ACL 2018

The 56th Annual Meeting of the Association for Computational Linguistics

Proceedings of the Conference, Vol. 2 (Short Papers)

July 15 - 20, 2018
Melbourne, Australia

Diamond Sponsors:

Platinum Sponsors:

Gold Sponsors:

Silver Sponsors:

Bronze Sponsors:

Supporters:

Student Volunteers Sponsors:

©2018 The Association for Computational Linguistics

Order copies of this and other ACL proceedings from:

Association for Computational Linguistics (ACL)
209 N. Eighth Street
Stroudsburg, PA 18360
USA
Tel: +1-570-476-8006
Fax: +1-570-476-0860
acl@aclweb.org

ISBN 978-1-948087-34-6 (Volume 2)

Message from the General Chair

It is an honor to write the initial words of this proceedings as General Chair of the 56th Annual Meeting of the Association for Computational Linguistics! This is only the second time that an ACL conference has been held in Australia — the first time was for the joint COLING/ACL conference in June of 2006 in Sydney, and I was one of its Program Chairs. For ACL 2018 we have tried to maintain the welcoming and intimate spirit and the relaxed and genial character of the much smaller ACL conferences of the past in spite of the ever-growing number of researchers in the field and participants in our conferences.

It is my pleasure here to express gratitude to all those without whom this conference would not exist. My biggest thanks go to the Program Chairs Iryna Gurevych and Yusuke Miyao, as well as to Local Chairs Tim Baldwin, Trevor Cohn and Karin Verspoor. They have done a tremendous job to manage the submission and review process, and the local arrangement details, respectively.

I also want to thank all of the other chairs for their very hard work: Workshops Chairs Brendan O'Connor and Eva Maria Vecchi; Tutorials Chairs Yoav Artzi and Jacob Eisenstein; Demo Chairs Fei Liu and Thamar Solorio; Student Research Workshop Organizers Vered Shwartz, Jeniya Tabassum and Rob Voigt; Faculty Advisors to the Student Research Workshop Marie-Catherine de Marneffe, Wanxiang Che and Malvina Nissim; Publications Chairs Shay Cohen, Kevin Gimpel and Wei Lu; Exhibits Coordinator Karin Vespoor; Student Volunteer Coordinator Karin Vespoor; Conference Handbook Chairs Jey Han Lau and Trevor Cohn; Publicity Chair Sarvnaz Karimi; Local Sponsorship Chair Cecile Paris; Webmaster Andrew MacKinlay; and Priscilla Rasmussen, giver of advice and wisdom to all of us as ACL Business Manager.

I also warmly thank the ACL Executive Committee for its guidance and advice on many important issues and concerns as they arose.

I am also extremely grateful to all the sponsors for their great support to the conference.

Many thanks to the area chairs, the reviewers, the invited speakers, the authors of the various papers, posters and presentations.

And, finally, many many thanks to all the participants who will put the final touches on making ACL 2018 an exciting, stimulating and inspiring event!

Claire Cardie
ACL 2018 General Chair
July 2018

Message from the Program Committee Co-Chairs

Welcome to the 56th Annual Meeting of the Association for Computational Linguistics 2018 – or ACL 2018 for short.

In September 2017, Program Committee Co-Chairs (PCs) posted the call for nominations of Area Chairs (AC), Reviewers and Invited Speakers. We received 752 responses in total. Overall, out of 388 valid nominations for area chairs, 299 unique persons were suggested; 110 persons were self-nominations. About 70% of the 56 selected area chairs (later expanded to 61 area chairs due to the high number of submissions) were nominated by the community. For the reviewers, we collected 936 valid nominations. At the PhD level, 139 persons were self-nominations and 129 were nominated by others. At the Postdoc/Ass.Prof. level, 160 were self-nominated, 112 nominated by others. At the Prof. level, 221 persons were self-nominated, 175 nominated by others.

We received 138 unique nominations for invited speakers, from which two invited speakers of the conference were selected:

- Carolyn Penstein Rosé, Language Technologies Institute at Carnegie Mellon University, USA
- Anton van den Hengel, Australian Centre for Visual Technologies at University of Adelaide, Australia

Our community is steadily growing: in total, 1621 submissions were received right after the submission deadline: 1045 long, 576 short papers. 13 erroneous submissions were deleted or withdrawn in the preliminary checks by PCs. 25 papers were rejected without review (16 long, 9 short); the reasons are the violation of the ACL 2018 style and dual submission guidelines. 32 papers were withdrawn before the review period started; the main reason was that the papers have been accepted as the short papers at NAACL HLT 2018. In total, 1551 papers went into the reviewing phase: 1021 long, 530 short papers. 1610 reviewers (1473 primary and 137 secondary reviewers) were involved in the reviewing process; each reviewer has reviewed about 3 papers on average. 3 long and 4 short papers were withdrawn during the reviewing period, and finally 1018 long and 526 short papers were considered during the acceptance decision phase.

The assignment of papers to areas and reviewers has been done in multiple rounds. First round: Initial assignments of papers to areas were determined automatically with the help of the authors' input, while PCs went through all submissions and moved papers to other areas, considering COI and the topical fit. PCs assigned one AC as a meta-reviewer to each paper using Toronto Paper Matching System (TPMS) scores. Second round: ACs looked into the papers in their area, and adjusted meta-reviewer assignments. ACs sent a report to PCs if they found any problems. Third round: PCs made the final decision, considering the workload balance, possible COIs and the topical fit. Fourth round: ACs decided which reviewers would review each paper, based on AC's knowledge about the reviewers, TPMS scores, reviewers' bids, and COI.

We have introduced several innovations to the reviewing process. One of them is an argument-based review form. The reviewers were asked to provide arguments for and against the paper. This has been tremendously helpful for ACs and PCs to analyze the reviews and come up with final recommendations. The authors were asked to respond to the con arguments during the rebuttal. In coordination with the NAACL HLT 2018 PCs, we plan to do some analytics on anonymized reviews and rebuttal statements, with the consent of the reviewers and authors. Our purpose is to improve the quality of the review process. The data will be compiled into a unique corpus for NLP, and will be made available to the research community after appropriate anonymization checks, at the earliest in 2 years after ACL 2018.

We hope to provide data on *how to review* to younger researchers, and to improve the transparency of the reviewing process in general.

The ACL 2018 conference is super-competitive: We accepted 256 out of 1018 submitted long papers and 125 out of 526 short papers, with an overall acceptance rate of 24.7%. The details of the review process are available at the conference homepage. Criteria of acceptance were mainly:

- strengths/weaknesses raised by reviewers and their significance;
- the result of discussions and author responses;
- contribution to CL as the science of language: whether the paper advances (or contributes to) our understanding of language in any way;
- diversity: we do not want to fill ACL with similar papers like achieving 1% improvement on a well-known task.

We also considered the balance of paper types, topics and contributions and re-considered the acceptance when reviewers reported any problem in preliminary checks (*Appropriateness* to *Handling of Human Participants*).

Continuing the tradition, ACL 2018 will feature 20 papers which were accepted for publication in the Transactions of the Association for Computational Linguistics (TACL). The TACL papers were split into 10 oral presentations and 10 poster presentations.

There are many people to thank for who have worked diligently to make ACL 2018 possible. All names are listed in the Program Committee section of the Front Matter.

Since the conference size continues to grow and the organizational complexity increases, we have introduced the role of Program Committee Co-Chair Assistants. In total, 5 senior researchers have supported the PCs during most intensive work phases to handle the communication in a timely manner, draft various documents and effectively prepare decisions.

Thanks to our area chairs for their hard work on recruiting reviewers, managing reviews, leading discussions, and making recommendations.

This program certainly would not be possible without the help of the 1610 reviewers. In particular, 192 reviewers from this list were recognized by the area chairs as outstanding reviewers who have turned in exceptionally well-written and constructive reviews and who have actively engaged themselves in the post-rebuttal discussions.

We are also deeply indebted to the best paper selection committee which consists of 22 members. They had to additionally review 6-8 papers according to the best paper criteria on short notice. Their time and effort in recommending the best paper awards is much appreciated.

We also would like to thank many colleagues for generously sharing their experience in organizing prior ACL conferences and for their advice. We are grateful for the guidance and the support of the ACL presidents Joakim Nivre and Marti Hearst, and the ACL board. We also would like to thank the publication co-chairs Shay Cohen, Kevin Gimpel and Wei Lu (Advisory) and the handbook chair Jey Han Lau for putting together the proceedings and the conference handbook; and Rich Gerber from Softconf for always being responsive to our requests. We would like to thank the ACL Business Manager Priscilla Rasmussen for helping us to sort important things out. Finally, this conference could not have happened without the efforts of the general chair, Claire Cardie. We thank her for the leadership and advice, especially when matters got complicated.

We hope you will enjoy ACL 2018 and contribute to the future success of our community!

ACL 2018 Program Committee Co-Chairs
Iryna Gurevych, TU Darmstadt, Germany
Yusuke Miyao, National Institute of Informatics, Japan

The process for selecting best papers and honourable mentions

The Program Committee Co-Chairs (PCs) have defined a multi-step process. Area Chairs (ACs) were asked to select a number of top papers in their areas satisfying as many as possible of the following criteria:

- high quality
- nominated for the award by at least one primary reviewer
- bringing disruptive ground-breaking innovation as compared to the current mainstream

ACs re-read their finalists and discussed among themselves the merits of the nominee's work with the help of the primary reviews. ACs then submitted the papers to the PCs along with their selection decisions. PCs balanced ACs' nominations for diversity and representativeness among areas and the review consistency. They prepared the papers in Softconf for best-paper reviewing and selection. There were 52 best paper candidates.

In parallel, PCs formed the best paper selection committee (BPC) from 22 experts in the field with a mix of expertise and backgrounds and at a good seniority level. In case of COIs, the BPC member was excluded from the further evaluation process. BPC members reviewed 6-8 papers each and provided a short review with respect to the best paper criteria.

Based on BPC recommendations, there were about 20 papers left in the pool. PCs then re-read those papers and discussed their particular merits. Finally, 6 long papers and 2 short papers were selected as honourable mentions. For the best papers, 3 long papers and 2 short papers were selected for presentation in the closing conference session.

The selected honourable mentions and best papers emphasize the diversity of the ACL in terms of research questions, methods, and interdisciplinarity.

Best Long Papers

- *Finding syntax in human encephalography with beam search.* John Hale, Chris Dyer, Adhiguna Kuncoro and Jonathan Brennan.
- *Learning to Ask Good Questions: Ranking Clarification Questions using Neural Expected Value of Perfect Information.* Sudha Rao and Hal Daumé III.
- *Let's do it "again": A First Computational Approach to Detecting Adverbial Presupposition Triggers.* Andre Cianflone, Yulan Feng, Jad Kabbara and Jackie Chi Kit Cheung.

Best Short Papers

- *Know What You Don't Know: Unanswerable Questions for SQuAD.* Pranav Rajpurkar, Robin Jia and Percy Liang.
- *'Lighter' Can Still Be Dark: Modeling Comparative Color Descriptions.* Olivia Winn and Smaranda Muresan.

Invited Talk: Deep Neural Networks, and what they're not very good at

Anton van den Hengel
Professor, School of Computer Science, University of Adelaide

Abstract: Deep Neural Networks have had an incredible impact in a variety of areas within machine learning, including computer vision and natural language processing. Deep Neural Networks use implicit representations that are very high-dimensional, however, and are thus particularly well suited to problems that can be solved by associative recall of previous solutions. They are ill-suited to problems that require human-interpretable representations, explicit manipulation of symbols, or reasoning. The dependency of Deep Neural Networks on large volumes of training data, also means that they are typically only applicable when the problem itself, and the nature of the test data, are predictable long in advance.

The application of Deep Neural Networks to Visual Question Answering has achieved results that would have been thought impossible only a few years ago. It has also thrown a spotlight on the shortcomings of current Deep Nets in solving problems that require explicit reasoning, the use of a knowledge base, or the ability to learn on the fly. In this talk I will illustrate some of the steps being taken to address these problems, and a new learning-to-learn approach that we hope will combine the power of Deep Learning with the significant benefits of explicit-reasoning-based methods.

Bio: Anton van den Hengel is a Professor in the School of Computer Science at the University of Adelaide, the Director of the Australian Institute for Machine Learning, and a Chief Investigator of the Australian Centre for Robotic Vision. Prof. van den Hengel has been a CI on over $60m in external research funding from sources including Google, Canon, BHP Billiton and the ARC, and has won a number of awards, including the Pearcey Foundation Entrepreneur Award, the SA Science Excellence Award for Research Collaboration, and the CVPR Best Paper prize in 2010. He has authored over 300 publications, had 8 patents commercialised, formed 2 start-ups, and has recently had a medical technology achieve first-in-class FDA approval. Current research interests include Deep Learning, vison and language problems, interactive image-based modelling, large-scale video surveillance, and learning from large image databases.

Invited Talk: Who is the Bridge Between the What and the How

Carolyn Penstein Rosé
Professor, School of Computer Science, Carnegie Mellon University

Abstract: This talk reports on over a decade of research where theoretical foundations motivate computational models that produce real world impact in online spaces. Both the earliest philosophers of language and the most recent researchers in computational approaches to social media analysis have acknowledged the distinction between the what of language, namely its propositional content, and the how of language, or its form, style, or framing. What bridges between these realms are social processes that motivate the linguistic choices that result in specific realizations of propositional content situated within social interactions, designed to achieve social goals. These insights allow researchers to make sense of the connection between discussion processes and outcomes from those discussions. These findings motivate on the one hand design of computational approaches to real time monitoring of discussion processes and on the other hand the design of interventions that support interactions in online spaces with the goal of increasing desired outcomes, including learning, health, and wellbeing.

As an example, in this talk we probe into a specific quality of discussion referred to as Transactivity. Transactivity is the extent to which a contribution articulates the reasoning of the speaker, that of an interlocutor, and the relation between them. In different contexts, and within very distinct theoretical frameworks, this construct has been associated with solidarity, influence, expertise transfer, and learning. Within the construct of Transactivity, the cognitive and social underpinnings are inextricably linked such that modeling the who enables prediction of the connection between the what and the how.

Bio: Dr. Carolyn Rosé is a Professor of Language Technologies and Human-Computer Interaction in the School of Computer Science at Carnegie Mellon University. Her research program is focused on better understanding the social and pragmatic nature of conversation, and using this understanding to build computational systems that can improve the efficacy of conversation between people, and between people and computers. In order to pursue these goals, she invokes approaches from computational discourse analysis and text mining, conversational agents, and computer supported collaborative learning. Her research group's highly interdisciplinary work, published in 200 peer reviewed publications, is represented in the top venues in 5 fields: namely, Language Technologies, Learning Sciences, Cognitive Science, Educational Technology, and Human-Computer Interaction, with awards in 3 of these fields. She serves as Past President and Inaugural Fellow of the International Society of the Learning Sciences, Chair of the International Alliance to Advance Learning in the Digital Era, and Executive Editor of the International Journal of Computer-Supported Collaborative Learning.

Organising Committee

General Chair:

Claire Cardie, Cornell University

Program Chairs:

Iryna Gurevych, TU Darmstadt
Yusuke Miyao, National Institute of Informatics

Workshop Chairs:

Brendan O'Connor, University of Massachusetts Amherst
Eva Maria Vecchi, University of Cambridge

Tutorial Chairs:

Yoav Artzi, Cornell University
Jacob Eisenstein, Georgia Institute of Technology

Demo Chairs:

Fei Liu, University of Central Florida
Thamar Solorio, University of Houston

Publications Chairs:

Shay Cohen, University of Edinburgh
Kevin Gimpel, Toyota Technological Institute at Chicago
Wei Lu, Singapore University of Technology and Design (Advisory)

Exhibits Coordinator:

Karin Verspoor, University of Melbourne

Conference Handbook Chairs:

Jey Han Lau, IBM Research
Trevor Cohn, University of Melbourne

Publicity Chair:

Sarvnaz Karimi, CSIRO

Local Sponsorship Chair:

Cecile Paris, CSIRO

Local Chairs:

Tim Baldwin, University of Melbourne
Karin Verspoor, University of Melbourne
Trevor Cohn, University of Melbourne

Student Research Workshop Organisers:

Vered Shwartz, Bar-Ilan University
Jeniya Tabassum, Ohio State University
Rob Voigt, Stanford University

Faculty Advisors to the Student Research Workshop:

Marie-Catherine de Marneffe, Ohio State University
Wanxiang Che, Harbin Institute of Technology
Malvina Nissim, University of Groningen

Webmaster:

Andrew MacKinlay, Culture Amp / University of Melbourne

Program Committee

Program Committee Co-Chairs

Iryna Gurevych, TU Darmstadt, Germany
Yusuke Miyao, National Institute of Informatics, Japan

Program Committee Co-Chair Assistants

Yang Gao, TU Darmstadt, Germany
Ivan Habernal, TU Darmstadt, Germany
Sang Phan, National Institute of Informatics, Japan
Steffen Eger, TU Darmstadt, Germany
Christian Meyer, TU Darmstadt, Germany

Area Chairs

Senior Area Chairs are indicated in boldface.

Dialogue and Interactive Systems

Asli Celikyilmaz
Verena Rieser
Milica Gasic
Jason Williams

Discourse and Pragmatics

Manfred Stede
Ani Nenkova

Document Analysis

Hang Li
Yiqun Liu
Eugene Agichtein

Generation

Ioannis Konstas
Claire Gardent

Information Extraction and Text Mining

Feiyu Xu
Kevin Cohen
Zhiyuan Liu
Ralph Grishman
Yi Yang
Nazli Goharian

Linguistic Theories, Cognitive Modeling and Psycholinguistics

Shuly Wintner
Tim O'Donnell

Machine Learning

Andre Martins
Ariadna Quattoni
Jun Suzuki

Machine Translation

Yang Liu (Tsinghua University)
Matt Post
Lucia Specia
Dekai Wu

Multidisciplinary and Area Chair COI

Yoav Goldberg
Anders Søgaard
Mirella Lapata

Multilinguality

Bernardo Magnini
Tristan Miller

Phonology, Morphology and Word Segmentation

Graham Neubig
Hai Zhao

Question Answering

Lluís Màrquez
Teruko Mitamura
Zornitsa Kozareva
Richard Socher

Resources and Evaluation

Gerard de Melo
Sara Tonelli
Karën Fort

Sentence-level Semantics

Luke Zettlemoyer
Ellie Pavlick
Jacob Uszkoreit

Sentiment Analysis and Argument Mining

Smaranda Muresan
Benno Stein
Yulan He

Social Media

David Jurgens

Jing Jiang

Summarization

Kathleen McKeown
Xiaodan Zhu

Tagging, Chunking, Syntax and Parsing

Liang Huang
Weiwei Sun
Željko Agić
Yue Zhang

Textual Inference and Other Areas of Semantics

Michael Roth
Fabio Massimo Zanzotto

Vision, Robotics, Multimodal, Grounding and Speech

Yoav Artzi
Shinji Watanabe
Timothy Hospedales

Word-level Semantics

Ekaterina Shutova
Roberto Navigli

Best Paper Selection Committee

Timothy Baldwin
Pushpak Bhattacharyya
Phil Blunsom
Johan Bos
Jordan Boyd-Graber
Trevor Cohn
Vera Demberg
Kevin Duh
Katrin Erk
Mark Johnson
Yang Liu (Tsinghua University)
Yuji Matsumoto
Jong Park
Ellie Pavlick
Simone Paolo Ponzetto
Sebastian Riedel
Carolyn Penstein Rosé
Noah A. Smith
Anders Søgaard
Ivan Titov
Benjamin Van Durme
Ming Zhou

Primary Reviewers

Outstanding reviewers are indicated in boldface.

Mourad Abbas, Ahmed Abdelali, Asad Abdi, **Muhammad Abdul-Mageed**, **Omri Abend**, Gilles Adda, Heike Adel, Stergos Afantenos, Apoorv Agarwal, Arvind Agarwal, Rodrigo Agerri, Roee Aharoni, Murat Akbacak, Mohammad Akbari, Alan Akbik, Ahmet Aker, Elif Aktolga, Mohamed Al-Badrashiny, Firoj Alam, Chris Alberti, Hanan Aldarmaki, **Enrique Alfonseca**, David Alfter, Afra Alishahi, Laura Alonso Alemany, Ashjan Alsulaimani, David Alvarez-Melis, Carlos Alzate, **Maxime Amblard**, Daniel Andrade, **Jacob Andreas**, Nicholas Andrews, Ion Androutsopoulos, Anietie Andy, Galia Angelova, Jean-Yves Antoine, **Marianna Apidianaki**, **Emilia Apostolova**, Jun Araki, Kenji Araki, Yuki Arase, Philip Arthur, Masayuki Asahara, Ramón Astudillo, John Atkinson, Giuseppe Attardi, Isabelle Augenstein, Eleftherios Avramidis, Amittai Axelrod, Wilker Aziz, AmirAli Bagher Zadeh, JinYeong Bak, Collin Baker, Simon Baker, Omid Bakhshandeh, Alexandra Balahur, Mithun Balakrishna, Vevake Balaraman, Niranjan Balasubramanian, Timothy Baldwin, Kalika Bali, Miguel Ballesteros, David Bamman, Rafael E. Banchs, Srinivas Bangalore, Mohit Bansal, Roy Bar-Haim, Libby Barak, Ken Barker, Marco Baroni, Alberto Barrón-Cedeño, Sabine Bartsch, Pierpaolo Basile, Valerio Basile, Roberto Basili, Daniel Bauer, Timo Baumann, **Rachel Bawden**, Frederic Bechet, Daniel Beck, Srikanta Bedathur, **Beata Beigman Klebanov**, Núria Bel, Yonatan Belinkov, Meriem Beloucif, Iz Beltagy, Anja Belz, Yassine Benajiba, **Jonathan Berant**, Raffaella Bernardi, Yevgeni Berzak, Laurent Besacier, Steven Bethard, Rahul Bhagat, Archna Bhatia, Sumit Bhatia, Pushpak Bhattacharyya, Ergun Biçici, Ann Bies, Lidong Bing, **Joachim Bingel**, **Or Biran**, Alexandra Birch, Arianna Bisazza, Yonatan Bisk, Johannes Bjerva, Anders Björkelund, Philippe Blache, Frédéric Blain, Eduardo Blanco, Michael Bloodgood, Bernd Bohnet, Ondřej Bojar, Danushka Bollegala, Daniele Bonadiman, Claire Bonial, Francesca Bonin, Kalina Bontcheva, Georgeta Bordea, **Benjamin Börschinger**, Johan Bos, Elizabeth Boschee, **Antoine Bosselut**, Fethi Bougares, Pierrette Bouillon, **Gerlof Bouma**, **Samuel Bowman**, Cem Bozsahin, David Bracewell, James Bradbury, S.R.K. Branavan, António Branco, Chloé Braud, Ted Briscoe, **Chris Brockett**, Julian Brooke, Thomas Brovelli (Meyer), Christian Buck, Paweł Budzianowski, Michael Bugert, Paul Buitelaar, Harry Bunt, Franck Burlot, Hendrik Buschmeier, Miriam Butt, Jan Buys, José G. C. de Souza, Deng Cai, Iacer Calixto, Chris Callison-Burch, Jose Camacho-Collados, **Erik Cambria**, Leonardo Campillos Llanos, B Rosario Campomanes-Alvarez, **Burcu Can**, Yuan Cao, Yunbo Cao, Giuseppe Carenini, Marine Carpuat, Xavier Carreras, John Carroll, Paula Carvalho, Vitor Carvalho, Francisco Casacuberta, Iñigo Casanueva, Helena Caseli, **Tommaso Caselli**, Taylor Cassidy, Giuseppe Castellucci, Daniel Cer, Christophe Cerisara, Özlem Çetinoğlu, Mauro Cettolo, Joyce Chai, Yllias Chali, **Nathanael Chambers**, Muthu Kumar Chandrasekaran, Akshay Chandrashekaran, **Angel Chang**, Baobao Chang, Chia-Hui Chang, Kai-Wei Chang, Yin-Wen Chang, Snigdha Chaturvedi, Wanxiang Che, **Ciprian Chelba**, Bin Chen, Boxing Chen, Chen Chen, Danqi Chen, Hsin-Hsi Chen, Qian Chen, Qingcai Chen, Wenliang Chen, Xinchi Chen, Yubo Chen, **Yun-Nung Chen**, Zhiyuan Chen, Fei Cheng, **Hao Cheng**, Jianpeng Cheng, Pu-Jen Cheng, Colin Cherry, Jackie Chi Kit Cheung, David Chiang, Christian Chiarcos, Jen-Tzung Chien, Hai Leong Chieu, Dokook Choe, Eunsol Choi, Yejin Choi, Kostadin Cholakov, Grzegorz Chrupała, Chenhui Chu, Tagyoung Chung, Kenneth Church, Mark Cieliebak, Philipp Cimiano, Volkan Cirik, Alexander Clark, Stephen Clark, Guillaume Cleuziou, Ann Clifton, **Maximin Coavoux**, **Anne Cocos**, **Arman Cohan**, Kevin Cohen, Shay B. Cohen, Michael Collins, John Conroy, Matthieu Constant, Danish Contractor, Paul Cook, Marta R. Costa-jussà, Ryan Cotterell, **Alain Couillault**, Benoit Crabbé, Danilo Croce, **Paul Crook**, James Cross, Montse Cuadros, Heriberto Cuayahuitl, Silviu-Petru Cucerzan, Lei Cui, Xiaodong Cui, Aron Culotta, Shane Culpepper, Anna Currey, Luis Fernando D'Haro, Giovanni Da San Martino, Walter Daelemans, Xin-Yu Dai, Beatrice Daille, Fahim Dalvi, Cristian Danescu-Niculescu-Mizil, Falavigna Daniele, Kareem Darwish, Abhishek Das, Amitava Das, Dipanjan Das, Tirthankar Dasgupta, Johannes Daxenberger, Gaël de Chalendar, Munmun De Choudhury, Adrià de Gispert, Daniël de Kok, Eric De La Clergerie, **Marie-Catherine de Marneffe**, Renato de Mori, Thierry Declerck, Luciano Del Corro, Louise Deléger, Felice Dell'Orletta, **Claudio Delli Bovi**, Rodolfo Delmonte, Vera Demberg, Dina Demner-Fushman, Lingjia Deng, Pascal Denis, Michael Denkowski, Tejaswini Deoskar, Valeria

dePaiva, Nina Dethlefs, **Chris Develder**, Barry Devereux, Bhuwan Dhingra, Luigi Di Caro, Giuseppe Di Fabbrizio, Emanuele Di Rosa, Mona Diab, Gaël Dias, Jana Diesner, Shuoyang Ding, Georgiana Dinu, Stefanie Dipper, Nemanja Djuric, Dmitriy Dligach, Simon Dobnik, Jesse Dodge, A. Seza Doğruöz, Tobias Domhan, Daxiang Dong, **Li Dong**, Shichao Dong, Doug Downey, Mark Dras, Markus Dreyer, Patrick Drouin, Lan Du, Xinya Du, Nan Duan, Xiangyu Duan, Pablo Duboue, Shiran Dudy, **Kevin Duh**, Stefan Daniel Dumitrescu, **Greg Durrett**, **Ondřej Dušek**, Chris Dyer, Hiroshi Echizen'ya, **Judith Eckle-Kohler**, Markus Egg, Patrick Ehlen, Maud Ehrmann, Vladimir Eidelman, Andreas Eisele, **Jacob Eisenstein**, Layla El Asri, Shady Elbassuoni, Mohamed Eldesouki, Michael Elhadad, Desmond Elliott, **Guy Emerson**, Erkut Erdem, **Mihail Eric**, Tomaž Erjavec, **Katrin Erk**, Arash Eshghi, Ramy Eskander, Cristina España-Bonet, Luis Espinosa Anke, Miquel Esplà-Gomis, Kilian Evang, **Ingrid Falk**, Hao Fang, Hui Fang, Licheng Fang, Meng Fang, Benamara Farah, Stefano Faralli, Richárd Farkas, Maryam Fazel-Zarandi, Afsaneh Fazly, Marcello Federico, Christian Federmann, Anna Feldman, Yansong Feng, Olivier Ferret, Alejandro Figueroa, Elena Filatova, Simone Filice, Denis Filimonov, Katja Filippova, Andrew Finch, Mark Finlayson, Orhan Firat, Mark Fishel, Nicholas FitzGerald, Jeffrey Flanigan, **Margaret Fleck**, Lucie Flekova, Radu Florian, Antske Fokkens, Eric Fosler-Lussier, **George Foster**, **James Foulds**, Marc Franco-Salvador, Thomas Francois, Stella Frank, Dayne Freitag, Markus Freitag, André Freitas, **Lea Frermann**, **Daniel Fried**, Annemarie Friedrich, Hagen Fuerstenau, Akinori Fujino, Fumiyo Fukumoto, Sadaoki Furui, Robert Gaizauskas, Olivier Galibert, Irina Galinskaya, Matthias Gallé, Michel Galley, Kuzman Ganchev, Octavian-Eugen Ganea, Bin Gao, Jianfeng Gao, **Wei Gao**, Claire Gardent, **Dan Garrette**, **Albert Gatt**, Eric Gaussier, Tao Ge, **Lieke Gelderloos**, Spandana Gella, Kallirroi Georgila, Pablo Gervás, Marjan Ghazvininejad, Debanjan Ghosh, Sucheta Ghosh, Daniela Gifu, Daniel Gildea, C Lee Giles, Kevin Gimpel, Roxana Girju, **Dimitra Gkatzia**, **Goran Glavaš**, Dan Goldwasser, **Carlos Gómez-Rodríguez**, Hugo Gonçalo Oliveira, Jibing Gong, Yeyun Gong, Graciela Gonzalez-Hernandez, Jesús González-Rubio, Kyle Gorman, Matthew R. Gormley, **Cyril Goutte**, Kartik Goyal, Natalia Grabar, Joao Graca, Jorge Gracia, Yvette Graham, Roger Granada, **Christophe Gravier**, **Gregory Grefenstette**, Cyril Grouin, Marco Guerini, Anupam Guha, Lin Gui, Bruno Guillaume, Curry Guinn, **Kristina Gulordava**, Weiwei Guo, Yuhong Guo, **Arpit Gupta**, Joakim Gustafson, **E. Dario Gutierrez**, Francisco Guzmán, Jeremy Gwinnup, Maryam Habibi, Ben Hachey, Christian Hadiwinoto, Gholamreza Haffari, Udo Hahn, Hannaneh Hajishirzi, Dilek Hakkani-Tur, Keith Hall, **William L. Hamilton**, Michael Hammond, Thierry Hamon, Ting Han, Xianpei Han, Sanda Harabagiu, Christian Hardmeier, Orin Hargraves, Sadid A. Hasan, Kazuma Hashimoto, Eva Hasler, Ahmed Hassan Awadallah, Hany Hassan, Helen Hastie, Katsuhiko Hayashi, He He, Hua He, **Luheng He**, Shizhu He, Xiangnan He, Kenneth Heafield, James Henderson, Matthew Henderson, **Lisa Anne Hendricks**, **Aurélie Herbelot**, Jonathan Herzig, **Jack Hessel**, **John Hewitt**, Felix Hieber, Ryuichiro Higashinaka, Tsutomu Hirao, **Julia Hirschberg**, **Graeme Hirst**, Julian Hitschler, Lydia-Mai Ho-Dac, Vu Cong Duy Hoang, Johannes Hoffart, Chris Hokamp, Chester Holtz, **Ari Holtzman**, Yu Hong, Chiori Hori, Takaaki Hori, Ehsan Hosseini-Asl, Yufang Hou, Julian Hough, Dirk Hovy, Eduard Hovy, **David M. Howcroft**, Renfen Hu, Yuheng Hu, Zhiting Hu, Fei Huang, Hen-Hsen Huang, Lifu Huang, Minlie Huang, Po-Sen Huang, Ruihong Huang, Shujian Huang, Xuanjing Huang, Matthias Huck, Mans Hulden, **Tim Hunter**, Jena D. Hwang, Seung-won Hwang, Ignacio Iacobacci, Nancy Ide, Marco Idiart, Adrian Iftene, Ryu Iida, Naoya Inoue, Kentaro Inui, **Srinivasan Iyer**, Mohit Iyyer, Tommi Jaakkola, **Cassandra L. Jacobs**, **Aaron Jaech**, Kokil Jaidka, **Laura Jehl**, **Yacine Jernite**, Rahul Jha, Donghong Ji, Yangfeng Ji, Robin Jia, Sittichai Jiampojamarn, Hui Jiang, Antonio Jimeno Yepes, Hongyan Jing, **Charles Jochim**, Richard Johansson, Kristiina Jokinen, Gareth Jones, **Aditya Joshi**, Shafiq Joty, Marcin Junczys-Dowmunt, Ákos Kádár, Sylvain Kahane, **Hetunandan Kamisetty**, **Herman Kamper**, Jaap Kamps, Min-Yen Kan, Hiroshi Kanayama, **Dongyeop Kang**, Katharina Kann, Diptesh Kanojia, Dimitri Kartsaklis, Makoto P. Kato, David Kauchak, Daisuke Kawahara, Tatsuya Kawahara, Anna Kazantseva, **Hideto Kazawa**, Chris Kedzie, **Andrew Kehler**, Simon Keizer, Ruth Kempson, Casey Kennington, Fabio Kepler, Nitish Shirish Keskar, Mitesh M. Khapra, Huda Khayrallah, **Douwe Kiela**, Yuta Kikuchi, **Halil Kilicoglu**, Jin-Dong Kim, Sun Kim, **Yoon Kim**, Young-Bum Kim, **Brian Kingsbury**, Eliyahu Kiperwasser, Svetlana Kiritchenko, Chunyu Kit, Dietrich Klakow, Alexandre Klementiev, Manfred Klenner, Sigrid Klerke, **Ro-**

man Klinger, Julien Kloetzer, Kevin Knight, Sosuke Kobayashi, Thomas Kober, **Ekaterina Kochmar**, Philipp Koehn, **Alexander Koller**, Kazunori Komatani, **Rik Koncel-Kedziorski**, **Grzegorz Kondrak**, Lingpeng Kong, **Maximilian Köper**, Stefan Kopp, Selcuk Kopru, Parisa Kordjamshidi, Valia Kordoni, Anna Korhonen, Yannis Korkontzelos, Leila Kosseim, Katsunori Kotani, Lili Kotlerman, Emiel Krahmer, Martin Krallinger, Julia Kreutzer, **Jayant Krishnamurthy**, Kriste Krstovski, Canasai Kruengkrai, **Ivana Kruijff-Korbayova**, **Germán Kruszewski**, Lun-Wei Ku, Marco Kuhlmann, Roland Kuhn, Ashish Kulkarni, Gaurav Kumar, **Shankar Kumar**, Anil Kumar Singh, **Jonathan K. Kummerfeld**, Adhiguna Kuncoro, Souvik Kundu, Gakuto Kurata, Sadao Kurohashi, Nate Kushman, Andrey Kutuzov, Polina Kuznetsova, Majid Laali, Gorka Labaka, Anirban Laha, Mathias Lambert, Vasileios Lampos, **Gerasimos Lampouras**, Ian Lane, Ni Lao, Mirella Lapata, Shalom Lappin, Romain Laroche, Kornel Laskowski, Alberto Lavelli, Alon Lavie, Phong Le, **Joseph Le Roux**, Robert Leaman, Gianluca Lebani, **Chia-ying Lee**, Hung-yi Lee, John Lee, Kenton Lee, Lin-shan Lee, Moontae Lee, Sungjin Lee, Yoong Keok Lee, **Young-Suk Lee**, **Els Lefever**, Fabrice Lefevre, Wenqiang Lei, Jochen L. Leidner, Gaël Lejeune, Alessandro Lenci, Piroska Lendvai, Yves Lepage, Johannes Leveling, Tomer Levinboim, Omer Levy, **Roger Levy**, Mike Lewis, Baoli Li, Cheng-Te Li, Chenliang Li, Chunyuan Li, Fangtao Li, Haizhou Li, Jing Li, Juanzi Li, Junhui Li, Junyi Jessy Li, Piji Li, Qing Li, **Shaohua Li**, Sheng Li, Shoushan Li, Sujian Li, Wenjie Li, Xiangsheng Li, Xiaoli Li, **Xiujun Li**, Yanran Li, Zhenghua Li, Zhixing Li, Zichao Li, **Maria Liakata**, Chen Liang, **Timm Lichte**, Anne-Laure Ligozat, Nut Limsopatham, **Chenghua Lin**, Chin-Yew Lin, Jimmy Lin, Shou-de Lin, Xi Victoria Lin, Xiao Ling, **Tal Linzen**, Zachary Lipton, Pierre Lison, Diane Litman, Marina Litvak, Bing Liu, Changsong Liu, Fei Liu, Jing Liu, Kang Liu, Lemao Liu, Qian Liu, Qiaoling Liu, Qun Liu, Shujie Liu, Ting Liu, Xiaobing Liu, Yang Liu (University of Texas at Dallas), Yang Liu (University of Edinburgh), Yang Liu (Tsinghua University), Yijia Liu, Zhiyuan Liu, Elena Lloret, **Sharid Loáiciga**, José Lopes, Lucelene Lopes, Marcos Lopes, Oier Lopez de Lacalle, Aurelio Lopez-Lopez, Annie Louis, Samuel Louvan, Bin Lu, Qin Lu, **Wei Lu**, Xiaofei Lu, Yanbin Lu, Zhiyong Lu, Yi Luan, **Andy Luecking**, **Stephanie M. Lukin**, Cheng Luo, Jiaming Luo, Xiaoqiang Luo, Zhunchen Luo, Franco M. Luque, Anh Tuan Luu, Teresa Lynn, Ji Ma, Jianqiang Ma, Mingbo Ma, Xuezhe Ma, Wolfgang Macherey, Pranava Swaroop Madhyastha, Nitin Madnani, Pierre Magistry, Simone Magnolini, **Wolfgang Maier**, **Jean Maillard**, Prodromos Malakasiotis, Alfredo Maldonado, Andreas Maletti, Igor Malioutov, Radhika Mamidi, Suresh Manandhar, Gideon Mann, Christopher D. Manning, Diego Marcheggiani, Daniel Marcu, David Mareček, **Matthew Marge**, Alex Marin, Erwin Marsi, Scott Martin, Héctor Martínez Alonso, Bruno Martins, David Martins de Matos, Yuval Marton, **Yann Mathet**, Prashant Mathur, Shigeki Matsubara, Yuji Matsumoto, Yoichi Matsuyama, Takuya Matsuzaki, Austin Matthews, Jonathan May, Karen Mazidi, David McAllester, Diana McCarthy, **R. Thomas Mccoy**, **John Philip McCrae**, Stephen McGregor, Tara McIntosh, Louise McNally, Yashar Mehdad, Sameep Mehta, **Hongyuan Mei**, Oren Melamud, Nurit Melnik, Arul Menezes, Fandong Meng, Slim Mesfar, **Florian Metze**, Haitao Mi, Yishu Miao, Antonio Valerio Miceli Barone, Claudiu Mihăilă, Todor Mihaylov, Elena Mikhalkova, Timothy Miller, Tristan Miller, Bonan Min, **Anne-Lyse Minard**, Michael Minock, Toben Mintz, Shachar Mirkin, Seyed Abolghasem Mirroshandel, Paramita Mirza, **Abhijit Mishra**, Dipendra Misra, Prasenjit Mitra, Vikramjit Mitra, Arpit Mittal, Makoto Miwa, Junta Mizuno, Daichi Mochihashi, Ashutosh Modi, Marie-Francine Moens, Samaneh Moghaddam, Abdelrahman Mohamed, **Saif Mohammad**, Behrang Mohit, Michael Mohler, Mitra Mohtarami, Karo Moilanen, Luis Gerardo Mojica de la Vega, Helena Moniz, Johanna Monti, **Nafise Sadat Moosavi**, Roser Morante, Erwan Moreau, Shinsuke Mori, Hajime Morita, Andrea Moro, David R. Mortensen, Alessandro Moschitti, Nasrin Mostafazadeh, Lili Mou, Diego Moussallem, Nikola Mrkšić, Arjun Mukherjee, Tanmoy Mukherjee, Philippe Muller, Yugo Murawaki, Gabriel Murray, Kenton Murray, Elena Musi, Sung-Hyon Myaeng, Maria Nadejde, Masaaki Nagata, Ajay Nagesh, Tetsuji Nakagawa, Yukiko Nakano, Ndapa Nakashole, Preslav Nakov, Courtney Napoles, Jason Naradowsky, Karthik Narasimhan, **Shashi Narayan**, Shrikanth Narayanan, Masha Naslidnyk, Alexis Nasr, Vivi Nastase, Borja Navarro-Colorado, Adeline Nazarenko, Arvind Neelakantan, Matteo Negri, Aida Nematzadeh, Guenter Neumann, Aurélie Névéol, Denis Newman-Griffis, **Dominick Ng**, Hwee Tou Ng, Jun-Ping Ng, Vincent Ng, Dong Nguyen, Thien Huu Nguyen, Truc-Vien T. Nguyen, Viet-An Nguyen, Garrett Nicolai, Massimo Nicosia, Vlad

Niculae, **Jian-Yun Nie**, Jan Niehues, Ivelina Nikolova, Kristina Nilsson Björkenstam, **Sergiu Nisioi**, **Joakim Nivre**, Cicero Nogueira dos Santos, Hiroshi Noji, Joel Nothman, Damien Nouvel, **Diarmuid Ó Séaghdha**, Stephan Oepen, Kemal Oflazer, Alice Oh, Jong-Hoon Oh, Kiyonori Ohtake, Hidekazu Oiwa, Naoaki Okazaki, Hiroshi G. Okuno, Shereen Oraby, Constantin Orasan, Vicente Ordonez, Petya Osenova, Simon Ostermann, Robert Östling, Myle Ott, Jessica Ouyang, Katja Ovchinnikova, Arzucan Özgür, Muntsa Padró, **Alexis Palmer**, Martha Palmer, Alessio Palmero Aprosio, Joao Palotti, Boyuan Pan, Sinno Jialin Pan, Xiaoman Pan, Alexander Panchenko, Alexandros Papangelis, Denis Paperno, Ankur Parikh, Cecile Paris, **Seong-Bae Park**, Yannick Parmentier, Patrick Paroubek, **Carla Parra Escartín**, Tommaso Pasini, Peyman Passban, **Panupong Pasupat**, Siddharth Patwardhan, Michael J. Paul, Adam Pauls, Romain Paulus, Adam Pease, Pavel Pecina, Bolette Pedersen, Anselmo Peñas, Baolin Peng, Hao Peng, Haoruo Peng, Nanyun Peng, Xiaochang Peng, Laura Perez-Beltrachini, **Isaac Persing**, Casper Petersen, Fabio Petroni, Slav Petrov, Miriam R L Petruck, Hieu Pham, Nghia The Pham, Karl Pichotta, Roberto Pieraccini, Olivier Pietquin, **Mohammad Taher Pilehvar**, Juan Pino, Yuval Pinter, Emily Pitler, Paul Piwek, Barbara Plank, Massimo Poesio, Thierry Poibeau, Heather Pon-Barry, Edoardo Maria Ponti, Simone Paolo Ponzetto, Andrei Popescu-Belis, Maja Popović, Fred Popowich, François Portet, **Christopher Potts**, Vinodkumar Prabhakaran, Daniel Preoţiuc-Pietro, Laurent Prévot, Emily Prud'hommeaux, Matthew Purver, James Pustejovsky, Valentina Pyatkin, **Ashequl Qadir**, Vahed Qazvinian, Peng Qi, Longhua Qian, Lianhui Qin, Long Qiu, Minghui Qiu, Xipeng Qiu, Lizhen Qu, Uwe Quasthoff, Chris Quirk, **Alessandro Raganato**, Altaf Rahman, Jonathan Raiman, Taraka Rama, Vikram Ramanarayanan, Maya Ramanath, Rohan Ramanath, Carlos Ramisch, Jinfeng Rao, Ari Rappoport, Mohammad Sadegh Rasooli, Pushpendre Rastogi, Soumya Ray, Manny Rayner, Simon Razniewski, Livy Real, Siva Reddy, Chris Reed, **Ines Rehbein**, Georg Rehm, Marek Rei, Roi Reichart, Julia Reinspach, Ehud Reiter, **Steffen Remus**, Xiang Ren, Zhaochun Ren, Christian Retore, Corentin Ribeyre, Kyle Richardson, Matthew Richardson, Mark Riedl, Martin Riedl, Jason Riesa, Stefan Riezler, German Rigau, Ellen Riloff, **Laura Rimell**, Fabio Rinaldi, Alan Ritter, Kirk Roberts, Molly Roberts, Ina Roesiger, Marcus Rohrbach, Oleg Rokhlenko, Laurent Romary, Salvatore Romeo, Carolyn Penstein Rosé, Andrew Rosenberg, **Sara Rosenthal**, Sophie Rosset, **Paolo Rosso**, Benjamin Roth, **Michael Roth**, Sascha Rothe, Johann Roturier, Jacobo Rouces, Subhro Roy, Alla Rozovskaya, Raphael Rubino, Sebastian Ruder, **Rachel Rudinger**, Maja Rudolph, Pablo Ruiz, Anna Rumshisky, Josef Ruppenhofer, Vasile Rus, Irene Russo, Delia Rusu, Attapol Rutherford, Mrinmaya Sachan, Kugatsu Sadamitsu, Markus Saers, Kenji Sagae, Benoît Sagot, Saurav Sahay, Cem Sahin, Magnus Sahlgren, Patrick Saint-Dizier, Hassan Sajjad, Keisuke Sakaguchi, Sakriani Sakti, Mohammad Salameh, Elizabeth Salesky, Avneesh Saluja, Rajhans Samdani, Mark Sammons, Germán Sanchis-Trilles, **Marina Santini**, Ruhi Sarikaya, Kamal Sarkar, **Agata Savary**, Asad Sayeed, Carolina Scarton, **Tatjana Scheffler**, **Christian Scheible**, Niko Schenk, Yves Scherrer, Frank Schilder, David Schlangen, Natalie Schluter, Allen Schmaltz, Helmut Schmid, Alexandra Schofield, William Schuler, Björn Schuller, Sabine Schulte im Walde, Claudia Schulz, Sebastian Schuster, Didier Schwab, H. Andrew Schwartz, Lane Schwartz, Roy Schwartz, Donia Scott, Djamé Seddah, Joao Sedoc, Abigail See, Frederique Segond, Satoshi Sekine, Ethan Selfridge, Mark Seligman, Jean Senellart, Rico Sennrich, Minjoon Seo, Christophe Servan, Burr Settles, Armin Seyeditabari, Lei Sha, Izhak Shafran, Kashif Shah, Pararth Shah, Samira Shaikh, Igor Shalyminov, Lifeng Shang, Yan Shao, Ehsan Shareghi, Rebecca Sharp, Lanbo She, Shiqi Shen, Shuming Shi, Hiroyuki Shindo, Koichi Shinoda, Eyal Shnarch, **Vered Shwartz**, Advaith Siddharthan, Avi Sil, Carina Silberer, Max Silberztein, Sameer Singh, Kairit Sirts, Gabriel Skantze, **Noam Slonim**, Kevin Small, **Noah A. Smith**, Jan Šnajder, Richard Socher, Artem Sokolov, **Luca Soldaini**, **Swapna Somasundaran**, Wei Song, Yangqiu Song, Radu Soricut, Aitor Soroa, **Daniil Sorokin**, René Speck, Jennifer Spenader, **Manuela Speranza**, Matthias Sperber, Caroline Sporleder, **Vivek Srikumar**, Somayajulu Sripada, Shashank Srivastava, **Christian Stab**, Sanja Štajner, **Gabriel Stanovsky**, Mark Steedman, Pontus Stenetorp, **Mitchell Stern**, Mark Stevenson, Brandon Stewart, Sebastian Stober, Matthew Stone, Svetlana Stoyanchev, Veselin Stoyanov, Karl Stratos, **Kristina Striegnitz**, **Jannik Strötgen**, **Emma Strubell**, Tomek Strzalkowski, Sara Stymne, Hui Su, Jinsong Su, Keh-Yih Su, Yu Su, David Suendermann-Oeft, Alane Suhr, Ang Sun, Huan Sun, Le Sun, Lin Sun, Weiwei Sun, Xu Sun, Hanna Suominen, Mihai Surdeanu, Simon Suster, Hisami Suzuki, **Swabha**

Swayamdipta, **John Sylak-Glassman**, Stan Szpakowicz, Idan Szpektor, Oscar Täckström, Prasad Tadepalli, Kaveh Taghipour, Nina Tahmasebi, Sho Takase, David Talbot, Aleš Tamchyna, **Akihiro Tamura**, Chenhao Tan, Liling Tan, Niket Tandon, Duyu Tang, Jiliang Tang, Jintao Tang, **Chris Tanner**, Fangbo Tao, Marta Tatu, Christoph Teichmann, Serra Sinem Tekiroglu, Irina Temnikova, Joel Tetreault, Simone Teufel, Kapil Thadani, Stefan Thater, Jesse Thomason, Sam Thomson, Fei Tian, Ran Tian, Jörg Tiedemann, Ivan Titov, Takenobu Tokunaga, Katrin Tomanek, Gaurav Singh Tomar, Marc Tomlinson, Antonio Toral, Kentaro Torisawa, Isabel Trancoso, David Traum, Rocco Tripodi, Alexander Trott, Chen-Tse Tsai, Ming-Feng Tsai, Reut Tsarfaty, Yuta Tsuboi, Oren Tsur, Yoshimasa Tsuruoka, Yulia Tsvetkov, Kewei Tu, Zhaopeng Tu, Dan Tufis, Don Tuggener, Gokhan Tur, Marco Turchi, Ferhan Ture, Francis Tyers, Kateryna Tymoshenko, Kiyotaka Uchimoto, Stefan Ultes, **Shyam Upadhyay**, Olga Uryupina, Dmitry Ustalov, Masao Utiyama, Alessandro Valitutti, Tim Van de Cruys, **Benjamin Van Durme**, Paul Van Eecke, **Menno van Zaanen**, Vincent Vandeghinste, Clara Vania, Tony Veale, Mihaela Vela, Paola Velardi, Sumithra Velupillai, Subhashini Venugopalan, Patrick Verga, Marc Verhagen, Rakesh Verma, Karin Verspoor, **Tim Vieira**, David Vilar, **David Vilares**, **Serena Villata**, Aline Villavicencio, Sami Virpioja, **Andreas Vlachos**, Svitlana Volkova, Elena Volodina, Ngoc Thang Vu, **Thuy Vu**, **Ivan Vulić**, V.G.Vinod Vydiswaran, Ekaterina Vylomova, **Henning Wachsmuth**, Joachim Wagner, **Byron Wallace**, Matthew Walter, Xiaojun Wan, Baoxun Wang, Chenguang Wang, Di Wang, Hai Wang, Hongning Wang, Houfeng Wang, Hua Wang, Jin Wang, Josiah Wang, Linlin Wang, Lu Wang, Mingxuan Wang, Quan Wang, Shaojun Wang, Shuohang Wang, Suge Wang, Tong Wang, Wei Wang, William Yang Wang, Xiaolong Wang, Yu-Chun Wang, Zhichun Wang, Zhongqing Wang, **Zhuoran Wang**, Leo Wanner, Nigel Ward, Zeerak Waseem, Patrick Watrin, Bonnie Webber, Ingmar Weber, Julie Weeds, Furu Wei, Zhongyu Wei, Gerhard Weikum, Marion Weller-Di Marco, **Tsung-Hsien Wen**, Michael White, Antoine Widlöcher, **Michael Wiegand**, **John Wieting**, Derry Tanti Wijaya, Adina Williams, Philip Williams, Sam Wiseman, Marcin Woliński, Derek F. Wong, Kam-Fai Wong, Tak-Lam Wong, Bowen Wu, Chun-Kai Wu, Wei Wu, Yu Wu, Zhaohui Wu, Joern Wuebker, Yunqing Xia, Min Xiao, Tong Xiao, Xinyan Xiao, Yanghua Xiao, **Boyi Xie**, Pengtao Xie, Shasha Xie, Caiming Xiong, Chenyan Xiong, Deyi Xiong, Hua Xu, Ruifeng Xu, Wei Xu, Wenduan Xu, Nianwen Xue, Semih Yagcioglu, Yadollah Yaghoobzadeh, Mohamed Yahya, Takehiro Yamamoto, Rui Yan, Zhao Yan, Bishan Yang, Grace Hui Yang, **Jie Yang**, Liu Yang, Qian Yang, Weiwei Yang, Yaqin Yang, Zhilin Yang, Roman Yangarber, Helen Yannakoudakis, Andrew Yates, Mark Yatskar, Lana Yeganova, Meliha Yetisgen, Pengcheng Yin, Wenpeng Yin, Dani Yogatama, Naoki Yoshinaga, Koichiro Yoshino, Steve Young, Bei Yu, Dian Yu, Jianfei Yu, Kai Yu, Liang-Chih Yu, Mo Yu, Zhengtao Yu, Zhou Yu, **François Yvon**, Wlodek Zadrozny, Virginie Zampa, **Amir Zeldes**, Daojian Zeng, Xiaodong Zeng, Kalliopi Zervanou, Torsten Zesch, Deniz Zeyrek, Biao Zhang, Chao Zhang, Congle Zhang, Dongdong Zhang, Hu Zhang, Jiajun Zhang, Justine Zhang, Li Zhang, Meishan Zhang, Min Zhang, Qi Zhang, Sicong Zhang, Wei-Nan Zhang, **Xingxing Zhang**, Yongfeng Zhang, Bing Zhao, Dongyan Zhao, Hai Zhao, Jun Zhao, Sendong Zhao, Tiancheng Zhao, **Tianyu Zhao**, Tiejun Zhao, Wayne Xin Zhao, Zhou Zhao, Guoqing Zheng, Vincent W. Zheng, Victor Zhong, Deyu Zhou, Guodong Zhou, Xiaobing Zhou, Yingbo Zhou, Muhua Zhu, Xiaodan Zhu, Fuzhen Zhuang, Heike Zinsmeister, Ayah Zirikly, Chengqing Zong, Guido Zuccon, Willem Zuidema, Pierre Zweigenbaum.

Secondary Reviewers

Peter A. Rankel, Ranit Aharonov, Domagoj Alagić, Anusha Balakrishnan, Somnath Banerjee, Joost Bastings, Giannis Bekoulis, Gayatri Bhat, Yonatan Bilu, Filip Boltužić, Svetla Boytcheva, Dominique Brunato, Gaëtan Caillaut, Iacer Calixto, Thiago Castro Ferreira, Dhivya Chinnappa, Arman Cohan, Joana Correia, Sujatha Das Gollapalli, Tobias Daudert, Hugues de Mazancourt, Maksym Del, Thomas Demeester, Ying Ding, Zhang Dong, Seth Ebner, Roxanne El Baff, Akiko Eriguchi, Nawshad Farruque, Quentin Feltgen, Elisa Ferracane, Qiaozi Gao, Pepa Gencheva, Bilal Ghanem, Frederic Godin, Nitish Gupta, Shachi H Kumar, Mareike Hartmann, Zhengqiu He, Irazú Hernández, Geert Heyman, Parag Jain, Sarthak Jain, Jyun-Yu Jiang, Xisen Jin, Vidur Joshi, Meizhi Ju, Joo-Kyung Kim, Jooyeon Kim, Elena Kochkina, Bhushan Kotnis, Florian Kreyssig, Sachin Kumar, Ronja Laarmann-Quante, Patrick Lange, Jihwan Lee, Shasha Li, Xinyi Li, Chen Liang, Yuping Lin, Haochen Liu, Qiuzhi Liu, Tong Liu,

Jing Lu, Yen-Fu Luo, Veronica Lynn, Jing Ma, Sean MacAvaney, Arjun Magge, Nona Naderi, Jingzhi Pang, Sunghyun Park, Peyman Passban, Hao Peng, Yifan Peng, Nina Poerner, Hanieh Poostchi, Paul Pu Liang, Robert Pugh, Niklas Rach, Shiya Ren, Ricardo Rodrigues, Sean Rosario, Adam Roussel, Keisuke Sakaguchi, Zahra Sarabi, Marijn Schraagen, Hannes Schulz, Royal Sequiera, Aliaksei Severyn, Piyush Sharma, Shikhar Sharma, Dinghan Shen, Miikka Silfverberg, Kiril Simov, Devendra Singh Sachan, Youngseo Son, Manuela Speranza, Pei-Hao Su, Remi Tachet des Combes, Andre Tattar, Yi Tay, Suzushi Tomori, Adam Tsakalidis, Bo-Hsiang Tseng, Yi-lin Tuan, Antonio Uva, Alakananda Vempala, Giulia Venturi, Natalia Viani, Chao Wang, Guoyin Wang, Huaming Wang, Longyue Wang, Shuang Wang, Wenya Wang, Xiang Wang, Xinyi Wang, Zongsheng Wang, Sarah Wiegreffe, Ji Xin, Jun Xu, Qiuling Yan, Xiao Yang, Yinfei Yang, Ziyu Yao, Hai Ye, Junjie Yu, Roberto Zanoli, Ziqian Zeng, Sheng Zha, Biao Zhang, Dong Zhang, Yijia Zhang, He Zhao, Huan Zhao, Suyan Zhu.

Table of Contents

Continuous Learning in a Hierarchical Multiscale Neural Network
Thomas Wolf, Julien Chaumond and Clement Delangue 1

Restricted Recurrent Neural Tensor Networks: Exploiting Word Frequency and Compositionality
Alexandre Salle and Aline Villavicencio 8

Deep RNNs Encode Soft Hierarchical Syntax
Terra Blevins, Omer Levy and Luke Zettlemoyer 14

Word Error Rate Estimation for Speech Recognition: e-WER
Ahmed Ali and Steve Renals 20

Towards Robust and Privacy-preserving Text Representations
Yitong Li, Timothy Baldwin and Trevor Cohn 25

HotFlip: White-Box Adversarial Examples for Text Classification
Javid Ebrahimi, Anyi Rao, Daniel Lowd and Dejing Dou 31

Domain Adapted Word Embeddings for Improved Sentiment Classification
Prathusha K Sarma, Yingyu Liang and Bill Sethares 37

Active learning for deep semantic parsing
Long Duong, Hadi Afshar, Dominique Estival, Glen Pink, Philip Cohen and Mark Johnson 43

Learning Thematic Similarity Metric from Article Sections Using Triplet Networks
Liat Ein Dor, Yosi Mass, Alon Halfon, Elad Venezian, Ilya Shnayderman, Ranit Aharonov and Noam Slonim 49

Unsupervised Semantic Frame Induction using Triclustering
Dmitry Ustalov, Alexander Panchenko, Andrey Kutuzov, Chris Biemann and Simone Paolo Ponzetto 55

Identification of Alias Links among Participants in Narratives
Sangameshwar Patil, Sachin Pawar, Swapnil Hingmire, Girish Palshikar, Vasudeva Varma and Pushpak Bhattacharyya 63

Named Entity Recognition With Parallel Recurrent Neural Networks
Andrej Zukov Gregoric, Yoram Bachrach and Sam Coope 69

Type-Sensitive Knowledge Base Inference Without Explicit Type Supervision
Prachi Jain, Pankaj Kumar, Mausam - and Soumen Chakrabarti 75

A Walk-based Model on Entity Graphs for Relation Extraction
Fenia Christopoulou, Makoto Miwa and Sophia Ananiadou 81

Ranking-Based Automatic Seed Selection and Noise Reduction for Weakly Supervised Relation Extraction
Van-Thuy Phi, Joan Santoso, Masashi Shimbo and Yuji Matsumoto 89

Automatic Extraction of Commonsense LocatedNear Knowledge
Frank F. Xu, Bill Yuchen Lin and Kenny Zhu 96

Neural Coreference Resolution with Deep Biaffine Attention by Joint Mention Detection and Mention Clustering
Rui Zhang, Cicero Nogueira dos Santos, Michihiro Yasunaga, Bing Xiang and Dragomir Radev 102

Fully Statistical Neural Belief Tracking
Nikola Mrkšić and Ivan Vulić . . . 108

Some of Them Can be Guessed! Exploring the Effect of Linguistic Context in Predicting Quantifiers
Sandro Pezzelle, Shane Steinert-Threlkeld, Raffaella Bernardi and Jakub Szymanik . . . 114

A Named Entity Recognition Shootout for German
Martin Riedl and Sebastian Padó . . . 120

A dataset for identifying actionable feedback in collaborative software development
Benjamin S Meyers, Nuthan Munaiah, Emily Prud'hommeaux, Andrew Meneely, Josephine Wolff, Cecilia Ovesdotter Alm and Pradeep Murukannaiah . . . 126

SNAG: Spoken Narratives and Gaze Dataset
Preethi Vaidyanathan, Emily T. Prud'hommeaux, Jeff B. Pelz and Cecilia O. Alm . . . 132

Analogical Reasoning on Chinese Morphological and Semantic Relations
Shen Li, Zhe Zhao, Renfen Hu, Wensi Li, Tao Liu and Xiaoyong Du . . . 138

Construction of a Chinese Corpus for the Analysis of the Emotionality of Metaphorical Expressions
Dongyu Zhang, Hongfei Lin, Liang Yang, Shaowu Zhang and BO XU . . . 144

Automatic Article Commenting: the Task and Dataset
Lianhui Qin, Lemao Liu, Wei Bi, Yan Wang, Xiaojiang Liu, Zhiting Hu, Hai Zhao and Shuming Shi . . . 151

Improved Evaluation Framework for Complex Plagiarism Detection
Anton Belyy, Marina Dubova and Dmitry Nekrasov . . . 157

Global Encoding for Abstractive Summarization
Junyang Lin, Xu SUN, Shuming Ma and Qi Su . . . 163

A Language Model based Evaluator for Sentence Compression
Yang Zhao, Zhiyuan Luo and Akiko Aizawa . . . 170

Identifying and Understanding User Reactions to Deceptive and Trusted Social News Sources
Maria Glenski, Tim Weninger and Svitlana Volkova . . . 176

Content-based Popularity Prediction of Online Petitions Using a Deep Regression Model
Shivashankar Subramanian, Timothy Baldwin and Trevor Cohn . . . 182

Fighting Offensive Language on Social Media with Unsupervised Text Style Transfer
Cicero Nogueira dos Santos, Igor Melnyk and Inkit Padhi . . . 189

Diachronic degradation of language models: Insights from social media
Kokil Jaidka, Niyati Chhaya and Lyle Ungar . . . 195

Task-oriented Dialogue System for Automatic Diagnosis
Zhongyu Wei, Qianlong Liu, Baolin Peng, Huaixiao Tou, Ting Chen, Xuanjing Huang, Kam-Fai Wong and Xiangying Dai . . . 201

Transfer Learning for Context-Aware Question Matching in Information-seeking Conversations in E-commerce
Minghui Qiu, Liu Yang, Feng Ji, Wei Zhou, Jun Huang, Haiqing Chen, Bruce Croft and Wei Lin 208

A Multi-task Approach to Learning Multilingual Representations
Karan Singla, Dogan Can and Shrikanth Narayanan 214

Characterizing Departures from Linearity in Word Translation
Ndapa Nakashole and Raphael Flauger 221

Filtering and Mining Parallel Data in a Joint Multilingual Space
Holger Schwenk 228

Hybrid semi-Markov CRF for Neural Sequence Labeling
Zhixiu Ye and Zhen-Hua Ling 235

A Study of the Importance of External Knowledge in the Named Entity Recognition Task
Dominic Seyler, Tatiana Dembelova, Luciano Del Corro, Johannes Hoffart and Gerhard Weikum 241

Improving Topic Quality by Promoting Named Entities in Topic Modeling
Katsiaryna Krasnashchok and Salim Jouili 247

Obligation and Prohibition Extraction Using Hierarchical RNNs
Ilias Chalkidis, Ion Androutsopoulos and Achilleas Michos 254

Paper Abstract Writing through Editing Mechanism
Qingyun Wang, Zhihao Zhou, Lifu Huang, Spencer Whitehead, Boliang Zhang, Heng Ji and Kevin Knight 260

Conditional Generators of Words Definitions
Artyom Gadetsky, Ilya Yakubovskiy and Dmitry Vetrov 266

CNN for Text-Based Multiple Choice Question Answering
Akshay Chaturvedi, Onkar Pandit and Utpal Garain 272

Narrative Modeling with Memory Chains and Semantic Supervision
Fei Liu, Trevor Cohn and Timothy Baldwin 278

Injecting Relational Structural Representation in Neural Networks for Question Similarity
Antonio Uva, Daniele Bonadiman and Alessandro Moschitti 285

A Simple and Effective Approach to Coverage-Aware Neural Machine Translation
Yanyang Li, Tong Xiao, Yinqiao Li, Qiang Wang, Changming Xu and Jingbo Zhu 292

Dynamic Sentence Sampling for Efficient Training of Neural Machine Translation
Rui Wang, Masao Utiyama and Eiichiro Sumita 298

Compositional Representation of Morphologically-Rich Input for Neural Machine Translation
Duygu Ataman and Marcello Federico 305

Extreme Adaptation for Personalized Neural Machine Translation
Paul Michel and Graham Neubig 312

Multi-representation ensembles and delayed SGD updates improve syntax-based NMT
Danielle Saunders, Felix Stahlberg, Adrià de Gispert and Bill Byrne 319

Learning from Chunk-based Feedback in Neural Machine Translation
Pavel Petrushkov, Shahram Khadivi and Evgeny Matusov 326

Bag-of-Words as Target for Neural Machine Translation
Shuming Ma, Xu SUN, Yizhong Wang and Junyang Lin 332

Improving Beam Search by Removing Monotonic Constraint for Neural Machine Translation
Raphael Shu and Hideki Nakayama 339

Leveraging distributed representations and lexico-syntactic fixedness for token-level prediction of the idiomaticity of English verb-noun combinations
Milton King and Paul Cook 345

Using pseudo-senses for improving the extraction of synonyms from word embeddings
Olivier Ferret 351

Hearst Patterns Revisited: Automatic Hypernym Detection from Large Text Corpora
Stephen Roller, Douwe Kiela and Maximilian Nickel 358

Jointly Predicting Predicates and Arguments in Neural Semantic Role Labeling
Luheng He, Kenton Lee, Omer Levy and Luke Zettlemoyer 364

Sparse and Constrained Attention for Neural Machine Translation
Chaitanya Malaviya, Pedro Ferreira and André F. T. Martins 370

Neural Hidden Markov Model for Machine Translation
Weiyue Wang, Derui Zhu, Tamer Alkhouli, Zixuan Gan and Hermann Ney 377

Bleaching Text: Abstract Features for Cross-lingual Gender Prediction
Rob van der Goot, Nikola Ljubešić, Ian Matroos, Malvina Nissim and Barbara Plank 383

Orthographic Features for Bilingual Lexicon Induction
Parker Riley and Daniel Gildea 390

Neural Cross-Lingual Coreference Resolution And Its Application To Entity Linking
Gourab Kundu, Avi Sil, Radu Florian and Wael Hamza 395

Judicious Selection of Training Data in Assisting Language for Multilingual Neural NER
Rudra Murthy, Anoop Kunchukuttan and Pushpak Bhattacharyya 401

Neural Open Information Extraction
Lei Cui, Furu Wei and Ming Zhou 407

Document Embedding Enhanced Event Detection with Hierarchical and Supervised Attention
Yue Zhao, Xiaolong Jin, Yuanzhuo Wang and Xueqi Cheng 414

Learning Matching Models with Weak Supervision for Response Selection in Retrieval-based Chatbots
Yu Wu, wei wu, Zhoujun Li and Ming Zhou 420

Improving Slot Filling in Spoken Language Understanding with Joint Pointer and Attention
Lin Zhao and Zhe Feng 426

Large-Scale Multi-Domain Belief Tracking with Knowledge Sharing
Osman Ramadan, Paweł Budzianowski and Milica Gasic 432

Modeling discourse cohesion for discourse parsing via memory network
Yanyan Jia, Yuan Ye, Yansong Feng, Yuxuan Lai, Rui Yan and Dongyan Zhao 438

SciDTB: Discourse Dependency TreeBank for Scientific Abstracts
An Yang and Sujian Li 444

Predicting accuracy on large datasets from smaller pilot data
Mark Johnson, Peter Anderson, Mark Dras and Mark Steedman 450

The Influence of Context on Sentence Acceptability Judgements
Jean-Philippe Bernardy, Shalom Lappin and Jey Han Lau 456

Do Neural Network Cross-Modal Mappings Really Bridge Modalities?
Guillem Collell and Marie-Francine Moens 462

Policy Gradient as a Proxy for Dynamic Oracles in Constituency Parsing
Daniel Fried and Dan Klein 469

Linear-time Constituency Parsing with RNNs and Dynamic Programming
Juneki Hong and Liang Huang 477

Simpler but More Accurate Semantic Dependency Parsing
Timothy Dozat and Christopher D. Manning 484

Simplified Abugidas
Chenchen Ding, Masao Utiyama and Eiichiro Sumita 491

Automatic Academic Paper Rating Based on Modularized Hierarchical Convolutional Neural Network
Pengcheng Yang, Xu SUN, Wei Li and Shuming Ma 496

Automated essay scoring with string kernels and word embeddings
Madalina Cozma, Andrei Butnaru and Radu Tudor Ionescu 503

Party Matters: Enhancing Legislative Embeddings with Author Attributes for Vote Prediction
Anastassia Kornilova, Daniel Argyle and Vladimir Eidelman 510

Dynamic and Static Topic Model for Analyzing Time-Series Document Collections
Rem Hida, Naoya Takeishi, Takehisa Yairi and Koichi Hori 516

PhraseCTM: Correlated Topic Modeling on Phrases within Markov Random Fields
Weijing Huang 521

A Document Descriptor using Covariance of Word Vectors
Marwan Torki 527

Learning with Structured Representations for Negation Scope Extraction
Hao Li and Wei Lu 533

End-Task Oriented Textual Entailment via Deep Explorations of Inter-Sentence Interactions
Wenpeng Yin, Dan Roth and Hinrich Schütze 540

Sense-Aware Neural Models for Pun Location in Texts
Yitao Cai, Yin Li and Xiaojun Wan 546

A Rank-Based Similarity Metric for Word Embeddings
Enrico Santus, Hongmin Wang, Emmanuele Chersoni and Yue Zhang 552

Addressing Noise in Multidialectal Word Embeddings
Alexander Erdmann, Nasser Zalmout and Nizar Habash 558

GNEG: Graph-Based Negative Sampling for word2vec
Zheng Zhang and Pierre Zweigenbaum 566

Unsupervised Learning of Style-sensitive Word Vectors
Reina Akama, Kento Watanabe, Sho Yokoi, Sosuke Kobayashi and Kentaro Inui 572

Exploiting Document Knowledge for Aspect-level Sentiment Classification
Ruidan He, Wee Sun Lee, Hwee Tou Ng and Daniel Dahlmeier 579

Modeling Sentiment Association in Discourse for Humor Recognition
Lizhen Liu, Donghai Zhang and Wei Song 586

Double Embeddings and CNN-based Sequence Labeling for Aspect Extraction
Hu Xu, Bing Liu, Lei Shu and Philip S. Yu 592

Will it Blend? Blending Weak and Strong Labeled Data in a Neural Network for Argumentation Mining
Eyal Shnarch, Carlos Alzate, Lena Dankin, Martin Gleize, Yufang Hou, Leshem Choshen, Ranit Aharonov and Noam Slonim 599

Investigating Audio, Video, and Text Fusion Methods for End-to-End Automatic Personality Prediction
Onno Kampman, Elham J. Barezi, Dario Bertero and Pascale Fung 606

An Empirical Study of Building a Strong Baseline for Constituency Parsing
Jun Suzuki, Sho Takase, Hidetaka Kamigaito, Makoto Morishita and Masaaki Nagata 612

Parser Training with Heterogeneous Treebanks
Sara Stymne, Miryam de Lhoneux, Aaron Smith and Joakim Nivre 619

Generalized chart constraints for efficient PCFG and TAG parsing
Stefan Grünewald, Sophie Henning and Alexander Koller 626

Exploring Semantic Properties of Sentence Embeddings
Xunjie Zhu, Tingfeng Li and Gerard de Melo 632

Scoring Lexical Entailment with a Supervised Directional Similarity Network
Marek Rei, Daniela Gerz and Ivan Vulić 638

Extracting Commonsense Properties from Embeddings with Limited Human Guidance
Yiben Yang, Larry Birnbaum, Ji-Ping Wang and Doug Downey 644

Breaking NLI Systems with Sentences that Require Simple Lexical Inferences
Max Glockner, Vered Shwartz and Yoav Goldberg 650

Adaptive Knowledge Sharing in Multi-Task Learning: Improving Low-Resource Neural Machine Translation
Poorya Zaremoodi, Wray Buntine and Gholamreza Haffari 656

Automatic Estimation of Simultaneous Interpreter Performance
Craig Stewart, Nikolai Vogler, Junjie Hu, Jordan Boyd-Graber and Graham Neubig 662

Polyglot Semantic Role Labeling
Phoebe Mulcaire, Swabha Swayamdipta and Noah A. Smith 667

Learning Cross-lingual Distributed Logical Representations for Semantic Parsing
Yanyan Zou and Wei Lu 673

Enhancing Drug-Drug Interaction Extraction from Texts by Molecular Structure Information
Masaki Asada, Makoto Miwa and Yutaka Sasaki 680

diaNED: Time-Aware Named Entity Disambiguation for Diachronic Corpora
Prabal Agarwal, Jannik Strötgen, Luciano Del Corro, Johannes Hoffart and Gerhard Weikum . 686

Examining Temporality in Document Classification
Xiaolei Huang and Michael J. Paul 694

Personalized Language Model for Query Auto-Completion
Aaron Jaech and Mari Ostendorf 700

Personalized Review Generation By Expanding Phrases and Attending on Aspect-Aware Representations
Jianmo Ni and Julian McAuley 706

Learning Simplifications for Specific Target Audiences
Carolina Scarton and Lucia Specia 712

Split and Rephrase: Better Evaluation and Stronger Baselines
Roee Aharoni and Yoav Goldberg 719

Autoencoder as Assistant Supervisor: Improving Text Representation for Chinese Social Media Text Summarization
Shuming Ma, Xu SUN, Junyang Lin and Houfeng WANG 725

Long Short-Term Memory as a Dynamically Computed Element-wise Weighted Sum
Omer Levy, Kenton Lee, Nicholas FitzGerald and Luke Zettlemoyer 732

On the Practical Computational Power of Finite Precision RNNs for Language Recognition
Gail Weiss, Yoav Goldberg and Eran Yahav 740

A Co-Matching Model for Multi-choice Reading Comprehension
Shuohang Wang, Mo Yu, Jing Jiang and Shiyu Chang 746

Tackling the Story Ending Biases in The Story Cloze Test
Rishi Sharma, James Allen, Omid Bakhshandeh and Nasrin Mostafazadeh 752

A Multi-sentiment-resource Enhanced Attention Network for Sentiment Classification
Zeyang Lei, Yujiu Yang, Min Yang and Yi Liu 758

Pretraining Sentiment Classifiers with Unlabeled Dialog Data
Toru Shimizu, Nobuyuki Shimizu and Hayato Kobayashi 764

Disambiguating False-Alarm Hashtag Usages in Tweets for Irony Detection
Hen-Hsen Huang, Chiao-Chen Chen and Hsin-Hsi Chen 771

Cross-Target Stance Classification with Self-Attention Networks
Chang Xu, Cecile Paris, Surya Nepal and Ross Sparks 778

Know What You Don't Know: Unanswerable Questions for SQuAD
Pranav Rajpurkar, Robin Jia and Percy Liang 784

'Lighter' Can Still Be Dark: Modeling Comparative Color Descriptions
Olivia Winn and Smaranda Muresan 790

Conference Program

Monday, July 16, 2018

9:00–10:00 ***Welcome Session & Presidential Address***

10:00–10:30 ***Coffee Break***

12:30–14:00 ***Poster Session 1A: Machine Learning***

Continuous Learning in a Hierarchical Multiscale Neural Network
Thomas Wolf, Julien Chaumond and Clement Delangue

Restricted Recurrent Neural Tensor Networks: Exploiting Word Frequency and Compositionality
Alexandre Salle and Aline Villavicencio

Deep RNNs Encode Soft Hierarchical Syntax
Terra Blevins, Omer Levy and Luke Zettlemoyer

Word Error Rate Estimation for Speech Recognition: e-WER
Ahmed Ali and Steve Renals

Towards Robust and Privacy-preserving Text Representations
Yitong Li, Timothy Baldwin and Trevor Cohn

HotFlip: White-Box Adversarial Examples for Text Classification
Javid Ebrahimi, Anyi Rao, Daniel Lowd and Dejing Dou

Domain Adapted Word Embeddings for Improved Sentiment Classification
Prathusha K Sarma, Yingyu Liang and Bill Sethares

12:30–14:00 ***Poster Session 1B: Semantics***

Active learning for deep semantic parsing
Long Duong, Hadi Afshar, Dominique Estival, Glen Pink, Philip Cohen and Mark Johnson

Learning Thematic Similarity Metric from Article Sections Using Triplet Networks
Liat Ein Dor, Yosi Mass, Alon Halfon, Elad Venezian, Ilya Shnayderman, Ranit Aharonov and Noam Slonim

Unsupervised Semantic Frame Induction using Triclustering
Dmitry Ustalov, Alexander Panchenko, Andrey Kutuzov, Chris Biemann and Simone Paolo Ponzetto

12:30–14:00 ***Poster Session 1C: Information Extraction, Text Mining***

Identification of Alias Links among Participants in Narratives
Sangameshwar Patil, Sachin Pawar, Swapnil Hingmire, Girish Palshikar, Vasudeva Varma and Pushpak Bhattacharyya

Named Entity Recognition With Parallel Recurrent Neural Networks
Andrej Zukov Gregoric, Yoram Bachrach and Sam Coope

Type-Sensitive Knowledge Base Inference Without Explicit Type Supervision
Prachi Jain, Pankaj Kumar, Mausam - and Soumen Chakrabarti

A Walk-based Model on Entity Graphs for Relation Extraction
Fenia Christopoulou, Makoto Miwa and Sophia Ananiadou

Ranking-Based Automatic Seed Selection and Noise Reduction for Weakly Supervised Relation Extraction
Van-Thuy Phi, Joan Santoso, Masashi Shimbo and Yuji Matsumoto

Automatic Extraction of Commonsense LocatedNear Knowledge
Frank F. Xu, Bill Yuchen Lin and Kenny Zhu

12:30–14:00 ***Poster Session 1D: Discourse, Linguistics, Cognitive Modeling***

Neural Coreference Resolution with Deep Biaffine Attention by Joint Mention Detection and Mention Clustering
Rui Zhang, Cicero Nogueira dos Santos, Michihiro Yasunaga, Bing Xiang and Dragomir Radev

Fully Statistical Neural Belief Tracking
Nikola Mrkšić and Ivan Vulić

Some of Them Can be Guessed! Exploring the Effect of Linguistic Context in Predicting Quantifiers
Sandro Pezzelle, Shane Steinert-Threlkeld, Raffaella Bernardi and Jakub Szymanik

12:30–14:00 ***Poster Session 1E: Resources and Evaluation***

A Named Entity Recognition Shootout for German
Martin Riedl and Sebastian Padó

A dataset for identifying actionable feedback in collaborative software development
Benjamin S Meyers, Nuthan Munaiah, Emily Prud'hommeaux, Andrew Meneely, Josephine Wolff, Cecilia Ovesdotter Alm and Pradeep Murukannaiah

SNAG: Spoken Narratives and Gaze Dataset
Preethi Vaidyanathan, Emily T. Prud'hommeaux, Jeff B. Pelz and Cecilia O. Alm

Analogical Reasoning on Chinese Morphological and Semantic Relations
Shen Li, Zhe Zhao, Renfen Hu, Wensi Li, Tao Liu and Xiaoyong Du

Construction of a Chinese Corpus for the Analysis of the Emotionality of Metaphorical Expressions
Dongyu Zhang, Hongfei Lin, Liang Yang, Shaowu Zhang and BO XU

Automatic Article Commenting: the Task and Dataset
Lianhui Qin, Lemao Liu, Wei Bi, Yan Wang, Xiaojiang Liu, Zhiting Hu, Hai Zhao and Shuming Shi

Improved Evaluation Framework for Complex Plagiarism Detection
Anton Belyy, Marina Dubova and Dmitry Nekrasov

12:30–14:00 ***Poster Session 1F: Summarization, Social Media***

Global Encoding for Abstractive Summarization
Junyang Lin, Xu SUN, Shuming Ma and Qi Su

A Language Model based Evaluator for Sentence Compression
Yang Zhao, Zhiyuan Luo and Akiko Aizawa

Monday, July 16, 2018 (continued)

Identifying and Understanding User Reactions to Deceptive and Trusted Social News Sources
Maria Glenski, Tim Weninger and Svitlana Volkova

Content-based Popularity Prediction of Online Petitions Using a Deep Regression Model
Shivashankar Subramanian, Timothy Baldwin and Trevor Cohn

Fighting Offensive Language on Social Media with Unsupervised Text Style Transfer
Cicero Nogueira dos Santos, Igor Melnyk and Inkit Padhi

Diachronic degradation of language models: Insights from social media
Kokil Jaidka, Niyati Chhaya and Lyle Ungar

Tuesday, July 17, 2018

9:00–10:00 ***Invited Talk 1: Carolyn Penstein Rosé***

10:00–10:30 ***Coffee Break***

12:30–14:00 ***Poster Session 2B: Dialog and Interactive Systems, Multilinguality***

Task-oriented Dialogue System for Automatic Diagnosis
Zhongyu Wei, Qianlong Liu, Baolin Peng, Huaixiao Tou, Ting Chen, Xuanjing Huang, Kam-Fai Wong and Xiangying Dai

Transfer Learning for Context-Aware Question Matching in Information-seeking Conversations in E-commerce
Minghui Qiu, Liu Yang, Feng Ji, Wei Zhou, Jun Huang, Haiqing Chen, Bruce Croft and Wei Lin

A Multi-task Approach to Learning Multilingual Representations
Karan Singla, Dogan Can and Shrikanth Narayanan

Characterizing Departures from Linearity in Word Translation
Ndapa Nakashole and Raphael Flauger

Filtering and Mining Parallel Data in a Joint Multilingual Space
Holger Schwenk

12:30–14:00 ***Poster Session 2C: Information Extraction, Text Mining***

Hybrid semi-Markov CRF for Neural Sequence Labeling
Zhixiu Ye and Zhen-Hua Ling

A Study of the Importance of External Knowledge in the Named Entity Recognition Task
Dominic Seyler, Tatiana Dembelova, Luciano Del Corro, Johannes Hoffart and Gerhard Weikum

Improving Topic Quality by Promoting Named Entities in Topic Modeling
Katsiaryna Krasnashchok and Salim Jouili

Obligation and Prohibition Extraction Using Hierarchical RNNs
Ilias Chalkidis, Ion Androutsopoulos and Achilleas Michos

12:30–14:00 ***Poster Session 2D: Generation***

Paper Abstract Writing through Editing Mechanism
Qingyun Wang, Zhihao Zhou, Lifu Huang, Spencer Whitehead, Boliang Zhang, Heng Ji and Kevin Knight

Conditional Generators of Words Definitions
Artyom Gadetsky, Ilya Yakubovskiy and Dmitry Vetrov

12:30–14:00 ***Poster Session 2E: Question Answering***

CNN for Text-Based Multiple Choice Question Answering
Akshay Chaturvedi, Onkar Pandit and Utpal Garain

Narrative Modeling with Memory Chains and Semantic Supervision
Fei Liu, Trevor Cohn and Timothy Baldwin

Injecting Relational Structural Representation in Neural Networks for Question Similarity
Antonio Uva, Daniele Bonadiman and Alessandro Moschitti

12:30–14:00 ***Poster Session 2F: Machine Translation***

A Simple and Effective Approach to Coverage-Aware Neural Machine Translation
Yanyang Li, Tong Xiao, Yinqiao Li, Qiang Wang, Changming Xu and Jingbo Zhu

Dynamic Sentence Sampling for Efficient Training of Neural Machine Translation
Rui Wang, Masao Utiyama and Eiichiro Sumita

Compositional Representation of Morphologically-Rich Input for Neural Machine Translation
Duygu Ataman and Marcello Federico

Extreme Adaptation for Personalized Neural Machine Translation
Paul Michel and Graham Neubig

Multi-representation ensembles and delayed SGD updates improve syntax-based NMT
Danielle Saunders, Felix Stahlberg, Adrià de Gispert and Bill Byrne

Learning from Chunk-based Feedback in Neural Machine Translation
Pavel Petrushkov, Shahram Khadivi and Evgeny Matusov

Bag-of-Words as Target for Neural Machine Translation
Shuming Ma, Xu SUN, Yizhong Wang and Junyang Lin

Improving Beam Search by Removing Monotonic Constraint for Neural Machine Translation
Raphael Shu and Hideki Nakayama

Session 5A: Semantics 1 (Short)

14:00–14:15 *Leveraging distributed representations and lexico-syntactic fixedness for token-level prediction of the idiomaticity of English verb-noun combinations*
Milton King and Paul Cook

14:15–14:30 *Using pseudo-senses for improving the extraction of synonyms from word embeddings*
Olivier Ferret

14:30–14:45 *Hearst Patterns Revisited: Automatic Hypernym Detection from Large Text Corpora*
Stephen Roller, Douwe Kiela and Maximilian Nickel

14:45–15:00 *Jointly Predicting Predicates and Arguments in Neural Semantic Role Labeling*
Luheng He, Kenton Lee, Omer Levy and Luke Zettlemoyer

Session 5B: Machine Translation, Multilinguality 1 (Short)

14:00–14:15 *Sparse and Constrained Attention for Neural Machine Translation*
Chaitanya Malaviya, Pedro Ferreira and André F. T. Martins

14:15–14:30 *Neural Hidden Markov Model for Machine Translation*
Weiyue Wang, Derui Zhu, Tamer Alkhouli, Zixuan Gan and Hermann Ney

14:30–14:45 *Bleaching Text: Abstract Features for Cross-lingual Gender Prediction*
Rob van der Goot, Nikola Ljubešić, Ian Matroos, Malvina Nissim and Barbara Plank

14:45–15:00 *Orthographic Features for Bilingual Lexicon Induction*
Parker Riley and Daniel Gildea

Session 5C: Information Extraction 1 (Short)

14:00–14:15 *Neural Cross-Lingual Coreference Resolution And Its Application To Entity Linking*
Gourab Kundu, Avi Sil, Radu Florian and Wael Hamza

14:15–14:30 *Judicious Selection of Training Data in Assisting Language for Multilingual Neural NER*
Rudra Murthy, Anoop Kunchukuttan and Pushpak Bhattacharyya

14:30–14:45 *Neural Open Information Extraction*
Lei Cui, Furu Wei and Ming Zhou

14:45–15:00 *Document Embedding Enhanced Event Detection with Hierarchical and Supervised Attention*
Yue Zhao, Xiaolong Jin, Yuanzhuo Wang and Xueqi Cheng

Session 5D: Dialog System, Discourse (Short)

14:00–14:15 *Learning Matching Models with Weak Supervision for Response Selection in Retrieval-based Chatbots*
Yu Wu, wei wu, Zhoujun Li and Ming Zhou

14:15–14:30 *Improving Slot Filling in Spoken Language Understanding with Joint Pointer and Attention*
Lin Zhao and Zhe Feng

14:30–14:45 *Large-Scale Multi-Domain Belief Tracking with Knowledge Sharing*
Osman Ramadan, Paweł Budzianowski and Milica Gasic

14:45–15:00 *Modeling discourse cohesion for discourse parsing via memory network*
Yanyan Jia, Yuan Ye, Yansong Feng, Yuxuan Lai, Rui Yan and Dongyan Zhao

Session 5E: Vision, Linguistics, Resource and Evaluation (Short)

14:00–14:15 *SciDTB: Discourse Dependency TreeBank for Scientific Abstracts*
An Yang and Sujian Li

14:15–14:30 *Predicting accuracy on large datasets from smaller pilot data*
Mark Johnson, Peter Anderson, Mark Dras and Mark Steedman

14:30–14:45 *The Influence of Context on Sentence Acceptability Judgements*
Jean-Philippe Bernardy, Shalom Lappin and Jey Han Lau

14:45–15:00 *Do Neural Network Cross-Modal Mappings Really Bridge Modalities?*
Guillem Collell and Marie-Francine Moens

Session 5F: Parsing, Morphology (Short)

14:00–14:15 *Policy Gradient as a Proxy for Dynamic Oracles in Constituency Parsing*
Daniel Fried and Dan Klein

14:15–14:30 *Linear-time Constituency Parsing with RNNs and Dynamic Programming*
Juneki Hong and Liang Huang

14:30–14:45 *Simpler but More Accurate Semantic Dependency Parsing*
Timothy Dozat and Christopher D. Manning

14:45–15:00 *Simplified Abugidas*
Chenchen Ding, Masao Utiyama and Eiichiro Sumita

15:00–15:30 ***Coffee Break***

17:20–18:50 ***ACL Business Meeting***

Tuesday, July 17, 2018 (continued)

19:30–22:30 ***Social Event***

Wednesday, July 18, 2018

9:00–10:00 ***Invited Talk 2: Anton van den Hengel***

10:00–10:30 ***Coffee Break***

12:30–14:00 ***Poster Session 3A: Student Research Workshop***

12:30–14:00 ***Poster Session 3B: Document Analysis***

Automatic Academic Paper Rating Based on Modularized Hierarchical Convolutional Neural Network
Pengcheng Yang, Xu SUN, Wei Li and Shuming Ma

Automated essay scoring with string kernels and word embeddings
Madalina Cozma, Andrei Butnaru and Radu Tudor Ionescu

Party Matters: Enhancing Legislative Embeddings with Author Attributes for Vote Prediction
Anastassia Kornilova, Daniel Argyle and Vladimir Eidelman

Dynamic and Static Topic Model for Analyzing Time-Series Document Collections
Rem Hida, Naoya Takeishi, Takehisa Yairi and Koichi Hori

PhraseCTM: Correlated Topic Modeling on Phrases within Markov Random Fields
Weijing Huang

A Document Descriptor using Covariance of Word Vectors
Marwan Torki

12:30–14:00 ***Poster Session 3C: Semantics***

Learning with Structured Representations for Negation Scope Extraction
Hao Li and Wei Lu

End-Task Oriented Textual Entailment via Deep Explorations of Inter-Sentence Interactions
Wenpeng Yin, Dan Roth and Hinrich Schütze

Sense-Aware Neural Models for Pun Location in Texts
Yitao Cai, Yin Li and Xiaojun Wan

A Rank-Based Similarity Metric for Word Embeddings
Enrico Santus, Hongmin Wang, Emmanuele Chersoni and Yue Zhang

Addressing Noise in Multidialectal Word Embeddings
Alexander Erdmann, Nasser Zalmout and Nizar Habash

GNEG: Graph-Based Negative Sampling for word2vec
Zheng Zhang and Pierre Zweigenbaum

Unsupervised Learning of Style-sensitive Word Vectors
Reina Akama, Kento Watanabe, Sho Yokoi, Sosuke Kobayashi and Kentaro Inui

12:30–14:00 ***Poster Session 3D: Sentiment Analysis and Argument Mining***

Exploiting Document Knowledge for Aspect-level Sentiment Classification
Ruidan He, Wee Sun Lee, Hwee Tou Ng and Daniel Dahlmeier

Modeling Sentiment Association in Discourse for Humor Recognition
Lizhen Liu, Donghai Zhang and Wei Song

Double Embeddings and CNN-based Sequence Labeling for Aspect Extraction
Hu Xu, Bing Liu, Lei Shu and Philip S. Yu

Will it Blend? Blending Weak and Strong Labeled Data in a Neural Network for Argumentation Mining
Eyal Shnarch, Carlos Alzate, Lena Dankin, Martin Gleize, Yufang Hou, Leshem Choshen, Ranit Aharonov and Noam Slonim

12:30–14:00 ***Poster Session 3E: Vision, Multimodal, Grounding, Speech***

Investigating Audio, Video, and Text Fusion Methods for End-to-End Automatic Personality Prediction
Onno Kampman, Elham J. Barezi, Dario Bertero and Pascale Fung

12:30–14:00 ***Poster Session 3F: Morphology, Tagging, Parsing***

An Empirical Study of Building a Strong Baseline for Constituency Parsing
Jun Suzuki, Sho Takase, Hidetaka Kamigaito, Makoto Morishita and Masaaki Nagata

Parser Training with Heterogeneous Treebanks
Sara Stymne, Miryam de Lhoneux, Aaron Smith and Joakim Nivre

Generalized chart constraints for efficient PCFG and TAG parsing
Stefan Grünewald, Sophie Henning and Alexander Koller

Session 8A: Semantics 2 (Short)

14:00–14:15 *Exploring Semantic Properties of Sentence Embeddings*
Xunjie Zhu, Tingfeng Li and Gerard de Melo

14:15–14:30 *Scoring Lexical Entailment with a Supervised Directional Similarity Network*
Marek Rei, Daniela Gerz and Ivan Vulić

14:30–14:45 *Extracting Commonsense Properties from Embeddings with Limited Human Guidance*
Yiben Yang, Larry Birnbaum, Ji-Ping Wang and Doug Downey

14:45–15:00 *Breaking NLI Systems with Sentences that Require Simple Lexical Inferences*
Max Glockner, Vered Shwartz and Yoav Goldberg

Session 8B: Machine Translation, Multilinguality 2 (Short)

14:00–14:15 *Adaptive Knowledge Sharing in Multi-Task Learning: Improving Low-Resource Neural Machine Translation*
Poorya Zaremoodi, Wray Buntine and Gholamreza Haffari

14:15–14:30 *Automatic Estimation of Simultaneous Interpreter Performance*
Craig Stewart, Nikolai Vogler, Junjie Hu, Jordan Boyd-Graber and Graham Neubig

14:30–14:45 *Polyglot Semantic Role Labeling*
Phoebe Mulcaire, Swabha Swayamdipta and Noah A. Smith

14:45–15:00 *Learning Cross-lingual Distributed Logical Representations for Semantic Parsing*
Yanyan Zou and Wei Lu

Session 8C: Information Extraction 2 (Short)

14:00–14:15 *Enhancing Drug-Drug Interaction Extraction from Texts by Molecular Structure Information*
Masaki Asada, Makoto Miwa and Yutaka Sasaki

14:15–14:30 *diaNED: Time-Aware Named Entity Disambiguation for Diachronic Corpora*
Prabal Agarwal, Jannik Strötgen, Luciano Del Corro, Johannes Hoffart and Gerhard Weikum

14:30–14:45 *Examining Temporality in Document Classification*
Xiaolei Huang and Michael J. Paul

14:45–15:00 *Personalized Language Model for Query Auto-Completion*
Aaron Jaech and Mari Ostendorf

Session 8D: Generation, Summarization (Short)

14:00–14:15 *Personalized Review Generation By Expanding Phrases and Attending on Aspect-Aware Representations*
Jianmo Ni and Julian McAuley

14:15–14:30 *Learning Simplifications for Specific Target Audiences*
Carolina Scarton and Lucia Specia

14:30–14:45 *Split and Rephrase: Better Evaluation and Stronger Baselines*
Roee Aharoni and Yoav Goldberg

14:45–15:00 *Autoencoder as Assistant Supervisor: Improving Text Representation for Chinese Social Media Text Summarization*
Shuming Ma, Xu SUN, Junyang Lin and Houfeng WANG

Session 8E: Machine Learning, Question Answering (Short)

14:00–14:15 *Long Short-Term Memory as a Dynamically Computed Element-wise Weighted Sum*
Omer Levy, Kenton Lee, Nicholas FitzGerald and Luke Zettlemoyer

14:15–14:30 *On the Practical Computational Power of Finite Precision RNNs for Language Recognition*
Gail Weiss, Yoav Goldberg and Eran Yahav

14:30–14:45 *A Co-Matching Model for Multi-choice Reading Comprehension*
Shuohang Wang, Mo Yu, Jing Jiang and Shiyu Chang

14:45–15:00 *Tackling the Story Ending Biases in The Story Cloze Test*
Rishi Sharma, James Allen, Omid Bakhshandeh and Nasrin Mostafazadeh

Session 8F: Sentiment (Short)

14:00–14:15 *A Multi-sentiment-resource Enhanced Attention Network for Sentiment Classification*
Zeyang Lei, Yujiu Yang, Min Yang and Yi Liu

14:15–14:30 *Pretraining Sentiment Classifiers with Unlabeled Dialog Data*
Toru Shimizu, Nobuyuki Shimizu and Hayato Kobayashi

14:30–14:45 *Disambiguating False-Alarm Hashtag Usages in Tweets for Irony Detection*
Hen-Hsen Huang, Chiao-Chen Chen and Hsin-Hsi Chen

14:45–15:00 *Cross-Target Stance Classification with Self-Attention Networks*
Chang Xu, Cecile Paris, Surya Nepal and Ross Sparks

15:00–15:30 ***Coffee Break***

Session 9A: Best Paper Session

15:30–15:45 *Know What You Don't Know: Unanswerable Questions for SQuAD*
Pranav Rajpurkar, Robin Jia and Percy Liang

15:45–16:00 *'Lighter' Can Still Be Dark: Modeling Comparative Color Descriptions*
Olivia Winn and Smaranda Muresan

17:15–17:30 ***Short Break***

17:30–18:30 ***Lifetime Achievement Award***

18:30–18:45 ***Closing Session***