viviana Patti

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WORK EXPERIENCE

# 2018-Present

# Associate Professor

Dipartimento di Informatica - Università degli Studi di Torino, Torino (Italy)

#### Previous employment and visiting periods

2005–2017 Assistant Professor in Computer Science. Dipartimento di Informatica, Università degli Studi di Torino, Torino, Italy

October 2015 - January 2016: 3-months fellowship co-funded by UniTO and CRT (Word Wide Style 2 Project) for research visit at the Universitat Politècnica de València (Spain), Pattern Recognition and Human Language Technology Research Center.

2014: Habilitation for Associate Professor in Computer Science (01/B1).

February 2006, Jan 2007, April 2008, Dec 2009: visiting researcher at the Institut für Verteilte Systeme-Fachgebiet Wissensbasierte Systeme (KBS) & L3S, University of Hannover, DE within the framework of EU NoE REWERSE.

October 2007: visiting researcher at the Department of Computer Science, North Carolina State University, Raleigh, USA

#### 2013-2017 Member of the Guarantee Committee (Comitato Unico di Garanzia, CUG) as Faculty Elected Representative

Università degli Studi di Torino, Torino (Italy)

# EDUCATION AND TRAINING

06/1996	Master's Degree in Philosophy Università degli Studi di Torino, Torino (Italy)	Degree summa cum laude
1997–2002	PhD in Computer Science Università degli Studi di Torino, Torino (Italy)	
2003–2004	Post-Doc fellow Dipartimento di Informatica - Università degli Studi di Torino, Torino (Italy)	
PERSONAL SKILLS		
Mother tongue(s)	Italian	



# Foreign language(s) English

Organisational / managerial skills

- Since 2019 -today: member of the board of directors of the Association for Italian Computational Linguistics (AILC).
  - Since 2014-today: Center for Logic, Language, and Cognition LLC: scientific board, executive committee and founding member.
  - Since October 2018-today: member of Giunta del Dipartimento di Informatica.
  - International Mobility Delegate for the Computer Science Department, University of Turin.
  - Member of the Public Engagement Lab, University of Turin, as a representative of the Computer Science Department.
  - Since 2020-today: Vice-coordinator of the Computer Science PhD program, Doctoral School of the University of Turin
  - Member of the PhD committee, Computer Science PhD program, Doctoral School of the University of Turin (XXXI, XXXII, XXV, XXVI cycles).
  - Supervision of 6 PhD theses and 2 post docs
    - 3 PhD students, Computer Science PhD program, Doctoral School of Sciences and Innovative Technologies, XIII ciclo (ongoing)
    - □ 3 PhD students in *co-tutelle with Paolo Rosso* (University Politecnica de Valencia):
      - Delia Irazú Hemández Farías (XXX cycle). She defended her thesis on "Irony and Sarcasm Detection, the Role of Affect" on Sep 25, 2017 with final evaluation Excellent and International mention.
      - Mirko Lai (XXX) cycle. He defended his thesis on "Language and Structure in Polarized Communities" on Feb 11, 2019 with final evaluation Excellent cum laude.
      - Simona Frenda (XXXIII ciclo); topic: "Sarcasm detection in hate speech in social media: a multilingual perspective". (ongoing)
      - Scientific responsible for 2 year, postdoc on *IhatePrejudice* project. (2018-2019); 6 months postdoc on *Studi* e ricerche su sistemi conversazionali intelligenti project (ongoing).
      - Supervision of the team of students and researchers obtaining the best results in the AMI@lbereval2018 shared task on Automatic Misogyny Identification on English and Spanish tweets.
      - Supervision of the team of students and researchers obtaining the a special mention at EVALITA 2018 for their participation to the AMI@Evalita2018 shared task on Automatic Misogyny Identification on English and Italian tweets (*special mention* for the *best discussion, critical insights, and error analysis*).
  - Co-founder and vice-president of the Associazione Culturale ArsMeteo which leads and supports the development of ArsMeteo, a portal for sharing artworks based on Web 2.0 technologies, which allows art tagging and tag-based browsing (<u>http://www.arsmeteo.org</u>, online since 2007, over 300.000 visitors; developed in collaboration with the web agency Easybit). In connection with this activity she is currently coordinating the development of the ArsEmotica framework (<u>http://di.unito.it/arsemotica</u>).
  - Since 2015 (foundation year) member of the Association for Italian Computational Linguistics (AILC)

### **Projects**

- Principal investigator of the project *M.EMO.RAI* with RAI Radiotelevisione Italiana, the national public broadcasting company of Italy, on measuring the emotional engagement of audiences of TV programs through social media (ongoing, funded in 2019, 1 year project). <a href="https://www.unito.it/comunicati\_stampa/memorai-lintelligenza-artificiale-che-monitora-le-emozioni-dei-telespettatori-sui">https://www.unito.it/comunicati\_stampa/memorai-lintelligenza-artificiale-che-monitora-le-emozioni-dei-telespettatori-sui</a>
- Principal investigator of the project Studi e ricerche su sistemi conversazionali intelligenti with TIM S.p.a, Italian telecommunications company, on the activity "Enhancement in Natural Language processing", task: Enhanced Sentiment Analysis & NLG" (ongoing, funded in 2019).
- Participant to the project *Be Positive!* (funded in 2020-22 under the "Google.org Impact Challenge on Safety" call - <u>https://impactchallenge.withgoogle.com/safety2019/charities/acmos-cifa</u>)
- Participant to the project STERHEOTYPES (funded in 2020-23 under the "Challenge for Europe"



call by Carlsberg Foundation, Volkswagen Stiftung and Compagnia San Paolo - <u>https://www.volkswagenstiftung.de/en/funding/our-funding-portfolio-at-a-glance/challenges-for-europe</u>).

- Participant to the ongoing project *Immigrants, Hate and Prejudice in Socia Media* (*IhatePrejudice*) (funded by Compagnia di San Paolo).<u>http://hatespeech.di.unito.it/ihateprejudice.html</u>
- Participant to the ongoing project Contro l'odio: tecnologie informatiche, percorsi formativi e storytelling partecipativo per combattere l'intolleranza, funded by the Italian Ministry of Work and Social Politics (Avviso n. 1/2017 for funding initiatives and projects of national relevance). Web platform: <u>http://controlodio.it/</u>
- Participant to the project Hate Speech & Social Media (2016-2018) (funded by Fondazione CRT<u>http://hatespeech.di.unito.it/crt.html</u>
- Principal investigator of the ongoing project Deep Content-centered Representation and Computation. Ricerca Locale UniTO. 2017-2019
- Coordinator of the working group on *Towards a geography of fertility in Italy based on Twitter* sentiment. Funded by Progetto ERC SWELL-FER (Funded under: FP7-IDEAS-ERC), PI L. Mencarini, Collegio Carlo Alberto (<u>https://swellfer.wordpress.com/</u>).
- Principal investigator of the project Ontology-based Affective Models to Organize and Access Artworks in the Social Semantic Web. MIUR - Giovani Ricercatori, 2014-2015.
- Participant to the project ICT4LAW: ICT Converging on Law: Next Generation Services for Citizens, Enterprises, Public Administration and Policymakers. Regione Piemonte, Converging technologies Project 2007. 2009-2013 (Member UniTO)
- Participant to the project *Capturing Semantics in Social Tagging Systems*. Programma Vigoni, Bando 2007-2008 funded by MIUR, Ateneo Italo-Tedesco e DAAD. 2007-2009. (Member Ateneo Italiano, UniTO)
- Participant to the project REWERSE: Reasoning on the Web with Rules and Semantics (EU NoE FP6, Information Society Technologies (IST), Priority 2 under the project reference number 506779). REWERSE addresses the IST strategic action line "Semantic-based knowledge systems". 2004-2008. (Member UniTO)

#### Job-related skills Teaching activities (courses)

- Emotion-oriented systems (PhD in Computer Science, UniTO).
- Linguaggi Formali e Traduttori Lab (T1/T4), Corso di Laurea in Informatica, UniTO.
- Ambienti di sviluppo e linguaggi per il web, Master in Progettazione e Management del Multimedia per la Comunicazione, Master Universitario di I livello, UniTO.
- Human Computer Interaction, Corso di Laurea in Informatica, UniTO.
- Programming II (Java) Corso di Laurea in Informatica, UniTO.
- Fondamenti di Informatica e Programmazione II, UniTO

# **Research Activities**

#### **Research Areas**

• *Main areas:* Natural language processing and Computational Linguistics; Sentiment analysis and stance detection in social media, with particular emphasis on political debates; Emotion recognition and figurative language processing in social media; Hate speech detection with particular emphasis on hate speech against immigrants, populist rhetoric, and automatic misogyny identification.

• **Secondary areas:** Affective computing; Knowledge representation (Formal Models of Agent Interactions)

### **Publications**

- +100 papers in peer-reviewed international conference and journal papers (see below for a non exhaustive list).
- Google Scholar : Citation 2491, indice h 27, indice i10: 62

#### Service

 Co-editor of a Special section of ACM Transactions on Internet Technology on Emotions in Conflictual Social Interactions, ACM. April 2020.<u>https://dl.acm.org/toc/toit/2020/20/2</u>



- Co-editor of a Special section of ACM Transactions on Internet Technology on Affect and Interaction in Agent-based Systems and Social Media, ACM. March 2017. <u>http://toit.acm.org/archive.cfm?id=3036639</u>
- Co-editor of a Special issue of the International Journal of Information Processing & Management, Elsevier on Emotion and Sentiment in Social and Expressive Media. January 2016 <u>http://www.sciencedirect.com/science/journal/03064573/52/1</u>
- Co-editor of a Special issue of Information on "Love & Hate in the Time of Social Media and Social Networks" (Guest editor): <u>https://www.mdpi.com/2078-2489/9/8/185</u>. 2018.
- Editorial board of the IOS International journal Intelligenza Artificiale (editorial board:) <u>http://www.iospress.nl/journal/intelligenza-artificiale/</u>
- Editorial board/direttivo of Sistemi Intelligenti journal (editorial board/direttivo) <u>https://www.mulino.it/riviste/issn/1120-9550</u>
- Committee member of major international conferences on Artificial intelligence, NLP, Affective Computing (IJCAI, ACL, AAAI, EMNLP-IJCNLP, NAACL-HTL, LREC, ACII). Invited reviewer for prestigious international journals (Computational Linguistics, ACM TOIT, ACM TWEB, IEEE Transactions on Affective Computing; IEEE Transactions on Knowledge and Data Engineering).
- CLIC-IT 2017: Fourth Italian Conference on Computational Linguistics. Area chair for the track: Pragmatics and Creativity: <u>http://sag.art.uniroma2.it/clic2017/it/organizzazione/</u>
- Organization of evaluation campaigns and shared tasks for different languages
  - co-Chair of the evaluation campaign Evalita2018: Evaluation of NLP and Speech tools for Italian
  - co-Chair of the evaluation campaign Evalita2016: Evaluation of NLP and Speech tools for Italian
    - Semeval2019-Task5: Organization of the shared task on Multilingual Detection of Hate Speech Against Immigrants and Women in Twitter at SemEval 2019
    - Semeval2018-Task2: Organization of the shared task on Multilingual Emoji Prediction. Affect and Creative Language in Tweets trackat SemEval 2018
    - co-organizer of the shared task Sentipolc: SENTIment POLarity Classification Task@Evalita 2014 and 2016: Italian shared task on sentiment classification at message level on Italian tweets; sub-tasks: subjectivity classification, polarity classification, irony detection.<u>http://di.unito.it/sentipolc14/</u>; <u>http://di.unito.it/sentipolc16/</u>
    - co-organizer of the shared task on Stance and Gender Detection in Tweets on Catalan Independence. Aim of the task: to detect the author's gender and stance with respect to the target "independence of Catalonia" in tweets written in Spanish and/or Catalanat IBEREVAL17<u>http://stel.ub.edu/Stance-IberEval2017/</u>
    - co-organizer of the shared task IronITA@Evalita 2018: Italian shared task on irony detection at message level on Italian tweets; sub-tasks: irony detection; different types of irony (with special focus on sarcasm identification).<u>http://di.unito.it/ironita18</u>
    - co-organizer of the shared task ITamoji@Evalita 2018. Italian shared task on emoji prediction on Italian tweets<u>https://sites.google.com/view/itamoji/home</u>
    - co-organizer of the shared task SardiStance@Evalita 2020. Italian shared task on stance detection on Italian tweets <u>https://di.unito.it/sardistance2020</u>
    - co-organizer of the shared task HaSpeeDe@Evalita2020. Italian shared task on hate speech detection on Italian tweetshttp://di.unito.it/haspeede20
- Co-founder of workshop series on sentiment and emotion analysis
  - Computational Modeling of People's Opinions, Personality, and Emotions in Social Media (PEOPLES): PEOPLES@COLING 2016: Computational Modeling of People's Opinions, Personality, and Emotions in Social Media. PEOPLES@NAACL 2018: co-located with NAACL HLT 2018 - New Orleans, Louisiana June, 2018. PEOPLES@COLING 2020 (Barcelona, Spain).<u>https://peopleswksh.github.io</u>
  - International Workshop Series on Emotion and Sentiment in Social and Expressive Media (ESSEM): ESSEM@AI\*IA 2013 (Turin), ESSEM@AAMAS 2015 (Istanbul), ESSEM@ACII 2017 (Texas, US), ESSEM@ACII 2019 (Cambridge, UK) <u>http://di.unito.it/essem19</u>
- Co-chair of several special tracks at international conferences on AI and Big Data:
  - □ Emotions@AISB 2018: Emotion Modeling and Detection in Social Media and Online Interaction. The symposium is part of the AISB 2018 Convention – 4th-6th April, 2018 – Liverpool,



UK:http://collab.di.uniba.it/aisbemotions/ (co-chair)

- Al4BigData@FLAIRS (2016, 2017, 2018, 2019, 2020):<u>http://www.di.unito.it/~patti/Al4BSDA18/Al4BigData18.htm</u>(Edition 2018, 2019, 2020 co-chair with Eric Bell, Pacific Northwest National Laboratory (USA) and Marco Viviani, Uni. Milano Bicocca (Italy).
- SentIsData@DSAA (2015, 2016), SeCredisData@DSAA2018: <u>http://www.ir.disco.unimib.it/secredisdata2018/</u>
- Selected publications:
- Complete list:
  - DBLP: http://dblp.uni-trier.de/pers/hd/p/Patti:Viviana
  - Google Scholar: https://scholar.google.it/citations?user=Th0j7coAAAAJ&hl=it
- Journals
  - M. Lai, A. T. Cignarella, D. I. Hernández Farías, C. Bosco, V. Patti, P. Rosso, <u>Multilingual Stance</u> <u>Detection in Social Media Political Debates</u>, Computer Speech & Language (2020).
  - M. Lai, M. Tambuscio, V. Patti, G. Ruffo, P. Rosso, <u>Stance polarity in political debates: A</u> <u>diachronic perspective of network homophily and conversations on Twitter</u>, Data & Knowledge Engineering (2019).
  - V. Basile, N. Novielli, D. Croce, F. Barbieri, M. Nissim and V. Patti, <u>Sentiment Polarity</u> <u>Classification at EVALITA: Lessons Learned and Open Challenges</u>, in IEEE Transactions on Affective Computing. (2019)
  - L. Mencarini, I. H. Farías & M. Lai & V. Patti & E. Sulis & D. Vignoli: <u>Happy parents' tweets: An exploration of Italian Twitter data using sentiment analysis</u>, Demographic Research, Max Planck Institute for Demographic Research, Rostock, Germany, vol. 40 (25), pages 693-724. (2019)
  - C. A. Iglesias, V. Patti: Editorial for the Special Issue on "Love & Hate in the Time of Social Media and Social Networks". Information 9(8): 185 (2018)
  - V. Patti, C. Bosco, R. Damiano: <u>Implicazioni etiche dell'analisi di contenuti, emozioni e interazioni nei social media</u>. Sistemi Intelligenti, a. XXIX, n. 3, dicembre 2017.
  - P. Basile, M. Nissim, V. Patti, R., Sprugnoli, F. Cutugno: <u>EVALITA Goes Social: Tasks, Data, and</u> <u>Community at the 2016 Edition</u>. Italian Journal of Computational Linguistics (IJCOL), Volume 3 (1), pp. 93-127. June 2017
  - □ C. Clavel, R. Damiano, V. Patti, P. Rosso: <u>Affect and Interaction in Agent-Based Systems and</u> <u>Social Media: Guest Editors' Introduction</u>. ACM Trans. Internet Techn. 17(1): 1:1-1:8 (2017)
  - E. Sulis, D. I. Hernández Farías, P. Rosso, V. Patti, G. Ruffo: <u>Figurative messages and affect in</u> <u>Twitter: Differences between #irony, #sarcasm and #not</u>.Knowl.-Based Syst. 108: 132-143. 2016.
  - □ D. I. Hemández Farías, V. Patti, P. Rosso: <u>Irony Detection in Twitter: The Role of Affective</u> <u>Content</u>. ACM Trans. Internet Techn. 16(3): 19. 2016
  - □ P. Rosso, C. Bosco, R. Damiano, V. Patti, E. Cambria: <u>Emotion and sentiment in social and</u> <u>expressive media: Introduction to the special issue.</u>Inf. Process. Manage. 52(1): 1-4 (2016)
  - □ F. Bertola, V. Patti: <u>Ontology-based affective models to organize artworks in the social semantic</u> web. Inf. Process. Manage. 52(1): 139-162. 2016.
  - G. Attardi, V. Basile, C. Bosco, T. Caselli, F. Dell'Orletta, S. Montemagni, V. Patti, M. Simi, R. Sprugnoli. <u>State of the Art Language Technologies for Italian: The EVALITA 2014</u> <u>Perspective</u>. Intelligenza Artificiale 9(1): 43-61. 2015.
  - M. Baldoni, C. Baroglio, E. Marengo, V. Patti, and F. Capuzzimati. <u>Engineering commitment-based business protocols with 2CL methodology</u>. *Journal of Autonomous Agents and Multi-Agent Systems*, 28(4):519-557, July 2014.
  - M. Baldoni, C. Baroglio, E. Marengo, and V. Patti. <u>Constitutive and Regulative Specifications of Commitment Protocols: a Decoupled Approach</u>. ACM Transactions on Intelligent Systems and Technology, Special Issue on Agent Communication, 4(2):22:1-22:25, March 2013.
  - C. Bosco, V. Patti, and A. Bolioli. <u>Developing Corpora for Sentiment Analysis: The Case of</u> <u>Irony and Senti-TUT</u>. *IEEE Intelligent Systems, Special issue on Knowledge-Based Approaches to Concept-Level Sentiment Analysis*, 28(2):55-63, 2013.
  - M. Baldoni, C. Baroglio, V. Patti, and P. Rena. <u>From Tags to Emotions: Ontology-driven</u> <u>Sentiment Analysis in the Social Semantic Web</u>. *Journal of Intelligenza Artificiale*, 6(1):41-54,



2012.

- M. Baldoni, C. Baroglio, I. Brunkhorst, N. Henze, E. Marengo, and V. Patti. <u>Constraint Modeling</u> for <u>Curriculum Planning and Validation</u>. *International Journal of Interactive Learning Environments*, 19(1):83-123, 2011.
- F. Abel, M. Baldoni, C. Baroglio, N. Henze, R. Kawase, D. Krause, and V. Patti. <u>Leveraging</u> <u>Search and Context Exploration by Exploiting Context in Folksonomy Systems</u>. New Review of Hypermedia and Multimedia, Special Issue on Hypertext and Web Science: Emergent Structures Communities and Collective Intelligence, 16(1-2):33-70, 2010.
- M. Baldoni, C. Baroglio, A. Martelli, and V. Patti. <u>Reasoning about interaction protocols for customizing web service selection and composition.</u> Journal of Logic and Algebraic Programming, special issue on Web Services and Formal Methods, 70(1):53-73, January 2007.
- M. Baldoni, C. Baroglio, A. Martelli, V. Patti, and C. Schifanella. <u>Reasoning on choreographies</u> and capability requirements. International Journal of Business Process Integration and Management, IJBPIM, 2(4):247-261,2007.
- G. Antoniou, M. Baldoni, C. Baroglio, R. Baungartner, F. Bry, T. Eiter, N. Henze, M. Herzog, W. May, V. Patti, S. Schaffert, R. Schidlauer, and H. Tompits. <u>Reasoning Methods for</u> <u>Personalization on the Semantic Web.</u> Annals of Mathematics, Computing & Teleinformatics (AMCT), 2(1):1-24, 2004.
- □ M.Baldoni, C.Baroglio, and V.Patti. <u>Web-based adaptive tutoring: an approach based on logic</u> <u>agents and reasoning about actions.</u> Artificial Intelligence Review, 22(1):3-39, 2004.
- M. Baldoni, L. Giordano, A. Martelli, and V. Patti. <u>Programming Rational Agents in a Modal Action Logic</u>. Annals of Mathematics and Artificial Intelligence, Special issue on Logic-Based Agent Implementation, 41(2-4):207-257, 2004.
- Conference proceedings, book chapters, etc. (selection):
  - E. W. Pamungkas, V. Basile, V. Patti: Do You Really Want to Hurt Me? Predicting Abusive Swearing in Social Media. In Proceedings of the 12th International Conference on Language Resources and Evaluation (LREC 2020). Marseille, France (2020)
  - E. W. Pamungkas, V. Patti: <u>Cross-domain and Cross-lingual Abusive Language Detection: A</u> <u>Hybrid Approach with Deep Learning and a Multilingual Lexicon</u>. In Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics: Student Research Workshop: 363-370 (2019).
  - G. Comandini, V. Patti. <u>An Impossible Dialogue! Nominal Utterances and Populist Rhetoric in an Italian Twitter Corpus of Hate Speech against Immigrants</u>. In Proceedings of the Third Workshop on Abusive Language Online at ACL 2019: 163–171(2019).
  - V.Basile, C. Bosco, E. Fersini, D. Nozza, V. Patti, F. Rangel, P. Rosso, M. Sanguinetti: <u>SemEval</u> 2019 task 5: Multilingual detection of hate speech against immigrants and women in Twitter. In Proceedings of SemEval@NAALC 2019.
  - K. Florio, V. Basile, M. Lai, V. Patti: Leveraging Hate Speech Detection to Investigate Immigration-related Phenomena in Italy. ACII Workshops 2019.
  - □ S. Akhtar, V. Basile, V. Patti: A New Measure of Polarization in the Annotation of Hate Speech. Proc. of Al\*IA 2019: 588-603
  - A.T. E. Capozzi, M. Lai, V. Basile, C. Musto, M. Polignano, F. Poletto, M. Sanguinetti, C. Bosco, V. Patti, G. Ruffo, G. Semeraro, M. Stranisci: <u>Computational Linguistics Against Hate: Hate</u> <u>Speech Detection and Visualization on Social Media in the "Contro L'Odio" Project</u>. CLiC-it 2019.
  - F. Poletto, V. Basile, C. Bosco, V. Patti, M. Stranisci: Annotating Hate Speech: Three Schemes at Comparison. CLiC-it 2019.
  - S. Frenda, V. Patti: <u>Computational Models for Irony Detection in Three Spanish Variants</u>. IberLEF@SEPLN 2019: 297-309.
  - S. Frenda, N. Kando, V.a Patti and P. Rosso. <u>Stance or insults.</u> Proceedings of the Ninth International Workshop on Evaluating Information Access (EVIA 2019).
  - E. W. Pamungkas, A. T. Cignarella, V. Basile, V. Patti:Automatic Identification of Misogyny in English and Italian Tweets at EVALITA 2018 with a Multilingual Hate Lexicon. EVALITA@CLiC-it 2018
  - M. Sanguinetti, F. Poletto, C. Bosco, V. Patti, M. Stranisci. <u>An Italian Twitter Corpus of Hate</u> <u>Speech against Immigrants</u>. In Proceedings of the 11th International Conference on Language Resources and Evaluation (LREC 2018). Miyazaki, Japan.



- E. W. Pamungkas, A. T. Cignarella, V. Basile, V. Patti: <u>14-ExLab@UniTo for AMI at</u> <u>IberEval2018</u>: <u>Exploiting Lexical Knowledge for Detecting Misogyny in English and Spanish</u> <u>Tweets</u>. IberEval@SEPLN 2018: 234-241.
- E. Bassignana, V. Basile, V. Patti. <u>Hurtlex: A Multilingual Lexicon of Words to Hurt</u>. In Proceedings of the Fifth Italian Conference on Computational Linguistics (CLiC-It 2018).
- Arthur T. E. Capozzi, Viviana Patti, Giancarlo Ruffo, and Cristina Bosco. 2018. <u>A Data Viz</u> <u>Platform as a Support to Study, Analyze and Understand the Hate Speech Phenomenon.</u> In *Proceedings of the 2nd International Conference on Web Studies* (WS.2 2018), ACM, New York, NY, USA, 28-35.
- E. W. Pamungkas, V. Basile, V. Patti. <u>Stance Classification for Rumour Analysis in Twitter:</u> <u>Exploiting Affective Information and Conversation Structure</u>. 2nd Int. Workshop on Rumours and Deception in Social Media (RDSM@CIKM2018).
- F. Barbieri, J. Camacho-Collados, F. Ronzano, L. Espinosa Anke, M. Ballesteros, V. Basile, V. Patti, H. Saggion: SemEval 2018 Task 2: <u>Multilingual Emoji Prediction</u>. SemEval@NAACL-HLT 2018: 24-33
- D. I. Hemández Farías, V. Patti, P. Rosso. <u>ValenTO at SemEval-2018 Task 3: Exploring the Role of Affective Content for Detecting Irony in English Tweets</u>. SemEval@NAACL-HLT 2018: 643-648
- E. W. Pamungkas, V. Patti: <u>#NonDicevoSulSerio at SemEval-2018 Task 3: Exploiting Emojis</u> and Affective Content for Irony Detection in English Tweets. SemEval@NAACL-HLT 2018: 649-654
- □ A. T. Cignarella, Cristina Bosco, Viviana Patti, Mirko Lai: <u>Application and Analysis of a Multi-layered Scheme for Irony on the Italian Twitter Corpus TWITTIRÒ</u>. LREC 2018
- M. Lai, V. Patti, G. Ruffo, P. Rosso: <u>Stance Evolution and Twitter Interactions in an Italian Political Debate</u>. NLDB 2018: 15-27
- J. Karoui, F. Benamara, V. Moriceau, V. Patti, C. Bosco, N. Aussenac-Gilles: <u>Exploring the</u> <u>Impact of Pragmatic Phenomena on Irony Detection in Tweets: A Multilingual Corpus Study</u>. Proc. of EACL (1) 2017: 262-272ACL.
- M. Taulé, M. Antònia Martí, F. M. Rangel Pardo, P. Rosso, C. Bosco, V. Patti: <u>Overview of the Task on Stance and Gender Detection in Tweets on Catalan Independence</u>. Proc. Of. IberEval@SEPLN 2017. CEUR Workshop Proceedings 1881, CEUR-WS.org, pp. 157-177.
- M. Lai, M. Tambuscio, V. Patti, G. Ruffo and P. Rosso. <u>Extracting Graph Topological Information</u> and Users' Opinion. In Proc. of CLEF 2017. LNCS.
- Delia Irazú Hernández Farías, Cristina Bosco, Viviana Patti, Paolo Rosso: <u>Sentiment Polarity</u> <u>Classification of Figurative Language: Exploring the Role of Irony-Aware and Multifaceted Affect</u> <u>Features</u>. CICLing (2) 2017: 46-57
- C. Bosco, V. Patti, M. Bogetti, M. Conoscenti, G. Ruffo, R. Schifanella and M. Stranisci, <u>Tools and resources for detecting hate and prejudice against immigrants in social media.</u> In: Proc. of AISB 2017, Symposium on Social Interactions in Complex Intelligent Systems.
- M. Nissim and V. Patti, <u>Chapter 3 Semantic Aspects in Sentiment Analysis</u>, In Sentiment Analysis in Social Networks, edited by Federico Alberto Pozzi, Elisabetta Fersini, Enza Messina and Bing Liu, Morgan Kaufmann, Boston, 2017, pp 31-48.
- Khokhlova M., Patti V., Rosso P. <u>Distinguishing between Irony and Sarcasm in Social Media</u> <u>Texts: Linguistic Observations.</u> In: Post Proc. International FRUCT conference on Intelligence, Social Media and Web, ISMW FRUCT-2016, Saint-Petersburg, Russia, pp. 17-22.
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- J. Fernando Sánchez-Rada, Björn Schuller, Viviana Patti, Paul Buitelaar, Gabriela Vulcu, Felix Bulkhardt, Chloé Clavel, Michael Petychakis, Carlos A. Iglesias (2016). <u>Towards a Common</u> <u>Linked Data Model for Sentiment and Emotion Analysis</u>. In Proc. of LREC 2016 Workshop Emotion and Sentiment Analysis (ESA 2016), pages 48-54.
- Francesco Barbieri, Valerio Basile, Danilo Croce, Malvina Nissim, Nicole Novielli, Viviana



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- Emilio Sulis, Cristina Bosco, Viviana Patti, Mirko Lai, Delia Irazú Hernández Farías, Letizia Mencarini, Michele Mozzachiodi, Daniele Vignoli. <u>Subjective Well-Being and Social Media. A</u> <u>Semantically Annotated Twitter Corpus on Fertility and Parenthood.</u> Proc. of CLiC-it/EVALITA 2016.
- Mirko Lai, Cristina Bosco, Viviana Patti, Daniela Virone: <u>Debate on political reforms in Twitter: A hashtag-driven analysis of political polarization</u>.DSAA 2015: 1-9
- Viviana Patti, Federico Bertola, Antonio Lieto. <u>ArsEmotica for arsmeteo.org: Emotion-Driven</u> <u>Exploration of Online Art Collections.</u> FLAIRS Conference 2015: 288-29
- □ Cristina Bosco, Viviana Patti, Andrea Bolioli: <u>Developing Corpora for Sentiment Analysis: The</u> <u>Case of Irony and Senti-TUT (Extended Abstract)</u>. IJCAI 2015.
- □ D. I. Hernández Farías, E. Sulis, V. Patti, G. Ruffo, C. Bosco. <u>ValenTo: Sentiment Analysis of</u> <u>Figurative Language Tweets with Irony and Sarcasm</u>. SemEval@NAACL-HLT 2015: 694-698
- V. Basile, A. Bolioli, M. Nissim, V. Patti, and P. Rosso. 2014. <u>Overview of the Evalita 2014</u> <u>SENTIment POLarity Classification Task</u>. In Proc. of the 4th evaluation campaignof Natural Language Processing and Speech tools for Italian (EVALITA'14), Pisa, Italy, December 2014. Pisa University Press.
- C. Bosco, L. Allisio, V. Mussa, V. Patti, G. Ruffo, M. Sanguinetti, and E. Sulis. <u>Detecting</u> <u>Happiness in Italian Tweets: Towards an Evaluation Dataset for Sentiment Analysis in</u> <u>Felicittà.</u> In Proc. of the 4th International Workshop on Corpora for Research on Emotion Sentiment & Social Signals (ES3@LREC'14), pages 56-63, Reykjavik, Iceland, May 2014. ELRA.
- L. Allisio, V. Mussa, C. Bosco, V. Patti, and G. Ruffo. <u>Felicittà: Visualizing and Estimating</u> <u>Happiness in Italian Cities from Geotagged Tweets.</u> In Proc. of the *Int. Workshop on Emotion and Sentiment in Social and Expressive Media: approaches and perspectives from AI* (ESSEM@AI\*IA 2013), volume 1096, pages 95-106, Turin, Italy, December 2013. CEUR Workshop Proceedings.
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- □ E. Marengo, M. Baldoni, C. Baroglio, Amit K. Chopra, V. Patti, M. P. Singh: <u>Commitments with</u> regulations: reasoning about safety and control in REGULA. AAMAS 2011: 467-474.
- □ E. Acotto, M. Baldoni, C. Baroglio, V. Patti, F. Portis, G. Vaccarino:<u>ArsMeteo: artworks and tags</u> <u>floating over the planet art.</u> Hypertext 2009: 331-332, pages 331-332, Torino, Italy, ACM.
- M. Baldoni, C. Baroglio, A. K. Chopra, N. Desai, V. Patti, M. P. Singh: <u>Choice, interoperability</u>, and conformance in interaction protocols and service choreographies. AAMAS (2) 2009: 843-850 Proc. of AAMAS 2009, pages 843-850, Budapest, Hungary. IFAAMAS.
- M. Baldoni, C. Baroglio, A. Horvath, V. Patti, F. Portis, M. Avilia, and P. Grillo. <u>Folksonomies</u> <u>meet ontologies in ARSMETEO: from social descriptions of artifacts to emotional concepts</u>. In S. Borgo and L. Lesmo, editors, *Formal Ontologies Meet Industry*, pp. 132-143, Torino, Italy, 2008. IOS Press.



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	<u>http://valeriobasi</u>	le.github.io/			
WORK EXPERIENCE					
01/11/2019-Present	Assistant Professor Department of Computer Science - University of Turin, Turin (Italy)				
01/04/2018–31/10/2019	Post-doc Department of Computer Science - University of Turin, Turin (Italy)				
01/08/2017–28/02/2018	Post-doc Department of Computer Science - Sapienza Università di Roma, Roma (Italy)				
01/07/2015–31/07/2017	Post-doc Inria, Sophia Antipolis (France)				
01/03/2010–31/12/2010	Research Fellow CIRSFID Interdipartmental Centre for Research in the History, Philosophy, and Sociology of Law and in Computer Science and Law, Bologna (Italy)				
EDUCATION AND TRAINING					
2011–2015	PhD				
	University of Groni	ngen, Groningen (	Netherlands)		
	Computational Sema	antics			
2007–2010	Master's Degree				
	Alma Mater Studio	rum Università di I	Bologna, Bologna	(Italy)	
	Computer Science				
2003–2007	Bachelor's Degre	e			
	Alma Mater Studio	rum Università di I	Bologna, Bologna	(Italy)	
	Computer Science				
PERSONAL SKILLS					
Mother tongue(s)	Italian				
Foreign language(s)	UNDERS	TANDING	SPEA	KING	WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2



Spanish	B2	B2	B2	B2	B1
French	B1	B1	A2	A2	A2
Dutch	A1	A2	A1	A2	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user Common European Framework of Reference for Languages - Self-assessment grid

#### Organisational / managerial skills

Guest editor of international journals: Applied Ontology, Data & Knowledge Engineering Roles in international and national scientific events:

- Founder and chair of the Workshop on Contextual Representation of Objects and Events in Language (CREOL 2017, 2019)
- Organizer of the public symposium Lingua e Computer (2018)
- Chair of the Workshop on Natural Language Processing for Artificial Intelligence (NL4AI 2018-2019)
- Area chair for the Italian Conference on Computational Linguistics (CLiC-it 2017-2018).
- Local organization for the International Conference on Legal Knowledge and Information Systems (JURIX 2016).
- Publication chair for the Third Joint Conference on Lexical and Computational Semantics conference (\*SEM 2014).
- Local organization for the International conference on Applications of Natural Language Processing to Information Systems (NLDB 2012).

Participant to the projects

- Contro l'odio, funded by the Italian Ministry of Work and Social Politics
- IHatePrejudice, funded by Compagnia di San Paolo
- Hate Speech and Social Media, funded by Fondazione CRT
- MOUSSE, funded by ERC
- ALOOF, funded by CHIST-ERA

Supervision of 2 PhD theses and several bachelor's and master's theses in Computer Science and Language Studies.

#### Job-related skills **Teaching Activities:**

- Computer Programming (currently teaching at the bachelor's level)
- Databases (currently teaching at the bachelor's level)
- Knowledge Engineering (master's level)
- Deep Learning (master's level)
- Natural Language Generation (PhD course)

### **Research Activities**

- Chair of the evaluation campaign on NLP and Speech tools forItalian EVALITA 2020
- Organizer of the shared task Multilingual Detection of Hate Speech Against Immigrants and Women in Twitter at SemEval 2019
- Organizer of the shared task Multilingual Emoji Predictionat SemEval 2018
- Organizers of shared tasks at EVALITA: ABSITA 2018, IronITA 2018, SENTIPOLC 2014 and 2016.

#### **Publications**

Valerio Basile published more than 70 papers in conferences, workshops and journals. The following is a selection of relevant recent publications.

T. Caselli, V. Basile, J. Mitrović, I. Kartoziya and M. Granitzer (2020): I Feel Offended, Don't Be Abusive! Implicit/Explicit Messages in Offensive and Abusive Language. Proceedings of the



Language Resources and Evaluation Conference (LREC 2020)

- E. Pamungkas, V. Basile and V. Patti (2020): Do You Really Want to Hurt Me? Predicting Abusive Swearing in Social Media. Proceedings of the Language Resources and Evaluation Conference (LREC 2020)
- K. Florio, V. Basile, M. Lai, V. Patti (2019): Leveraging Hate Speech Detection to Investigate Immigration-related Phenomena in Italy. 4th Workshop on Emotion and Sentiment in Social and Expressive Media (ESSEM 2019)
- M. Polignano, P. Basile, M. de Gemmis, G. Semeraro and V. Basile (2019): AlBERTo: Italian BERT Language Understanding Model for NLP Challenging Tasks Based on Tweets. 6th Italian Conference on Computational Linguistics (CliC-it 2019)
- A. Capozzi, M. Lai, Valerio Basile, C. Musto, M. Polignano, F. Poletto, M. Sanguinetti, C. Bosco, V. Patti, G. Ruffo, G. Semeraro and M. Stranisci (2019): Computational Linguistics Against Hate: Hate Speech Detection and Visualization on Social Media in the "Contro L'Odio" Project. 6th Italian Conference on Computational Linguistics (CliC-it 2019)
- F. Poletto, V. Basile, C. Bosco, V. Patti and M. Stranisci (2019): Annotating Hate Speech: Three Schemes at Comparison. 6th Italian Conference on Computational Linguistics (CliC-it 2019)
- S. Akhtar, V. Basile, and V. Patti (2019): A New Measure of Polarization in the Annotation of Hate Speech. 18th International Conference of the Italian Association for Artificial Intelligence (AIIA 2019)
- V. Basile, N. Novielli, D. Croce, F. Barbieri, M. Nissim, V. Patti: Sentiment Polarity Classification at EVALITA: Lessons Learned and Open Challenges. Transactions on Affective Computing (2018)
- E. W. Pamungkas, A. T. Cignarella, V. Basile, V. Patti: Automatic Identification of Misogyny in English and Italian Tweets at EVALITA 2018 with a Multilingual Hate Lexicon. Proceedings of the Sixth Evaluation Campaign of Natural Language Processing and Speech Tools for Italian. Final Workshop (EVALITA 2018)
- V. Basile, M. Lai, Manuela Sanguinetti: Long-term Social Media Data Collection at the University of Turin. Proceedings of the Fifth Italian Conference on Computational Linguistics (CLiC-it 2018)
- E. Bassignana, V. Basile, V. Patti: Hurtlex: A Multilingual Lexicon of Words to Hurt. Proceedings of the Fifth Italian Conference on Computational Linguistics (CLiC-it 2018)
- V. Basile, E. Cabrio, F. Gandon, D. Nozza (2018): Mapping Natural Language Labels to Structured Web Resources. Proceedings of the 2nd Workshop on Natural Language for Artificial Intelligence (NL4AI 2018)
- E. W. Pamungkas, A. T. Cignarella, V. Basile, V. Patti: 14-ExLab@ UniTo for AMI at IberEval2018: Exploiting Lexical Knowledge for Detecting Misogyny in English and Spanish Tweets. Proceedings of the Third Workshop on Evaluation of Human Language Technologies for Iberian Languages (IberEval 2018)
- L. Asprino, V. Basile, V. Presutti: Empirical Analysis of Foundational Distinctions in the Web of Data . Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI-ECAI 2018)
- S. Jebbara, V. Basile, E. Cabrio, P. Cimiano: Extracting common sense knowledge via triple ranking using supervised and unsupervised distributional models. Semantic Web Journal (2017)
- J. Young, L. Kunze, V. Basile, E. Cabrio, N. Hawes, B. Caputo: Semantic Web-Mining and Deep Vision for Lifelong Object Discovery. Proceedings of the IEEE International Conference on Robotics and Automation (ICRA 2017)
- J. Bos, V. Basile, K. Evang, N. J Venhuizen, J. Bjerva: The Groningen Meaning Bank . Book chapter in "Handbook of Linguistic Annotation" (2017)
- P. Basile, V. Basile, M. Nissim, N. Novielli, V. Patti: Sentiment Analysis of Microblogging Data. Chapter in the Encyclopedia of Social Network Analysis and Mining (2017)
- J. Young, V. Basile, L. Kunze, E. Cabrio, N. Hawes. Towards Lifelong Object Learning by Integrating Situated Robot Perception and Semantic Web Mining. Proceedings of the European Conference on Artificial Intelligence (ECAI 2016)
- V. Basile, S. Jebbara, E. Cabrio, P. Cimiano: Populating a Knowledge Base with Object-Location Relations Using Distributional Semantics. Proceedings of the 20th International Conference on Knowledge Engineering and Knowledge Management (EKAW 2016)
- V. Basile : A Repository of Frame Instance Lexicalizations for Generation. Proceedings of the 2nd International Workshop on Natural Language Generation and the Semantic Web (WebNLG 2016)
- P. Basile, V. Basile, E. Cabrio, S. Villata: Argument Mining on Italian News Blogs. Proceedings of the Third Italian Conference on Computational Linguistics (CLiC-it 2016)



- V. Basile, E. Cabrio, S. Villata, C. Frasson, F. Gandon: A Pragma-Semantic Analysis of the Emotion/Sentiment Relation in Debates. Proceedings of the 4th International Workshop on Artificial Intelligence and Cognition (AIC 2016) at the Annual International Conference on Biologically Inspired Cognitive Architectures (BICA 2016)
- V. Basile, M. Nissim: Sentiment analysis on Italian tweets. Proceedings of the 4th Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis (WASSA 2013) at the Conference of the North American Chapter of the Association for Computational Linguistics (NAACL-HTL 2013)



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WORK EXPERIENCE	
01/10/2006-Present	Assistant Professor Dipartimento di Informatica - Università degli Studi di Torino, Torino (Italy)
EDUCATION AND TRAINING	
01/03/1995	Master's Degree in Philosophy Università degli Studi di Torino
01/03/2004	PhD in Computer Science Università degli Studi di Torino
01/09/2001–31/12/2001	Honorary Research Fellow Department of Phonetics ad Linguistics - University College London
01/12/2004–30/09/2006	Post-doc "Lagrange Fellow" (ISI Foundation) Faculty of Psychology - Università degli Study di Torino
01/12/2002–01/11/2004	Scholarship Dipartimento di Informatica - Università degli Studi di Torino
01/01/1997–31/12/1997	Master in Multimedia technology and communication COREP - Politecnico di Torino
PERSONAL SKILLS	
Mother tongue(s)	Italian
Foreign language(s)	English, French
Organisational / managerial skills	Principal investigator of the ongoing project Immigrants, Hate and Prejudice in Socia Media (funded by Compagnia di San Paolo, 77,000 €)
	<ul> <li>Participant to the ongoing project Contro l'odio: tecnologie informatiche, percorsi formativi e storytelling partecipativo per combattere l'intolleranza, funded by the Italian Ministry of Work and Social Politics (Avviso n. 1/2017 for funding initiatives and projects of national relevance)</li> </ul>
	Principal investigator of the project Hate Speech & Social Media (2016-2018) (funded by Fondazione CRT, 30,000 €)
	<ul> <li>Leader of the Work Package on Evaluation Models for Linguistic Resources within the project "Portal for the Access to Linguistic Resources for Italian" (PARLI) (2009-2012) (funded by the</li> </ul>



Italian Ministry of Research as Research Project of National Interest)

- Supervision of 3 PhD thesis, tutor for scholarships and post-docs and supervisor of more than 15 Master's degree thesis
- Founder member of the Association for Italian Computational Linguistics (AILC)
- Member of the scientific committee of the center for Logic Language and Cognition (LLC).
- Responsible for framework conventions between Università di Torino and other institutions involved in reserch about computational linguistics and in particular Fondazione Bruno Kessler of Trento, Department of Humanistic Studies of the University of the Western Piedmont, Department of Enterprise Engineering of the University of Rome Tor Vergata, Department of Computer Science of the University of Pisa, Istituto di Linguistica Computazionale "Antonio Zampolli" – CNR of Pisa

#### Job-related skills Teaching activities

*Teaching topics:* Computational linguistics, Machine translation, Data bases, Morphological and syntactic representation and processing of natural languages, Resources for natural language processing and sentiment analysis.

Current teaching responsibilities:

- Course in Informatics and multimedia communication for master's degree in Translation at Università degli Studi di Torino
- Course Emotion Oriented Systems for PhD in Computer Science
- Committee member of the Doctoral School in Digital Humanities of the consortium including Università di Genova and Università degli Studi di Torino
- Member of the committee for "Teaching Computer Science in Schools" of the Dipartimento di Informatica dell'Università degli Studi di Torino

#### **Research activities**

- Morphological and syntactic analysis of natural language in multilingual perspective in the context
  of the Universal Dependency project, development of the Turin University Treebank
  (www.di.unito.it/~tutreeb/)
- Sentiment analysis and in particular hate speech and irony detection with a special interest in development of annotated corpora
- Activity in evaluation campaigns for Natural Language Processing:
  - Organization of the task Multilingual Detection of Hate Speech Against Immigrants and Women in Twitter in SemEval 2019
  - Organization of the task Hate Speech Detection (HaSpeeDe) and Irony Detection in Italian Tweets (IronITA) in Evalita 2018
  - Organization of the task Stance and Gender Detection in Tweets on Catalan Independence in Ibereval 2017
  - Organization of the task Part of Speech Tagging of Social Media Texts
  - Participation to the task Sentiment Analysis of Figurative Language in Twitter in SemEval 2015
  - Main Chair of the evaluation campaign Evalita 2014 Evaluation of NLP and Speech tools for Italian
  - □ Organizer of the task **Parsing** in Evalita 2007, 2009, 2011 and 2014

# Chairing of events\_

- Special Session on Sentiment, Emotion, and Credibility of Information in Social Data (SeCredISData) della 5th IEEE International Conference on Data Science and Advanced Analytics (IEEE-DSAA 2018)

- Workshop Emotion and Sentiment in Social and Expressive Media: User Engagement and Interaction (ESSEM@ACII 2017)

- Special Session on Emotion and Sentiment in Intelligent Systems and Big Social Data Analysis (SentISData) della 3rd IEEE International Conference on Data Science and Advanced Analytics (IEEE-DSAA 2016)



- Second Italian Conference on Computational Linguistics (CLiC-it 2015)

- Workshop Emotion and Sentiment in Social and Expressive Media: opportunities and challenges for emotion-aware multi agent systems (ESSEM@AAMAS2015)

- Special Session on Emotion and Sentiment in Intelligent Systems and Big Social Data Analysis (SentISData) della 2nd IEEE International Conference on Data Science and Advanced Analytics (IEEE-DSAA 2015)

- Workshop Emotion and Sentiment in Social and Expressive Media: approaches and perspectives from AI (ESSEM@AI\*IA2013)

# **Publications**

Cristina Bosco published more than 90 papers in conferences, workshops and journals. The following is a selection of the main last years publication.

- C. Bosco, F. Dell'Orletta, F. Poletto, M. Sanguinetti, M. Tesconi (2018) Overview of the Evalita 2018
   Hate Speech Detection Task. Proceedings of Evalita 2018
- A. Capozzi, G. F. Ruffo, V. Patti, C. Bosco (2018) A Data Viz Platform as a Support to Study, Analyze and Understand the Hate Speech Phenomenon. Proceedings of Web Studies.2
- M. Sanguinetti, C. Bosco, A. Lavelli, A. Mazzei, F. Tamburini (2018) PoSTWITA-UD: an Italian Twitter Treebank in Universal Dependencies. Proceedings of the Language Resources and Evaluation Conference 2018
- M. Sanguinetti, F. Poletto, C. Bosco, V. Patti, M. Stranisci (2018) An Italian Twitter Corpus of Hate Speech against Immigrants. Proceedings of the Language Resources and Evaluation Conference 2018
- A.T. Cignarella, C. Bosco, V. Patti, M. Lai (2018) Application and Analysis of a Multi-layered Scheme for Irony on the Italian Twitter Corpus TWITTIRO'. Proceedings of the Language Resources and Evaluation Conference 2018
- V. Patti, R. Damiano, C. Bosco (2017) Ethical implications of analyzing opinions, emotions and interactions in social media. Proceedings of the Affective Computing and Intelligent Interaction Workshop
- C. Bosco, V. Patti, M. Bogetti, M. Conoscenti, G.F. Ruffo, R. Schifanella (2017) Tools and resources for detecting hate and prejudice against immigrants in social media. In Proceedings of the Symposium on Social Interaction in Complex Intelligent Systems (SICIS) at AISB.
- V. Patti, C. Bosco, R. Damiano (2017) Implicazioni etiche dell'analisi di contenuti, emozioni e interazioni nei social media. Sistemi intelligenti 29 (3), 579-600
- A.T. Cignarella, C. Bosco, V. Patti (2017) TWITTIRO: A social media corpus with a multi-layered annotation for irony. Proceedings of the 4th Italian Conference on Computational Linguistics
- C. Bosco, V. Patti (2017) Social media analysis for monitoring political sentiment. In Encyclopedia of Social Network Analysis and Mining, Springer
- F. Poletto, M. Stranisci, M. Sanguinetti, V. Patti, C. Bosco (2017) Hate speech annotation: Analysis of an Italian twitter corpus. Proceedings of the 4th Italian Conference on Computational Linguistics
- D.I. Hernandez Farías, I. Lagana', V. Patti, C. Bosco (2017) Towards an Italian lexicon for polarity classification (polarITA): A comparative analysis of lexical resources for sentiment analysis. Proceedings of the 4th Italian Conference on Computational Linguistics
- M. Sanguinetti, C. Bosco, A. Mazzei, A. Lavelli, F. Tamburini (2017) Annotating Italian social media texts in Universal Dependencies. Proceedings of the Fourth International Conference on Dependency Linguistics
- M. Taulé, M.A. Martí, F.M. Rangel, P. Rosso, C. Bosco, V. Patti (2017) Overview of the task on stance and gender detection in tweets on Catalan independence at IberEval 2017 2nd Workshop on Evaluation of Human Language Technologies for Iberian Languages
- J. Karoui, F. Benamara, V. Moriceau, V. Patti, C. Bosco, N. Aussenac-Gilles (2017) Exploring the impact of pragmatic phenomena on irony detection in tweets: A multilingual corpus study. Proceedings of the European Chapter of the ACL
- C. Bosco, M. Lai, V. Patti, F. Rangel, P. Rosso (2016) Tweeting in the Debate about Catalan Elections. Proceedings of the LREC workshop on Emotion and Sentiment Analysis Workshop
- C Bosco, M Lai, V Patti, D Virone (2016) Tweeting and Being Ironic in the Debate about a Political Reform: the French Annotated Corpus TWitter-MariagePourTous. Proceedings of the Language Resources and Evaluation Conference 2016



- D.I. Hernandez Farías, E. Sulis, V. Patti, G.F. Ruffo, C. Bosco (2015) Valento: Sentiment analysis of figurative language tweets with irony and sarcasm. Proceedings of the 9th International Workshop on Semantic Evaluation
- C. Bosco, V. Patti, A. Bolioli (2013) Developing corpora for sentiment analysis: The case of irony and Senti-TUT. IEEE Intelligent Systems 28 (2), 55-63