ACL-IJCNLP 2021

The 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing

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

August 1 - 6, 2021

Diamond Sponsors

Bloomberg
Engineering

FACEBOOK AI

Google Research

Platinum Sponsors

amazon | science

ByteDance

Megagon Labs

Microsoft

Bai du 百度

DeepMind

Tencent 腾讯

Gold Sponsors

IBM

Alibaba Group
阿里巴巴集团

Silver Sponsors

Bronze Sponsors

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 978-1-954085-53-4 (Volume 2)

Message from the General Chair

I am delighted to welcome you to the Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP 2021)!

We are very grateful for many people. Fei Xia, Wenjie Li (Maggie) and Roberto Navigli, as the Program Chairs, have admirably guided the work of main conference organization and management. The calm and experienced Priscilla Rasmussen has done a lot of work for the signing of contracts with virtual platform company, Underline.io, calculation of registration fees and managing the entire registration process, and communication with sponsors and exhibitors. The amazing 68-person organizing committee, who all contributed so much to make the conference successful: Local Chairs (Priscilla Rasmussen, Thepchai Supnithi, Thanaruk Theeramunkong), Tutorial Chairs (David Chiang, Min Zhang), Workshop Chairs (Kentaro Inui, Michael Strube), Student Research Workshop Chairs (Jad Kabbara, Haitao Lin, Amandalynne Paullada, Jannis Vamvas), Faculty Advisors to the Student Workshop (Jing Jiang, Rico Sennrich, Derek F. Wong, Nianwen Xue), Audio-Video Chairs (Suchathit Boonnag, Rachasak Somyanonthanakul), Conference Handbook Chair (Krit Kosawat), Demonstration Chairs (Heng Ji, Jong C. Park, Rui Xia), Diversity and Inclusion Committee Chairs (Academic Inclusion Chairs: Avirup Sil, Kayathi Chandu, Lifu Huang, Sara Rosenthal; Accessibility Chairs: Minlie Huang, Vivian Chen, Yang Feng; Financial Access Chairs: Martha Yifiru Tachbelie, Alexis Palmer, Ignatius Eziani, Manuel Mager, Nafise Moosavi; Socio-cultural Inclusion Chairs: Alvin Grissom, Xanda Schofield, Pedro Rodriguez), Local Sponsorship Chairs (Rachada Kongkrachantra, Jing Li, Kobkrit Viriyayudhakorn, Zhongyu Wei), Publications Chairs (Yuki Arase, Jing-Shin Chang, Yvette Graham), Publicity Chair (Kai-Fam Wong), Remote Presentation Chairs (Zhongjun He, Nattapol Kritsuthikul, Yadollah Yaghoobzadeh), Sustainability Chairs (Angeliki Lazaridou, Qi Zhang), Reviewer Mentoring Committe Chairs (Jing Huang, Antoine Bosselut, Christophe Gravier), Website and Conference App Chairs (Chutima Beokhaimook, Witchaworn Mankhong), Student Volunteer Coordinator (Dongyan Zhao), Ethic Advisory Committee Chairs (Malvina Nissim, Min-Yen Kan, Xanda Schofield), Social Media Committee Chairs (Luciana Benotti, Lidong Bing, Zhumin Chen, Rachele Sprugnoli, Mark Seligman), Virtual Infrastructure Committee Advisor (Hao Fang), Virtual Infrastructure Committee Chairs (Wei Lu, Krich Nasingkun, Alessandro Raganato, Shaonan Wang, Liang-Chih Yu, Jianfei Yu).

The success of the conference is inseparable from the guidance and advice of ACL Officers. Special thanks to Hinrich Schütze, Rada Mihalcea, David Yarowsky, Shiqi Zhao and Yusuke Miyao. The general chair of NAACL'2021, Dr. Kristina Toutanova provided me much advice based on her experience with NAACL'2021 organization. The friendly cooperation with NAACL'2021 and EACL'2021 workshop chairs and tutorial chairs is very important and is of mutual benefit to each other.

Sponsors and exhibitors are always very important. We are extremely grateful to all sponsors for their continuing support to help our conferences be very successful.

And finally, I would like to thank every one of you for making ACL-IJCNLP'2021 such a success by submitting papers and demos, serving as area chairs and reviewers, session chairs, invited speakers and volunteers, and by joining us in virtual environment.

Welcome and hope you all enjoy the conference!

Chengqing Zong

ACL-IJCNLP'2021 General Chair
June 28, 2021

Message from the Program Chairs

Welcome to the Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP 2021)! ACL-IJCNLP 2021 has a special historical significance as this is a particularly exciting period: our field has grown dramatically, NLP research is now ubiquitous in products, and the barrier to entry to the field has lowered considerably. Like ACL 2020, ACL-IJCNLP 2021 is held as a virtual conference again due to the worldwide COVID-19 pandemic which has lasted for more than one year. We are very grateful for all of your support and contributions during this difficult time, which make this conference special and memorable.

Abstract and Full-paper Submissions: To synchronize with NAACL 2021, our conference's review cycle was about three weeks shorter than that of ACL 2020. To make the short review cycle work, we introduced an abstract submission step, which required authors to submit an abstract by Jan 25, 2021, one week before the full-paper submission deadline on Feb 1, 2021. This extra step gave NAACL 2021 authors an opportunity to withdraw their papers from NAACL 2021 and submit them to ACL-IJCNLP 2021 based on feedback from NAACL 2021's rebuttal period. In total, we received $4,266$ abstract submissions and $3,350$ full paper submissions.

Tracks: The submissions were assigned to one of 24 topic tracks. The tracks were similar to those used in previous conferences but with a few changes:

1. Based on the number of submissions in previous conferences, we followed NAACL 2021 and combined two tracks ("Semantics: Sentence Level" and "Semantics: Textual Inference and Other Areas of Semantics") into a single track "Semantics: Sentence-level Semantics, Textual Inference and Other areas".

2. To accommodate a wider and more diverse area, we changed the name of the "Computational Social Science and Social Media" track to "Computational Social Science and Cultural Analytics".

3. Following NAACL 2021, we combined the "Theory and Formalism" with the "Cognitive Modeling and Psycholinguistics" areas into "Linguistic theories, Cognitive Modeling and Psycholinguistics". This track is designed to encourage submissions targeted to theoretical underpinning of NLP models which had little/small presence in the past ACL conferences.

4. We introduced a new theme: "NLP for Social Good (NLP4SG)". The application of AI to provide positive social impact has been an important topic in recent years. However, to date, this has not been a topic highlighted at the ACL main conference. This track is designed to invite submissions that can provide insights for the ACL-IJCNLP community on the topic of NLP for Social Good as well as how NLP could potentially cause or be used for social harm.

Program Committee: To meet the reviewer demands of a growing conference without compromising review quality, we started recruiting Senior Area Chairs (SACs) and Area Chairs in early fall 2020. Then we initiated a large-scale reviewer recruiting effort in Nov 2020. We compiled a big list of reviewers from previous conferences, and sent out invitations to more than $9,000$ candidates, asking the ones who were willing to serve to fill out a Microsoft reviewer form. About $4,400$ of the invitees filled out the form. We then worked with SACs and ACs in selecting reviewers and assigning them to appropriate tracks. The whole process of forming the program committee was very complex and took several months to complete and, at the end, we have the largest ever program committee in the history of ACL with 60 SACs, 323 ACs, and $3,685$ primary reviewers.

Reviewer Mentoring Program: Review quality is crucial for the success of a large conference like ACL. Thus, it is of central importance for our community to mentor and train new reviewers in order to keep up with the community's rapid growth, both in terms of submissions and in terms of new members of the community. Therefore, this year we continued the reviewer mentoring program launched with ACL 2020. Ultimately, the goal of this program is to provide long-needed mentoring to new reviewers. We formed a reviewer mentoring committee. Collaborating with them and SACs, we paired Area Chairs (mentors) with first-time ACL reviewers (mentees, often Ph.D. students or junior researchers) during the paper assignment process. The mentees would submit reviews early for the mentors to provide feedback, and the mentees would then revise their reviews based on the feedback. In addition, to help all the reviewers, the reviewer mentoring committee created several videos including the presentation of the mentoring program, a general reviewing tutorial, information about the review form used for this conference, and guidelines on how to consider ethical issues reproducibility in submissions.

Ethical review: The ethical impact and potential applications of our research should be an important consideration for research design, and as artificial intelligence is becoming more mainstream, these issues are increasingly pertinent. To address the potential ethical concerns, we allowed authors to include a broader impact statement or other discussion of ethics in the paper, which does not count towards the page limit. We formed an Ethics Advisory Committee (EAC) with three co-chairs and 57 EAC reviewers. During the review process, reviewers were asked to flag submissions with ethical concerns. The EAC then reviewed all the flagged papers to determine whether the papers should be (a) accepted as is, (b) conditional accepted (with specification of what must be addressed in the camera-ready version in order for the condition to be removed), or (c) rejected on ethical grounds (with explanation of the reject decision). Based on their decisions and the SAC recommendations, we made the accept/reject decisions and sent out acceptance notifications on May 6, 2021. The whole process was explained in a blog posted to the conference website on May 10, 2021. The camera-ready version of the conditionally accepted papers were checked by the EAC again. The EAC informed us that all these papers had made satisfactory revisions and thus we removed the condition on the papers. The whole process was very complex, and we were grateful for the hard work of the EAC and the authors.

Acceptance to Main Conference: After the review process, out of the $3,350$ full submissions, 710 papers (139 short, 571 long) were accepted into the main conference. With an acceptance rate of 21.2%, ACL-IJCNLP 2021 continues to be a highly competitive conference. Based on the nominations from Senior Area Chairs, we selected 28 papers as candidates for the Best Paper awards. We formed a Best Paper Award Committee, who went over all the candidates and selected one best paper, one best theme paper and six outstanding papers.

Findings: To continue the success of Findings at EMNLP 2020, we decided to introduce Findings papers, which are papers that are not accepted for publication in the main conference, but nonetheless have been assessed by the Program Committee as solid work with sufficient substance, quality and novelty. Out of the $3,350$ full submissions, 493 papers were invited to be included in the Findings. Thirty-six papers declined the offer, leading to 457 papers (118 short and 339 long) to be published in the Findings of ACL: ACL-IJCNLP 2021. To increase the visibility of the Finding papers, the authors of such papers can choose to make a 3-minute video to be included in the virtual conference site. Our workshop chairs also helped to pair Findings papers with ACL-IJCNLP 2021 workshops for the possibility of Finding papers to be presented at those workshops.

TACL and CL papers: Continuing the tradition, ACL-IJCNLP 2021 will also feature 27 papers that were published at Transactions of the Association for Computational Linguistics (TACL) and 5 papers from the journal of Computational Linguistics (CL).

Keynote speakers: Another highlight of our program is three exciting keynote talks, given by Prof. Christopher Potts (Stanford University), Prof. Helen Meng (Chinese University of Hong Kong), and Dr. Alejandrina Cristia (École Normale Supérieure).

ACL-IJCNLP 2021 would not be possible without the support from the community. There are many people we would like to thank for their significant contributions! First, we would like to thank our Program Committee, whose names are included in the Program Committee pages in the proceedings:

- Our awesome 60 **Senior Area Chairs** who were instrumental in every aspect of the review process (e.g., AC/reviewer selection, paper assignment, recommendation for paper acceptance, nomination of best papers and outstanding reviewers). For many of them, the scope of their responsibilities was equivalent to chairing a small conference. The 323 **Area Chairs** who led paper review discussions, wrote meta-reviews, and mentored junior reviewers. In addition, they have helped SACs with reviewer selection, paper assignment, and many other tasks.
- Our 3,685 **primary reviewers** and 262 **secondary reviewers** who provided valuable feedback to the authors. Special thanks to those who stepped in at the last minute to serve as emergency reviewers.

Second, we would like to thank many ACL-IJCNLP 2021 committees that we have worked with, including:

- Our **Best Paper Selection Committee**, Bonnie Webber, Tim Baldwin and Ellen Riloff for selecting best papers and outstanding papers under a very tight schedule.
- Our **Ethics Advisory Committee**, chaired by Min-Yen Kan, Malvina Nissim, and Xanda Schofield, for their hard work to ensure that all the accepted papers have addressed the ethical issues appropriately.
- Our **Reviewer Mentoring Committee**, Jing Huang, Antoine Bosselut and Christophe Gravier, for preparing mentoring materials and providing review support to first-time reviewers.
- Our **Publication Co-Chairs**, Jing-Shin Chang, Yuki Arase, and Yvette Graham, for their tremendous effort in making the proceedings.
- Our **Social Media Committee**, chaired by Luciana Benotti, Lidong Bing, Zhumin Chen, Mark Seligman, and Rachele Sprugnoli, for effectively communicating conference updates and other urgent information on social media platforms.
- The **Workshop Chairs**, Kentaro Inui and Michael Strube, for connecting Findings paper authors with individual workshops for possible presentations.
- The **Website & Conference App Chairs**, Chutima Beokhaimook and Witchaworn Mankhong, for making numerous updates to the conference website.

Third, we would like to thank many people who help us with various software used for the conference:

- Rich Gerber at **SoftConf**, who is always quick to respond to our emails and resolve difficulties we encountered with the START system.
- C. M. Downey at the University of Washington, who helped us to extend and run the external paper assignment system developed by Graham Neubig.
- Caterina Lacerra and Rocco Tripodi at the Sapienza University of Rome, who helped us in the creation of internal spreadsheets and processing scripts.
- The whole **Underline** team (Sol Rosenberg, Fun Lee, Jordan Young, Daniel Luise) who created a virtual site for the conference.

As Program chairs, we were in charge of several dozen tasks and many of them were new to us. We would not be able to complete the tasks without the advice from our colleagues, including:

- Our **General Chair** Chengqing Zong, who has been very supportive throughout the whole process, giving us the flexibility to innovate while providing an invaluable sounding board.
- The **Program Co-Chairs of ACL 2020**, Joyce Chai, Natalie Schluter and Joel Tetreault; the **Program Co-Chairs of EMNLP 2020**, Trevor Cohn, Yulan He and Yang Liu; the **Program Co-Chairs of NAACL 2021**, Anna Rumshisky, Luke Zettlemoyer and Dilek Hakkani-Tur, for generously sharing their experience, documentation, and advice in organizing ACL conferences and for answering our questions, often on short notice.
- **ACL Executive Committee**, especially Rada Mihalcea (the **ACL President**) and Hinrich Schütze (the **ACL Past President**), Shiqi Zhao (**Secretary**), Priscilla Rasmussen (**Business Manager**), Nitin Madnani (**Member-at-large**), to help us sort through various issues.
- **TACL Editors-in-Chief** Ani Nenkova and Brian Roark, **TACL Editorial Assistant** Cindy Robinson, and **CL Editor-in-Chief** Hwee Tou Ng for coordinating TACL and CL presentations at the conference.

We would also like to thank all the authors ($8,757$ in total) who submitted their work to the conference. Although we were only able to accept a small percentage of the submissions, your hard work makes this conference exciting and our community strong.

Last, but not least, we thank our students, interns, postdocs, colleagues, and families for being so understanding and supportive when we were swamped by countless conference deadlines and meetings.

Our deepest gratitude is to all of you. We hope you will enjoy the conference.

Fei Xia, University of Washington
Wenjie Li, The Hong Kong Polytechnic University
Roberto Navigli, Sapienza University of Rome

ACL-IJCNLP 2021 Program Committee Co-Chairs

Organizing Committee

General Chair:

Chengqing Zong, Institute of Automation, Chinese Academy of Sciences

Program Committee Co-Chairs:

Wenjie Li, The Hong Kong Polytechnic University
Roberto Navigli, Sapienza University of Rome
Fei Xia, University of Washington

Local Organization Committee Co-Chairs:

Priscilla Rasmussen, Association for Computational Linguistics (ACL)
Thepchai Supnithi, National Electronics and Computer Technology Center (NECTEC)
Thanaruk Theeramunkong, The Artificial Intelligence Association of Thailand and Sirindhorn International Institute of Technology (SIIT), Thammasat University

Tutorial Chairs:

David Chiang, University of Notre Dame
Min Zhang, Soochow University

Workshop Chairs:

Kentaro Inui, Tohoku University
Michael Strube, GmbH Heidelberg

Student Research Workshop Chairs:

Jad Kabbara, McGill University and the Montreal Institute for Learning Algorithms (MILA)
Haitao Lin, Institute of Automation, Chinese Academy of Sciences
Amandalynne Paullada, University of Washington
Jannis Vamvas, Universität Zürich

Faculty Advisors to the Student Research Workshop:

Jing Jiang, Singapore Management University
Rico Sennrich, University of Edinburgh
Derek F. Wong, University of Macau
Nianwen Xue, Brandeis University

Demo Chairs:

Heng Ji, University of Illinois at Urbana-Champaign
Jong C. Park, Korea Advanced Institute of Science and Technology
Rui Xia, Nanjing University of Science and Technology

Publications Chairs:

Yuki Arase, Osaka University
Jing-Shin Chang, National Chi-Nan University
Yvette Graham, Trinity College Dublin

Publicity Chair:

Kai-Fam Wong, The Chinese University of Hong Kong

Sponsorship Co-Chairs:

Rachada Kongkrachantra, Thammasat University
Jing Li, The Hong Kong Polytechnic University
Kobkrit Viriyayudhakorn, iApp Technology Co., Ltd.
Zhongyu Wei, Fudan University

Diversity & Inclusion (D&I) Chairs:

Sub-Committee of Childcare ++ Accessibility:

Leader: Minlie Huang, Tsinghua University
Member: Vivian Chen, National Taiwan University
Member: Yang Feng, Institute of Computing Technology, Chinese Academy of Sciences

Sub-Committee of Academic Inclusion:

Leader: Avirup Sil, IBM
Member: Kayathi Chandu, Carnegie Mellon University
Member: Lifu Huang, Virginia Tech
Member: Sara Rosenthal, IBM Research AI

Sub-Committee of Financial Access:

Leader: Alexis Palmer, University of Colorado Boulder
Leader: Martha Yifiru Tachbelie, Addis Ababa University
Member: Ignatius Eziani, Lancaster University
Member: Manuel Mager, University of Stuttgart
Member: Nafise Moosavi, TU Darmstadt

Sub-Committee of Socio-cultural Inclusion:

Leader: Alvin Grissom, Haverford College
Member: Pedro Rodriguez, University of Maryland, College Park
Member: Xanda Schofield, Harvey Mudd College

Ethics Advisory Committee (EAC):

Min-Yen Kan, National University of Singapore
Malvina Nissim, University of Groningen
Xanda Schofield, Harvey Mudd College

Sustainability Chairs:

Angeliki Lazaridou, DeepMind
Qi Zhang, Fudan University

Audio-Video Chairs:

Suchathit Boonnag, AIAT
Rachasak Somyanonthanakul, Rangsit University

Remote Presentation Chairs:

Zhongjun He, Baidu Co.
Nattapol Kritsuthikul, NECTEC, NSTDA
Yadollah Yaghoobzadeh, University of Tehran

Virtual Infrastructure Committee (VIC):

Advisor:

Hao Fang, Microsoft Semantic Machines

Co-Chairs:

Wei Lu, Singapore University of Technology and Design
Krich Nasingkun, National Electronics and Computer Technology Center
Alessandro Raganato, University of Helsinki
Shaonan Wang, Institute of Automation, Chinese Academy of Sciences
Jianfei Yu, Nanjing University of Science and Technology
Liang-Chih Yu, Yuan Ze University

Reviewer Mentoring Committee Chairs:

Antoine Bosselut, Stanford University
Christophe Gravier, Universite de Saint-Etienne/Lyon
Jing Huang, JD AI Research

Social Media Committee Co-Chairs:

Luciana Benotti, National University of Cordoba
Lidong Bing, DAMO Academy, Alibaba Group
Zhumin Chen, Shandong University
Mark Seligman, Speechmorphing, Inc.
Rachele Sprugnoli, Università Cattolica del Sacro Cuore

Handbook Chair:

Krit Kosawat, NECTEC, NSTDA

Website & Conference App Chairs:

Chutima Beokhaimook, Rangsit University
Witchaworn Mankhong, NECTEC, NSTDA

Student Volunteer Coordinator:

Dongyan Zhao, Peking University

Technical Support:

C. M. Downey, University of Washington
Caterina Lacerra, Sapienza University of Rome
Rocco Tripodi, University of Bologna
Naoki Okada, Osaka University
Masato Yoshinaka, Osaka University

Program Committee

Program Chairs:

Fei Xia, University of Washington
Wenjie Li, The Hong Kong Polytechnic University
Roberto Navigli, Sapienza University of Rome

Senior Area Chairs and Area Chairs:

(Senior area chairs are in bold.)

Computational Social Science and Cultural Analytics:

David Jurgens, **Paolo Rosso**, **Noah Smith**, Timothy Baldwin, Cristina Bosco, Antoine Doucet, Manuel Montes, Alice Oh, Simone Paolo Ponzetto, Sara Rosenthal, Thamar Solorio, Chenhao Tan, Oren Tsur, Leo Wanner, Diyi Yang

Dialogue and Interactive Systems:

Minlie Huang, **Gina-Anne Levow**, **Jason Williams**, Luciana Benotti, Y-Lan Boureau, Yunbo Cao, Asli Celikyilmaz, Yun-Nung Chen, Heriberto Cuayahuitl, Emily Dinan, Maryam Fazel-Zarandi, Kallirroi Georgila, Alborz Geramifard, Matthew Henderson, Ryuichiro Higashinaka, Kentaro Inui, Casey Kennington, Kazunori Komatani, Sungjin Lee, Rebecca J. Passonneau, Giuseppe Riccardi, Ethan Selfridge, Gabriel Skantze, Ruihua Song, David Traum, Stefan Ultes, Tsung-Hsien Wen, Wei Wu, Rui Yan, Kai Yu, Zhou Yu, Wei-Nan Zhang

Discourse and Pragmatics:

Vera Demberg, **Michael Strube**, Jacob Andreas, Chloé Braud, Sadao Kurohashi, Sharid Loáiciga, Nafise Sadat Moosavi

Ethics in NLP:

Ryan Georgi, **Dirk Hovy**, Kai-Wei Chang, Karën Fort, Alvin Grissom II, Margot Mieskes, Vinodkumar Prabhakaran

Information Extraction:

Yunyao Li, **Hoifung Poon**, **Dan Roth**, Alan Akbik, Christos Christodoulopoulos, Leon Derczynski, Jacob Eisenstein, Luheng He, Parisa Kordjamshidi, Mausam, Stephen Mayhew, Makoto Miwa, Lluís Màrquez, Thien Huu Nguyen, Qiang Ning, Haoruo Peng, Roi Reichart, Xiang Ren, Alan Ritter, Alla Rozovskaya, Kevin Small, Yangqiu Song, Vivek Srikumar, Shashank Srivastava, Elior Sulem, Chen-Tse Tsai, William Yang Wang, Wenpeng Yin

Information Retrieval and Text Mining:

Hang Li, **Gabriella Pasi**, Sophia Ananiadou, Mohand Boughanem, Nicola Ferro, Nazli Goharian, Seung-won Hwang, Jing Jiang, Jian-Yun Nie, Raffaele Perego, Suzan Verberne, Quan Wang, Gerard de Melo

Interpretability and Analysis of Models for NLP:

Anna Rogers, **Sameer Singh**, **Xu Sun**, Afra Alishahi, Jasmijn Bastings, Yonatan Belinkov, Danushka Bollegala, Grzegorz Chrupala, Bhuwan Dhingra, Sebastian Gehrmann, Wei Lu, Marco Tulio Ribeiro, Anders Søgaard, Ian Tenney, Byron Wallace

Language Generation:

Michel Galley, **Michael White**, **Jiajun Zhang**, Anya Belz, Giuseppe Carenini, Nina Dethlefs, Mark Dras, Michael Elhadad, Angela Fan, Mary Ellen Foster, Liang Huang, Shujian Huang, Yangfeng Ji, Ioannis Konstas, Sujian Li, Lili Mou, Myle Ott, Ankur P. Parikh, Owen Rambow, Stephen Roller, Advaith Siddharthan, Jinsong Su, Duyu Tang, Zhiguo Wang, Yizhe Zhang

Language Grounding to Vision, Robotics and Beyond:

Mohit Bansal, **Hannaneh Hajishirzi**, Yoav Artzi, Joyce Chai, Nancy Chen, Desmond Elliott, Chuang Gan, Zhe Gan, Ani Kembhavi, Radu Soricut, Jesse Thomason, Mark Yatskar

Linguistic Theories, Cognitive Modeling and Psycholinguistics:

Roger Levy, **James Pustejovsky**, Alexander Clark, Afsaneh Fazly, Naomi Feldman, Tal Linzen, Kyle Mahowald

Machine Learning for NLP:

Ming-Wei Chang, **Kevin Duh**, **Tie-Yan Liu**, **Sebastian Ruder**, Waleed Ammar, Yuki Arase, Niranjan Balasubramanian, Loïc Barrault, Daniel Beck, Yonatan Bisk, Wray Buntine, Allyson Ettinger, Matthias Gallé, Marjan Ghazvininejad, Mohit Iyyer, Shafiq Joty, Sarvnaz Karimi, Hideto Kazawa, Junyi Jessy Li, Zachary Lipton, Yang Liu, Zhiyuan Liu, Daichi Mochihashi, Naoaki Okazaki, Jong Park, Nanyun Peng, Tao Qin, Sujith Ravi, Mrinmaya Sachan, Natalie Schluter, Pontus Stenetorp, Karl Stratos, Jun Suzuki, Lu Wang, Dani Yogatama, Koichiro Yoshino

Machine Translation and Multilinguality:

Philipp Koehn, **Qun Liu**, **François Yvon**, Wilker Aziz, Marine Carpuat, Boxing Chen, Colin Cherry, Marta R. Costa-jussà, Marcello Federico, Yang Feng, Andrew Finch, Mark Fishel, Jiatao Gu, Gholamreza Haffari, Zhongjun He, Mu Li, Liangyou Li, Junhui Li, Kenton Murray, Jan Niehues, Maja Popović, Artem Sokolov, Sara Stymne, Longyue Wang, Tong Xiao

Multidisciplinary and Area Chair COI:

Iryna Gurevych, **Andreas Vlachos**, Dan Goldwasser, Omer Levy, Diarmuid Ó Séaghdha

NLP Applications:

Jimmy Lin, **Vincent Ng**, **Min Zhang**, Beata Beigman Klebanov, Luigi Di Caro, Sanda Harabagiu, Mamoru Komachi, Juntao Li, Jing Li, Yang Liu, David Mimno, Preslav Nakov, Tristan Naumann, Emily Prud'hommeaux, David Smith, Lijun Wu, Jingjing Xu, Min Yang, Jing Yuan, Marcos Zampieri, Wei Zhang

Phonology, Morphology and Word Segmentation:

Yan Song, **Nianwen Xue**, Ryan Cotterell, Xipeng Qiu, Attapol Rutherford

Question Answering:

Jennifer Chu-Carroll, **Alessandro Moschitti**, **Furu Wei**, Roberto Basili, Jordan Boyd-Graber, Weiwei Cheng, Eunsol Choi, Danilo Croce, Li Dong, Yansong Feng, Simone Filice, Radu Florian, Zornitsa Kozareva, Jing Liu, Ramesh Nallapati, Cicero Nogueira dos Santos, Siddharth Patwardhan, Matthias Petri, Oleg Rokhlenko, Minjoon Seo, Avi Sil, Luca Soldaini, Anh Tuan Luu, Olga Uryupina, Thuy Vu, Fabio Massimo Zanzotto

Resources and Evaluation:

Samuel Bowman, **Nancy Ide**, Johan Bos, Tommaso Caselli, Jesse Dodge, Kyle Gorman, Daniel Khashabi, Jin-Dong Kim, Jonathan K. Kummerfeld, John P. McCrae, Joakim Nivre, Massimo Poesio, Saku Sugawara, Adina Williams

Semantics: Lexical:

Mona Diab, **Mohammad Taher Pilehvar**, Marianna Apidianaki, Eduardo Blanco, Jose Camacho-Collados, Manaal Faruqui, Tommaso Pasini, German Rigau, Vered Shwartz, Veselin Stoyanov, Aline Villavicencio, Ivan Vulić, Yadollah Yaghoobzadeh, Yi Zhang

Semantics: Sentence-level Semantics, Textual Inference and Other areas:

Doug Downey, **Raymond Mooney**, **Xiaodan Zhu**, Iz Beltagy, Jonathan Berant, Chandra Bhagavatula, Chris Callison-Burch, Danqi Chen, Greg Durrett, Katrin Erk, Francis Ferraro, Daniel Gildea, Edward Grefenstette, Robin Jia, Douwe Kiela, Mike Lewis, Quan Liu, Christopher Potts, Rachel Rudinger, Mo Yu

Sentiment Analysis, Stylistic Analysis, and Argument Mining:

Bing Liu, **Rada Mihalcea**, **Saif Mohammad**, Alexandra Balahur, Lidong Bing, Julian Brooke, Anna Feldman, Yulan He, Lun-Wei Ku, John Lawrence, Maria Liakata, Smaranda Muresan, Soujanya Poria, Bing Qin, Serena Villata, Xiaojun Wan

Speech and Multimodality:

Haizhou Li, **Florian Metze**, Julia Hockenmaier, Preethi Jyothi, Herman Kamper, Dorothea Kolossa, Hung-yi Lee, Lei Xie

Summarization:

Mirella Lapata, **Horacio Saggion**, Florian Boudin, Jackie Chi Kit Cheung, Katja Filippova, Peter Liu, Fei Liu, Shashi Narayan, Manabu Okumura, Laura Perez-Beltrachini, Maxime Peyrard, Laura Plaza, Xingxing Zhang

Syntax: Tagging, Chunking and Parsing:

Slav Petrov, **Emily Pitler**, Carlos Gómez-Rodríguez, Daniel Hershcovich, Marco Kuhlmann, Yuji Matsumoto, Reut Tsarfaty, Yannick Versley, Yue Zhang, Miryam de Lhoneux

Theme:

Jinho Choi, **Joel Tetreault**, Tim Althoff, Isabelle Augenstein, Steven Bethard, Courtney Napoles, Brendan O'Connor, Yulia Tsvetkov, Rob Voigt

Best Paper Selection Committee:

Timothy Baldwin, Ellen Riloff, Bonnie Webber

Primary Reviewers:

Asma Ben Abacha, Jade Abbott, Ahmed Abdelali, Muhammad Abdul-Mageed, Anne Abeille, Omri Abend, Ahmed AbuRa'ed, Abdalghani Abujabal, Pablo Accuosto, Manoj Acharya, Judit Ács, Heike Adel, Somak Aditya, Stergos Afantenos, Haithem Afli, Sachin Agarwal, Sanchit Agarwal, Shubham Agarwal, Sumeet Agarwal, Rodrigo Agerri, Karan Aggarwal, Piush Aggarwal, Manex Agirrezabal, Željko Agić, Ameeta Agrawal, Priyanka Agrawal, Sweta Agrawal, Gustavo Aguilar, Roee Aharoni, Wasi Ahmad, Natalie Ahn, Lars Ahrenberg, Aman Ahuja, Chaitanya Ahuja, Mohammad Ailannejadi, Akiko Aizawa, Reina Akama, Mohammad Akbari, Alan Akbik, Ahmet Aker, Farhad Akhbardeh, Md. Shad Akhtar, Syed Sarfaraz Akhtar, Adewale Akinfaderin, Nader Akoury, Arjun Akula, Hend Al-Khalifa, Rami Al-Rfou, Nora Al-Twairesh, Fahad AlGhamdi, Firoj Alam, Mehwish Alam, Chris Alberti, Laura Alonso Alemany, Nikolaos Aletras, Jan Alexandersson, Georgios Alexandridis, Mark Alfano, Raquel G. Alhama, Tariq Alhindi, Hamed Alhoori, Malihe Alikhani, Ilseyar Alimova, Afra Alishahi, Tamer Alkhouli, Emily Allaway, Carl Allen, Khalid Alnajjar, Héctor Martínez Alonso, Miguel A. Alonso, Emily Alsentzer, Milad Alshomary, Christoph Alt, Malik Altakrori, Sophia Althammer, Tim Althoff, Tanel Alumäe, Sandra Aluísio, Fernando Alva-Manchego, David Alvarez-Melis, Rami Aly, Marcelo Amancio, Bharat Ram Ambati, Maxime Amblard, Enrique Amigo, Aida Amini, Massih R Amini, Prithviraj Ammanabrolu, Waleed Ammar, Aixiu An, Bo An, Guozhen An, Jisun An, Ashish Anand, Sophia Ananiadou, Raviteja Anantha, Antonios Anastasopoulos, Mark Anderson, Jacob Andreas, Nicholas Andrews, Anietie Andy, Gabor Angeli, Stefanos Angelidis, Luis Espinosa Anke, Diego Antognini, Jean-Yves Antoine, Kaveri Anuranjana, Xiang Ao, Marianna Apidianaki, Emilia Apostolova, Jun Araki, Rahul Aralikatte, Eiji Aramaki, Yuki Arase, Mozhdeh Ariannezhad, Naveen Arivazhagan, Jacob Arkin, Stéphane Aroca-Ouellette, Kushal Arora, Simran Arora, Leila Arras, Ekaterina Artemova, Mikel Artetxe, Philip Arthur, Yoav Artzi, Kristjan Arumae, Ehsaneddin Asgari, Nabiha Asghar, Elliott Ash, Arian Askari, Zhenisbek Assylbekov, Ramón Fernandez Astudillo, Duygu Ataman, Pepa Atanasova, Awais Athar, Giuseppe Attardi, Isabelle Augenstein, Tal August, Eleftherios Avramidis, Ai Ti Aw, Parul Awasthy, Hosein Azarbonyad, Erfan Sadeqi Azer, Wilker Aziz,

Nastaran Babanejad, Rohit Babbar, Bogdan Babych, Nguyen Bach, Ebrahim Bagheri, Parnia Bahar, Ashutosh Baheti, Fan Bai, He Bai, Yu Bai, Yushi Bai, JinYeong Bak, Collin Baker, Vidhisha Balachandran, Alexandra Balahur, Mithun Balakrishna, Anusha Balakrishnan, Oana Balalau, Niranjan Balasubramanian, Ivana Balažević, Ioana Baldini, Timothy Baldwin, Kalika Bali, Miguel Ballesteros, Ramy Baly, Juan Banda, Sivaji Bandyopadhyay, Siddhartha Banerjee, Jeesoo Bang, Seojin Bang, Hritik Bansal, Mohit Bansal, Sameer Bansal, Trapit Bansal, Forrest Sheng Bao, Junwei Bao, Siqi Bao, Yu Bao, Ankur Bapna, Roy Bar-Haim, Mohamad Hardyman Barawi, Edoardo Barba, Adrien Barbaresi, Samuel Barham, Ken Barker, Gianni Barlacchi, Jeremy Barnes, Antonio Valerio Miceli Barone, Loïc Barrault, Valentin Barriere, Alberto Barrón-Cedeño, Max Bartolo, Marco Basaldella, Pierpaolo Basile, Roberto Basili, Ali Basirat, Jasmijn Bastings, Jordi Atserias Batalla, Lisa Bauer, Timo Baumann, William Baumgartner, Susana Bautista, Rachel Bawden, Kathy Baxter, Ian Beaver, Frederic Bechet, Daniel Beck, Lee Becker, Steven Bedrick, Dorothee Beermann, Lisa Beinborn, Ahmad Beirami, Giannis Bekoulis, Núria Bel, Yonatan Belinkov, Eric Bell, Jerome Bellegarda, Meriem Beloucif, Iz Beltagy, Anya Belz, Eyal Ben-David, Luca Benedetto, Luciana Benotti, Adrian Benton, Jonathan Berant, Alexandre Berard, Klaus Berberich, Gábor Berend, Leon

Bergen, Maria Berger, Sabine Bergler, Toms Bergmanis, Rafael Berlanga, Delphine Bernhard, Dario Bertero, Robert Berwick, Laurent Besacier, Steven Bethard, Michele Bevilacqua, Rahul Bhagat, Chandra Bhagavatula, Rasika Bhalerao, Rishabh Bhardwaj, Aditya Bhargava, Archna Bhatia, Parminder Bhatia, Sumit Bhatia, Gantavya Bhatt, Suvrat Bhooshan, Rajarshi Bhowmik, Bin Bi, Wei Bi, Federico Bianchi, Przemyslaw Biecek, Ann Bies, Laura Biester, Yi Bin, Lidong Bing, Alexandra Birch, Steven Bird, Arianna Bisazza, Yonatan Bisk, Johannes Bjerva, Henrik Björklund, Philippe Blache, Eduardo Blanco, Nate Blaylock, Terra Blevins, Rexhina Blloshmi, Su Lin Blodgett, Jelke Bloem, Michael Bloodgood, Théodore Bluche, Valts Blukis, Victoria Bobicev, Praveen Kumar Bodigutla, Ben Bogin, Danushka Bollegala, Valeriia Bolotova-Baranova, Rishi Bommasani, Daniele Bonadiman, Claire Bonial, Francesca Bonin, Ludovico Boratto, Georgeta Bordea, Claudia Borg, Johan Bos, Antal van den Bosch, Cristina Bosco, Antoine Bosselut, Robert Bossy, Nadjet Bouayad-Agha, Florian Boudin, Mohand Boughanem, Gosse Bouma, Zied Bouraoui, Y-Lan Boureau, Samuel R. Bowman, Jordan Boyd-Graber, Johan Boye, Faeze Brahman, António Branco, Jamie Brandon, Kianté Brantley, Pavel Braslavski, Chloé Braud, Felipe Bravo-Marquez, Arthur Bražinskas, Jonathan Brennan, Chris Brew, Thomas Brochhagen, Chris Brockett, Julian Brooke, Samuel Broscheit, Thomas Brovelli (Meyer), Caroline Brun, Dominique Brunato, Luna De Bruyne, Tomáš Brychcín, Yi Bu, Paweł Budzianowski, Sven Buechel, Alberto Bugarín-Diz, Michael Bugert, Trung Bui, Paul Buitelaar, Harry Bunt, Wray Buntine, Greg Burnham, Jill Burstein, Hendrik Buschmeier, Jan Buys, Joan Byamugisha, Bill Byrne, Benjamin Börschinger,

Marco Antonio Sobrevilla Cabezudo, Elena Cabrio, Avi Caciularu, Samuel Cahyawijaya, Deng Cai, Han Cai, Hengyi Cai, Jon Z. Cai, Yi Cai, Andrew Caines, Ruken Cakici, Agostina Calabrese, Iacer Calixto, Chris Callison-Burch, Jesus Calvillo, Jose Camacho-Collados, Erik Cambria, Oana-Maria Camburu, Giovanni Campagna, Leonardo Campillos-Llanos, Niccolò Campolungo, Jon Ander Campos, Ricardo Campos, Burcu Can, Marie Candito, Erion Çano, Guihong Cao, Jiannong Cao, Qingqing Cao, Qingxing Cao, Yanan Cao, Yixin Cao, Yu Cao, Yuan Cao, Yunbo Cao, Ziqiang Cao, Annalina Caputo, Cornelia Caragea, Doina Caragea, Dallas Card, Giuseppe Carenini, Vicente Ivan Sanchez Carmona, Luigi Di Caro, Marine Carpuat, Lucien Carroll, Paula Carvalho, Francisco Casacuberta, Iñigo Casanueva, Helena Caseli, Tommaso Caselli, Vittorio Castelli, Giuseppe Castellucci, Richard Eckart de Castilho, Sheila Castilho, Chundra Cathcart, Andrew Cattle, Paulo Cavalin, Asli Celikyilmaz, Alessandra Cervone, Suchet Chachra, Haixia Chai, Joyce Chai, Abhisek Chakrabarty, Tuhin Chakrabarty, Aishik Chakraborty, Tanmoy Chakraborty, Bharathi Raja Chakravarthi, Gaël de Chalendar, Yllias Chali, Ilias Chalkidis, Nathanael Chambers, Alvin Chan, Hou Pong Chan, Zhangming Chan, Senthil Chandramohan, Muthu Kumar Chandrasekaran, Tai Chang-You, Angel Chang, Baobao Chang, Ernie Chang, Haw-Shiuan Chang, Jing-Shin Chang, Kai-Wei Chang, Ming-Wei Chang, Serina Chang, Yu-Yun Chang, Yung-Chun Chang, Soravit Changpinyo, Guan-Lin Chao, Rajen Chatterjee, Akshay Chaturvedi, Iti Chaturvedi, Stergios Chatzikyriakidis, Aditi Chaudhary, Vishrav Chaudhary, Geeticka Chauhan, Kushal Chawla, Emmanuel Chemla, Bo Chen, Boxing Chen, Chacha Chen, Chung-Chi Chen, Danqi Chen, Daoyuan Chen, Guanyi Chen, Hanjie Chen, Hong-You Chen, Hongshen Chen, Hsin-Hsi Chen, Huimin Chen, Jiaao Chen, Jifan Chen, John Chen, Jun Chen, Kehai Chen, Kezhen Chen, Kuan-Yu Chen, Lei Chen, Lei Chen, Lin Chen, Long Chen, Long Chen, Lu Chen, Luoxin Chen, MeiHua Chen, Meng Chen, Mingda Chen, Muhao Chen, Nancy Chen, Penghe Chen, Qi Chen, Qian Chen, Qianglong Chen, Qingcai Chen, Sanxing Chen, Shizhe Chen, Sihao Chen, Tao Chen, Tongfei Chen, Wenhu Chen, Wenqing Chen, Xilun Chen, Xinchi Chen, Xiuyi Chen, Xiuying Chen, Yang Chen, Yen-Chun Chen, Yi-Chen Chen, Yihong Chen, Yu Chen, Yubo Chen, Yue Chen, Yun Chen, Yun-Nung Chen, Zhenfang Chen, Zhi Chen, Zhiyu Chen, Zhuang Chen, Zhumin Chen, Ziliang Chen, Hao Cheng, Liying Cheng, Lu Cheng, Pengxiang Cheng, Pengyu Cheng, Pu-Jen Cheng, Weiwei Cheng, Xingyi Cheng,

Yong Cheng, Yu Cheng, Vijil Chenthamarakshan, Joe Cheri, Colin Cherry, Emmanuele Chersoni, Jackie Chi Kit Cheung, Jonathan Chevelu, Ethan A. Chi, Zewen Chi, Christian Chiarcos, Jen-Tzung Chien, Hai Leong Chieu, Patricia Chiril, Luis Chiruzzo, Jaemin Cho, Sangwoo Cho, Won Ik Cho, Daejin Choi, Eunsol Choi, Jaesik Choi, Jihun Choi, Jinho D. Choi, Seungtaek Choi, Yejin Choi, Shamil Chollampatt, Jaegul Choo, Leshem Choshen, Prafulla Kumar Choubey, Monojit Choudhury, Khalid Choukri, Jishnu Ray Chowdhury, Koel Dutta Chowdhury, Md Faisal Mahbub Chowdhury, Christos Christodoulopoulos, Fenia Christopoulou, Grzegorz Chrupała, Jennifer Chu-Carroll, Chenhui Chu, Christopher Chu, Zewei Chu, Shun-Po Chuang, Aleksandr Chuklin, Hyung Won Chung, Jin-Woo Chung, Tagyoung Chung, Yi-Ling Chung, Kenneth Church, Abu Nowshed Chy, Manuel Ciosici, Alexander Clark, Christopher Clark, Elizabeth Clark, Kevin Clark, Stephen Clark, Aaron Clauset, Vincent Claveau, Orphee De Clercq, Éric de la Clergerie, Ann Clifton, Miruna-Adriana Clinciu, Maximin Coavoux, Oana Cocarascu, Anne Cocos, Arman Cohan, Edo Cohen-Karlik, Daniel Cohen, Kevin Cohen, Philip Cohen, Trevor Cohn, Marcus Collins, Costanza Conforti, Simone Conia, John Conroy, Danish Contractor, Paul Cook, Bonaventura Coppola, Anna Corazza, Francesco Corcoglioniti, Gonçalo Correia, Caio Corro, Luciano Del Corro, Marta R. Costa-jussà, Ryan Cotterell, Andreas van Cranenburgh, Josep Crego, Alina Maria Cristea, Dan Cristea, Alejandrina Cristia, Danilo Croce, Fabien Cromieres, Paul Crook, James Cross, Tim Van de Cruys, Berthold Crysmann, Montse Cuadros, Heriberto Cuayahuitl, Baiyun Cui, Lei Cui, Leyang Cui, Shaobo Cui, Yiming Cui, Aron Culotta, Iria da Cunha, Washington Cunha, Anna Currey, Tonya Custis,

Wisdom d'Almeida, Jennifer D'Souza, Raj Dabre, Deborah Dahl, Daniel Dahlmeier, Falcon Dai, Xiang Dai, Xinyu Dai, Zeyu Dai, Beatrice Daille, Daniel Dakota, Hercules Dalianis, Siddharth Dalmia, Fahim Dalvi, Marco Damonte, Sandipan Dandapat, Ankit Dangi, Dana Dannells, Abhishek Das, Dipanjan Das, Shouman Das, Pradeep Dasigi, Hal Daumé III, Aida Mostafazadeh Davani, Sam Davidson, Brian Davis, Forrest Davis, Joe Davison, Heidar Davoudi, Johannes Daxenberger, Steve DeNeefe, Jay DeYoung, Alok Debnath, Francien Dechesne, Thierry Declerck, Mathieu Dehouck, Herve Dejean, Sebastien Delecraz, Felice Dell'Orletta, Rodolfo Delmonte, Louise Deléger, Vera Demberg, David Demeter, Seniz Demir, Cagatay Demiralp, Dorottya Demszky, Lingjia Deng, Shumin Deng, Yang Deng, Yue Deng, Yuntian Deng, Zhi-Hong Deng, Pascal Denis, Michael Denkowski, Leon Derczynski, Tyler Derr, Shrey Desai, Nina Dethlefs, Tim Dettmers, Daniel Deutsch, Sunipa Dev, Murthy Devarakonda, Chris Develder, Ann Devitt, Joseph P. Dexter, Sameer Dharur, Paramveer Dhillon, Bhuwan Dhingra, Mona Diab, Shizhe Diao, Gaël Dias, Aniket Didolkar, Emily Dinan, Caiwen Ding, Chenchen Ding, Haibo Ding, Kaize Ding, Liang Ding, Ruixue Ding, Shuoyang Ding, Weicong Ding, Xiao Ding, Zixiang Ding, Liviu P. Dinu, Stefanie Dipper, Anne Dirkson, Nemanja Djuric, Dmitriy Dligach, Simon Dobnik, Jesse Dodge, Charles Dognin, Bill Dolan, Elham Dolatabadi, Miguel Domingo, Lucia Donatelli, Li Dong, MeiX-ing Dong, Ruihai Dong, Xin Dong, Xin Dong, Yue Dong, Longxu Dou, Zi-Yi Dou, Antoine Doucet, C. Downey, Doug Downey, A. Seza Doğruöz, Eduard Dragut, Mark Dras, Markus Dreyer, Rotem Dror, Aleksandr Drozd, Chunning Du, Jiaju Du, Jingfei Du, Jinhua Du, Lan Du, Mengnan Du, Pan Du, Wanyu Du, Yupei Du, Junwen Duan, Nan Duan, Xiangyu Duan, Kumar Dubey, Pablo Duboue, Philipp Dufter, Liam Dugan, Kevin Duh, Ambedkar Dukkipati, Jonathan Dunn, Yoann Dupont, Benjamin Van Durme, Esin Durmus, Nadir Durrani, Greg Durrett, Rory Duthie, Ritam Dutt, Pratik Dutta, Ondřej Dušek, Melody Dye, Chris Dyer, William Dyer, Marc Dymetman, Nouha Dziri,

Haihong E, Kurt Eberle, Sebastian Ebert, Javid Ebrahimi, Daniel Edmiston, Sergey Edunov, Aleksandra Edwards, Steffen Eger, Markus Egg, Koji Eguchi, Yo Ehara, Maud Ehrmann, Vladimir Eidelman, Liat Ein-Dor, Jacob Eisenstein, Asif Ekbal, Asif Ekbal, Wassim El-Hajj,

Yanai Elazar, Maha Elbayad, Heba Elfardy, Ahmed Elgohary, Michael Elhadad, Desmond Elliott, Micha Elsner, Ali Emami, Guy Emerson, Messina Enza, Aykut Erdem, Erkut Erdem, Alexander Erdmann, Akiko Eriguchi, Tomaž Erjavec, Katrin Erk, Liana Ermakova, Patrick Ernst, Marieke van Erp, Carla Parra Escartín, Ramy Eskander, Cristina España-Bonet, Diego Esteves, Dominique Estival, Thierry Etchegoyhen, Allyson Ettinger, Barbara Di Eugenio, Kilian Evang, Richard Evans,

Alexander Fabbri, Guglielmo Faggioli, Farzane Fakhrian, Agnieszka Falenska, Tobias Falke, Angela Fan, Chuang Fan, James Fan, Kai Fan, Yixing Fan, Hao Fang, Hui Fang, Licheng Fang, Rui Fang, Wei Fang, Yimai Fang, Farhood Farahnak, M. Amin Farajian, Oladimeji Farri, Mireia Farrús, Manaal Faruqui, Delia Irazú Hernández Farías, Jean-Philippe Fauconnier, Adam Faulkner, Benoit Favre, Maryam Fazel-Zarandi, Afsaneh Fazly, Amir Feder, Marcello Federico, Guy Feigenblat, Anna Feldman, Naomi Feldman, Sergey Feldman, Junlan Feng, Rui Feng, Shi Feng, Song Feng, Yang Feng, Yansong Feng, Zhangyin Feng, Paulo Fernandes, Daniel Fernández-González, Raquel Fernández, Elisa Ferracane, Francis Ferraro, Thiago Castro Ferreira, Olivier Ferret, Nicola Ferro, Elisabetta Fersini, Oluwaseyi Feyisetan, Anjalie Field, Alejandro Figueroa, Elena Filatova, Simone Filice, Katja Filippova, Andrew Finch, Catherine Finegan-Dollak, Orhan Firat, Mauajama Firdaus, Mark Fishel, Margaret Fleck, Lucie Flek, Dan Flickinger, Michael Flor, Radu Florian, Fabian Flöck, Marina Fomicheva, José A. R. Fonollosa, Erick Fonseca, Marco Aurelio Fonseca, Maxwell Forbes, Tommaso Fornaciari, Karën Fort, Paula Fortuna, George Foster, Mary Ellen Foster, Anette Frank, Robert Frank, Stella Frank, Thomas François, Alexander Fraser, Kathleen C. Fraser, Diego Frassinelli, Dayne Freitag, Markus Freitag, Lea Frermann, Daniel Fried, Annemarie Friedrich, Jason Fries, Guohong Fu, Liye Fu, Tsu-Jui Fu, Zhenxin Fu, Zihao Fu, Zuohui Fu, Akinori Fujino, Yoshinari Fujinuma, Atsushi Fujita, Fumiyo Fukumoto, Nancy Fulda, Adam Funk, Richard Futrell, Michael Färber, Hagen Fürstenau,

Matteo Gabburo, Saadia Gabriel, David Gaddy, Marco Gaido, Núria Gala, Andrea Galassi, Boris Galitsky, Michel Galley, Matthias Gallé, Pablo Gamallo, Michael Gamon, Chuang Gan, Leilei Gan, Yujian Gan, Zhe Gan, Kuzman Ganchev, Sudeep Gandhe, Balaji Ganesan, Devi Ganesan, Suryakanth V Gangashetty, Debasis Ganguly, Cuiyun Gao, Ge Gao, Hanning Gao, Jun Gao, Qiaozi Gao, Shen Gao, Tianyu Gao, Wei Gao, Xiang Gao, Yang Gao, Yang Gao, Yifan Gao, Yingbo Gao, Cristina Garbacea, Diego Garcia-Olano, Eva Martínez Garcia, Marcos Garcia, Matt Gardner, Sarthak Garg, Saurabh Garg, Siddhant Garg, Aparna Garimella, Ekaterina Garmash, Dan Garrette, Milica Gasic, Albert Gatt, Lorenzo Gatti, Manas Gaur, Eric Gaussier, Dipesh Gautam, Vasundhara Gautam, Jidong Ge, Tao Ge, Sebastian Gehrmann, Michaela Geierhos, Alexander Gelbukh, Josef van Genabith, Xinwei Geng, Xiubo Geng, Ryan Georgi, Kallirroi Georgila, Alborz Geramifard, Kim Gerdes, Ulrich Germann, Felix Gervits, Mor Geva, Hamidreza Ghader, Raji Ghawi, Sarik Ghazarian, Marjan Ghazvininejad, Mozhdeh Gheini, Nadia Ghobadipasha, Deepanway Ghosal, Debanjan Ghosh, Sayan Ghosh, Shaona Ghosh, Sourav Ghosh, Sucheta Ghosh, Daniela Gifu, Daniel Gildea, C Lee Giles, Salvatore Giorgi, Voula Giouli, Marco Di Giovanni, Adrià de Gispert, Dimitra Gkatzia, George Gkotsis, Goran Glavaš, Martin Gleize, Kristina Gligoric, Pranav Goel, Rahul Goel, Vaibhava Goel, Nazli Goharian, Seraphina Goldfarb-Tarrant, Anna Goldie, Dan Goldwasser, Sharon Goldwater, Sujatha Das Gollapalli, Marcos Goncalves, Lovedeep Gondara, Heng Gong, Jingjing Gong, Linyuan Gong, Ming Gong, Yeyun Gong, Zhengxian Gong, Ana Valeria González, Jeff Good, Michael Wayne Goodman, Rob van der Goot, Karthik Gopalakrishnan, Jonathan Gordon, Philip John Gorinski, Kyle Gorman, Koustava Goswami, Sourabh Gothe, Cyril Goutte, Amit Goyal, Anuj Goyal, Kartik Goyal, Naman Goyal, Pawan Goyal, Tanya Goyal, Natalia Grabar, Jorge Gracia, Mario Graff, Yvette Graham, Christophe Gravier, Edward Grefenstette, Andrej Zukov Gregoric, David Griol, Yulia Grishina, Ralph Grishman,

Alvin Grissom II, Adam Grycner, Stig-Arne Grönroos, Jia-Chen Gu, Jiatao Gu, Jing Gu, Qing Gu, Shuhao Gu, Yue Gu, Jian Guan, Saiping Guan, Yi Guan, Imane Guellil, Lin Gui, Vincent Guigue, Bruno Guillaume, Liane Guillou, Camille Guinaudeau, Kristina Gulordava, Kalpa Gunaratna, Beliz Gunel, Daya Guo, Han Guo, Honglei Guo, Hongyu Guo, Jiang Guo, Junliang Guo, Qipeng Guo, Quan Guo, Ruocheng Guo, Yinpeng Guo, Yinuo Guo, Zhijiang Guo, Abhinav Gupta, Ankit Gupta, Arpit Gupta, Arshit Gupta, Raghav Gupta, Sonal Gupta, Sparsh Gupta, Vivek Gupta, Iryna Gurevych, Suchin Gururangan, Joakim Gustafson, Ximena Gutierrez-Vasques, Francisco Guzmán, Markus Gärtner, Carlos Gómez-Rodríguez, Jana Götze, Tunga Güngör,

Jung-Woo Ha, Le An Ha, Thanh-Le Ha, Ivan Habernal, Hatem Haddad, Kais Haddar, Asmelash Teka Hadgu, Christian Hadiwinoto, Gholamreza Haffari, Michael Hahn, Udo Hahn, Zhen Hai, Thomas Haider, Jan Hajic, Eva Hajicova, Hannaneh Hajishirzi, Hazem Hajj, Sherzod Hakimov, Kishaloy Halder, Felix Hamborg, William L. Hamilton, Michael Hammond, Thierry Hamon, Jialong Han, Kyu Han, Namgi Han, Ting Han, Wenjuan Han, Xianpei Han, Xiaochuang Han, Xu Han, Abram Handler, Chung-Wei Hang, Viktor Hangya, Tianyong Hao, Rejwanul Haque, Syed Haque, Sanda Harabagiu, Momchil Hardalov, Randy Harris, Mareike Hartmann, Matthias Hartung, Thomas Hartvigsen, Sadid A. Hasan, Peter Hase, Chikara Hashimoto, Saeed-Ul Hassan, Nabil Hathout, Annette Hautli-Janisz, Serhii Havrylov, Hiroaki Hayashi, Katsuhiko Hayashi, Yoshihiko Hayashi, Devamanyu Hazarika, Amir Hazem, Ben He, Hangfeng He, Hao He, Hua He, Jiangen He, Junxian He, Luheng He, Shizhu He, Tianxing He, Xuanli He, Yifan He, Yulan He, Zhengqiu He, Zhongjun He, Kenneth Heafield, Marti A. Hearst, Michael Heck, Behnam Hedayatnia, Johannes Heinecke, Benjamin Heinzerling, Jindřich Helcl, James Henderson, Matthew Henderson, Lisa Anne Hendricks, Simon Hengchen, Leonhard Hennig, Nico Herbig, Christian Herold, Teresa Herrmann, Daniel Hershcovich, Jonathan Herzig, Jack Hessel, Gerhard Heyer, Remu Hida, Christopher Hidey, Djoerd Hiemstra, Ryuichiro Higashinaka, Bertrand Higy, Tsutomu Hirao, Tatsuya Hiraoka, Graeme Hirst, Sorami Hisamoto, Kasia Hitczenko, Lydia-Mai Ho-Dac, Tin Kam Ho, Cong Duy Vu Hoang, Cuong Hoang, Julia Hockenmaier, Johannes Hoffart, Chris Hokamp, Eben Holderness, Nora Hollenstein, Kristy Hollingshead, Laura Hollink, Ari Holtzman, Christopher Homan, Takeshi Homma, Dezhi Hong, Kai Hong, Yu Hong, Mark Hopkins, Enamul Hoque, Helmut Horacek, Ales Horak, Mohammad Javad Hosseini, saghar Hosseini, Veronique Hoste, Feng Hou, Lei Hou, Yufang Hou, Yutai Hou, Dirk Hovy, David M. Howcroft, Christine Howes, Estevam Hruschka, Chao-Chun Hsu, I-Hung Hsu, Wei-Ning Hsu, Phu Mon Htut, Baotian Hu, Bojie Hu, Changjian Hu, Changwei Hu, Chi Hu, Guangneng Hu, Hai Hu, Huang Hu, Jennifer Hu, Jinyi Hu, Mengting Hu, Minghao Hu, Pengwei Hu, Po Hu, Renfen Hu, Wenpeng Hu, Zhe Hu, Zhiting Hu, Ziniu Hu, Xinyu Hua, Yiqing Hua, Chenyang Huang, Chieh-Yang Huang, Chung-Chi Huang, Fei Huang, Guoping Huang, Haoran Huang, Hen-Hsen Huang, Heyan Huang, Jimmy Xiangji Huang, Jing Huang, Jizhou Huang, Kuan-Hao Huang, Liang Huang, Lifu Huang, Luyao Huang, Minlie Huang, Po-Yao Huang, Qingbao Huang, Ruihong Huang, Shujian Huang, Siyu Huang, Xiaolei Huang, Xinting Huang, Xuanjing Huang, Yi-Ting Huang, Yongfeng Huang, Yufang Huang, Zhongqiang Huang, Ziming Huang, Luwen (Vivian) Huangfu, Patrick Huber, Matthias Huck, Kai Hui, Zhen Hui, Ben Hutchinson, Jena D. Hwang, Seung-won Hwang, Sung Ju Hwang, Mika Hämäläinen, Ali Hürriyetoğlu,

Ignacio Iacobacci, Nancy Ide, Adrian Iftene, Oana Ignat, Ryu Iida, Gabriel Ilharco, Filip Ilievski, Dmitry Ilvovsky, Kenji Imamura, Muhammad Imran, Oana Inel, Diana Inkpen, Koji Inoue, Naoya Inoue, Kentaro Inui, Radu Tudor Ionescu, Maxim Ionov, Daphne Ippolito, Tatsuya Ishigaki, Aminul Islam, Tunazzina Islam, Hayate Iso, Dan Iter, Takumi Ito, Lubomir Ivanov, Julia Ive, Tomoya Iwakura, Kenichi Iwatsuki, Srinivasan Iyer, Mohit Iyyer,

Cassandra L. Jacobs, Gilles Jacobs, Jeff Jacobs, Alon Jacovi, Aaron Jaech, Abhyuday Jagannatha, Labiba Jahan, Kokil Jaidka, Prachi Jain, Sarthak Jain, Mimansa Jaiswal, Shoaib Jameel, Abhik Jana, Hyeju Jang, Maciej Janicki, David Janiszek, Sujay Kumar Jauhar, Tommi Jauhiainen, Arun kumar Jayapal, Sébastien Jean, Hwisang Jeon, Sungho Jeon, Minwoo Jeong, Yacine Jernite, Kevin Jesse, Rahul Jha, Donghong Ji, Feng Ji, Yangfeng Ji, Zongcheng Ji, Chen Jia, Robin Jia, Ruipeng Jia, Shengbin Jia, Yuxiang Jia, Zixia Jia, Sittichai Jiampojamarn, Ping Jian, Daxin Jiang, Jing Jiang, Jyun-Yu Jiang, Meng Jiang, Nanjiang Jiang, Zhengbao Jiang, Zhuoren Jiang, Zhuoxuan Jiang, Pengfei Jiao, Wenxiang Jiao, Zhanming Jie, Di Jin, Lifeng Jin, Lisa Jin, Peng Jin, Qin Jin, Xiaolong Jin, Zhijing Jin, Ishan Jindal, Baoyu Jing, Liping Jing, Anna Jobin, Charles Jochim, Anders Johannsen, Richard Johansson, Melvin Johnson, Nebojsa Jojic, Kristiina Jokinen, Erik Jones, Gareth Jones, Siddhartha Reddy Jonnalagadda, Arne Jonsson, Aditya Joshi, Mandar Joshi, Dhanya Jothimani, Shafiq Joty, Meizhi Ju, Xincheng Ju, Yingnan Ju, Jaap Jumelet, Heewoo Jun, Kyomin Jung, Taehee Jung, Zhu Junguo, David Jurgens, Prathyusha Jwalapuram, Preethi Jyothi, Lena Jäger,

Besim Kabashi, Alexandre Kabbach, Jad Kabbara, Sushant Kafle, Sylvain Kahane, Ivana Kajic, Tomoyuki Kajiwara, Mihir Kale, Oren Kalinsky, Aikaterini-Lida Kalouli, Ehsan Kamalloo, Herman Kamper, Jaap Kamps, Min-Yen Kan, Hiroshi Kanayama, Masahiro Kaneko, Jenna Kanerva, Jaewoo Kang, Xiaomian Kang, Katharina Kann, Ryuji Kano, Yoshinobu Kano, Evangelos Kanoulas, Pavan Kapanipathi, Micaela Kaplan, Pinar Karagoz, Alina Karakanta, Svebor Karaman, Giannis Karamanolakis, Siddharth Karamcheti, Mladen Karan, Sarvnaz Karimi, Younes Karimi, Börje Karlsson, Saurav Karmakar, Shubhra Kanti Karmaker, Sanjeev Kumar Karn, Jungo Kasai, Omid Kashefi, Zdeněk Kasner, Nora Kassner, Denys Katerenchuk, Anoop Katti, David Kauchak, Divyansh Kaushik, Pride Kavumba, Daisuke Kawahara, Efsun Sarioglu Kayi, Hideto Kazawa, Ashkan Kazemi, Pei Ke, Katherine Keith, Simon Keizer, Aniruddha Kembhavi, Brendan Kennedy, Casey Kennington, Tom Kenter, Daniel Kershaw, Santosh Kesiraju, Vaibhav Kesri, Madian Khabsa, Shahram Khadivi, Salam Khalifa, Sammy Khalife, Maxim Khalilov, Dinesh Khandelwal, Aparna Khare, Daniel Khashabi, Khalid Al Khatib, Alizishaan Khatri, Chandra Khatri, Tushar Khot, Ashiqur KhudaBukhsh, Douwe Kiela, Halil Kilicoglu, Byeongchang Kim, Donghwan Kim, Gunhee Kim, Hansaem Kim, Hyounghun Kim, Hyunwoo Kim, Jihyuk Kim, Jin-Dong Kim, Joo-Kyung Kim, Jung-Jae Kim, Juyong Kim, Najoung Kim, Seokhwan Kim, Sun Kim, Sundong Kim, Taeuk Kim, Daniel King, Tracy Holloway King, Christo Kirov, Nikita Kitaev, Beata Beigman Klebanov, Ayal Klein, Bennett Kleinberg, Jan-Christoph Klie, Roman Klinger, Julien Kloetzer, Kevin Knight, Alistair Knott, Rebecca Knowles, Miyoung Ko, Hayato Kobayashi, Sosuke Kobayashi, Thomas Kober, Elena Kochkina, Ekaterina Kochmar, Vid Kocijan, Jordan Kodner, Philipp Koehn, Rob Koeling, Svetla Koeva, Mare Koit, Noriyuki Kojima, Dimitrios Kokkinakis, Dorothea Kolossa, Mamoru Komachi, Kazunori Komatani, Rik Koncel-Kedziorski, Grzegorz Kondrak, Fang Kong, Lingkai Kong, Miloslav Konopik, Ioannis Konstas, Parisa Kordjamshidi, Valia Kordoni, Yuta Koreeda, Mandy Korpusik, Katsunori Kotani, Bhushan Kotnis, Fajri Koto, Neema Kotonya, Alexander Kotov, George Kour, Olga Kovaleva, Venelin Kovatchev, Zornitsa Kozareva, Jared Kramer, Bernhard Kratzwald, Sebastian Krause, Elisa Kreiss, Simon Krek, Ralf Krestel, Julia Kreutzer, Amrith Krishna, Kalpesh Krishna, Jayant Krishnamurthy, Rajasekar Krishnamurthy, Nikhil Krishnaswamy, Reno Kriz, Canasai Kruengkrai, Udo Kruschwitz, Anna Kruspe, Germán Kruszewski, Wojciech Kryscinski, Alexander Ku, Lun-Wei Ku, Da Kuang, Marco Kuhlmann, Roland Kuhn, Seth Kulick, Ilia Kulikov, Malhar Kulkarni, Mayank Kulkarni, Artur Kulmizev, Saurabh Kulshreshtha, Abhay Kumar, Abhishek Kumar, Adarsh Kumar, Ashutosh Kumar, Sachin Kumar, Sawan Kumar, Shankar Kumar, Sumeet Kumar, Varun Kumar, Vishwajeet Kumar, Jonathan K. Kummerfeld, Anoop Kunchukuttan, Adhiguna Kuncoro, Souvik Kundu, Florian

Kunneman, Tsung-Ting Kuo, Murathan Kurfalı, Tatsuki Kuribayashi, Mikko Kurimo, Shuhei Kurita, Sadao Kurohashi, Ugur Kursuncu, Aditya Kusupati, Kordula De Kuthy, Mucahid Kutlu, Andrey Kutuzov, Haewoon Kwak, Tom Kwiatkowski, Hongseok Kwon, Arne Köhn,

Caterina Lacerra, Cheng-I Lai, Yuxuan Lai, Chiraag Lala, Divesh Lala, John P. Lalor, Tsz Kin Lam, Wai Lam, Hemank Lamba, Vasileios Lampos, Gerasimos Lampouras, Wuwei Lan, Yunshi Lan, Frédéric Landragin, Phillippe Langlais, Ni Lao, Mirella Lapata, Gabriella Lapesa, Ekaterina Lapshinova-Koltunski, François Lareau, Brian Larson, Stefan Larson, Kornel Laskowski, Mark Last, Luis Lastras, Jey Han Lau, Michael A. Laurenzano, Anne Lauscher, Hady Lauw, Alberto Lavelli, Carolin Lawrence, John Lawrence, Dawn Lawrie, Angeliki Lazaridou, Hung Le, Phong Le, Kevin Leach, Chong Min Lee, Dongkyu Lee, Dongyub Lee, Fei-Tzin Lee, Grandee Lee, Hung-yi Lee, Hwaran Lee, I-Ta Lee, Jay Yoon Lee, Jeong Min Lee, Ji-Ung Lee, Jihwan Lee, Jinhyuk Lee, John Lee, Jongwuk Lee, Kyung-jae Lee, Lung-Hao Lee, Mina Lee, Minwoo Lee, Moontae Lee, Nayeon Lee, Roy Ka-Wei Lee, Sungjin Lee, Yoonhyung Lee, Young-Suk Lee, Els Lefever, Fabrice Lefèvre, Jie Lei, Wenqiang Lei, Jochen L. Leidner, Alessandro Lenci, Yichong Leng, Ben Lengerich, Chee Wee Leong, Yves Lepage, Haley Lepp, Piyawat Lertvittayakumjorn, Gregor Leusch, Jake Lever, Lori Levin, Tomer Levinboim, Rivka Levitan, Sarah Ita Levitan, Gina-Anne Levow, Omer Levy, Ran Levy, Roger Levy, Mike Lewis, Patrick Lewis, Miryam de Lhoneux, Baoli Li, Bei Li, Bryan Li, Chang Li, Chen Li, Cheng-Te Li, Chenliang Li, Dianqi Li, Dongfang Li, Fangtao Li, Fei Li, Feng-Lin Li, Haizhou Li, Hang Li, Hao Li, Haoran Li, Haoran Li, Hongzheng Li, Huayang Li, Irene Li, Jinchao Li, Jing Li, Jiyi Li, Juncheng Li, Junhui Li, Juntao Li, Junyi Jessy Li, Kun Li, Lei Li, Lei Li, Liangyou Li, Manling Li, Maoxi Li, Mu Li, Pan Li, Peifeng Li, Peng Li, Piji Li, Qi Li, Quanzhi Li, Raymond Li, Ruijiang Li, Ruizhe Li, Runnan Li, Shaohua Li, Sheng Li, Shuangyin Li, Si Li, Sujian Li, Tao Li, Tianrui Li, Toby Jia-Jun Li, Wei Li, Wenjie Li, Xiang Li, Xiang Lisa Li, Xiang Lorraine Li, Xiao Li, Xiaoya Li, Xin Li, Xintong Li, Xiujun Li, Xue Li, Yang Li, Yang Li, Yanzeng Li, Yaoyiran Li, Yingjie Li, Yingya Li, Yinqiao Li, Yitong Li, Yuliang Li, Yunyao Li, Zhenghua Li, Zhongyang Li, Zichao Li, Zongxi Li, Maria Liakata, Bin Liang, Chao-Chun Liang, Chen Liang, Davis Liang, Paul Pu Liang, Xiaobo Liang, Xiaodan Liang, Yunlong Liang, Zhicheng Liang, Lizi Liao, Jindřich Libovický, Mohamed Lichouri, Chaya Liebeskind, Luca Di Liello, Constantine Lignos, Anne-Laure Ligozat, Gilbert Lim, Kwan Hui Lim, Nut Limsopatham, Angela Lin, Bill Yuchen Lin, Chenghua Lin, Chin-Yew Lin, Chu-Cheng Lin, Chuan-Jie Lin, Hongfei Lin, Hongyu Lin, Jimmy Lin, Kevin Lin, Kevin Lin, Lucy Lin, Peiqin Lin, Xiang Lin, Yankai Lin, Ying Lin, Zehao Lin, Zhouhan Lin, Zi Lin, Tal Linzen, Marco Lippi, Thomas Lippincott, Zachary Lipton, Pierre Lison, Robert Litschko, Marina Litvak, Bin Liu, Bing Liu, Bing Liu, ChangJian Liu, Chi-Liang Liu, Dayiheng Liu, Dexi Liu, Fangyu Liu, Fei Liu, Fei Liu, Feifan Liu, Haochen Liu, Haokun Liu, Haoyan Liu, Jiachang Liu, Jiahua Liu, Jiangming Liu, Jing Liu, Jingzhou Liu, Kang Liu, Lemao Liu, Ling Liu, Linqing Liu, Maofu Liu, Nelson F. Liu, Peng Liu, Pengfei Liu, Pengfei Liu, Peter Liu, Qian Liu, Qian Liu, Qianchu Liu, Quan Liu, Qun Liu, Tianyi Liu, Tianyu Liu, Tie-Yan Liu, Ting Liu, Weijie Liu, Weiyang Liu, Xianggen Liu, Xiao Liu, Xiaodong Liu, Xuebo Liu, Xueqing Liu, Yan Liu, Yang Liu, Yang Liu, Yang Liu, Ye Liu, Ye Liu, Yijia Liu, Yong Liu, Zemin Liu, Zhenghao Liu, Zhengyuan Liu, Zhengzhong Liu, Zhiyuan Liu, Zhiyuan Liu, Zhuang Liu, Zihan Liu, Zitao Liu, Zoey Liu, Nikola Ljubešić, Kyle Lo, Damien Lolive, Guodong Long, Lucelene Lopes, Marcos Lopes, Jaime Lorenzo-Trueba, Annie Louis, Daniel Loureiro, Ismini Lourentzou, Pablo Loyola, Sharid Loáiciga, Jiasen Lu, Jing Lu, Junyu Lu, Qin Lu, Wei Lu, Yanbin Lu, Yao Lu, Yaojie Lu, Yu Lu, Yi Luan, Nurul Lubis, Alexandra Luccioni, Li Lucy, Cheng Luo, Jiebo Luo, Ling Luo, Ping Luo, Renqian Luo, Robin Luo, Ruotian Luo, Wencan Luo, Yuan Luo, Zhunchen Luo, Anh Tuan Luu, Kelvin Luu, Shangwen Lv, Chunchuan Lyu, Samuel Läubli,

Danni Ma, Jianqiang Ma, Lianbo Ma, Martin Ma, Mingbo Ma, Nianzu Ma, Qianli Ma, Qianwen Ma, Shuming Ma, Tengfei Ma, Wei-Yun Ma, Xiaofei Ma, Xinyin Ma, Xuezhe Ma, Yun Ma, Ismail El Maarouf, Sean MacAvaney, Wolfgang Macherey, Aman Madaan, Avinash Madasu, Mounica Maddela, Nitin Madnani, Andrea Madotto, Walid Magdy, Manuel Mager, Pierre Magistry, Måns Magnusson, Diwakar Mahajan, Suchismit Mahapatra, Adyasha Maharana, Debanjan Mahata, Ayush Maheshwari, Kyle Mahowald, Jean Maillard, Bodhisattwa Prasad Majumder, Navonil Majumder, Peter Makarov, Márton Makrai, Prodromos Malakasiotis, Chaitanya Malaviya, Andreas Maletti, Ankur Mali, Igor Malioutov, Itzik Malkiel, Eric Malmi, Christopher Malon, Rob Malouf, Valentin Malykh, Radhika Mamidi, Emma Manning, Irene Manotas, Elman Mansimov, Saab Mansour, Ramesh Manuvinakurike, Emaad Manzoor, Jiaxin Mao, Runze Mao, Wenji Mao, Yuning Mao, Yuren Mao, Zhendong Mao, Vladislav Maraev, Ana Marasović, Piotr Mardziel, Katerina Margatina, Alda Mari, Benjamin Marie, Alex Marin, Vukosi Marivate, David Martinez, Giovanni Da San Martino, Bruno Martins, Pedro Henrique Martins, Eugenio Martínez-Cámara, Marco Maru, Sameen Maruf, Fiammetta Marulli, Claudia Marzi, Aleksandre Maskharashvili, Maraim Masoud, Matthew Matero, Lambert Mathias, Sandeep Mathias, Nitika Mathur, Prashant Mathur, David Martins de Matos, Sérgio Matos, Yuji Matsumoto, Takuya Matsuzaki, Yevgen Matusevych, Evgeny Matusov, Rowan Hall Maudslay, Mausam, Jonathan May, Stephen Mayhew, Joshua Maynez, Karen Mazidi, Sahisnu Mazumder, Alessandro Mazzei, Diana McCarthy, David McClosky, John P. McCrae, Kate McCurdy, Matthew McDermott, David McDonald, Clifton McFate, Jered McInerney, Bridget McInnes, Kathleen McKeown, Michael McTear, Sara Meftah, Yashar Mehdad, Alexander Mehler, Shikib Mehri, Nikhil Mehta, Sachin Mehta, Sneha Mehta, Clara Meister, Dheeraj Mekala, Gerard de Melo, Julia Mendelsohn, Arul Menezes, Telmo Menezes, Fandong Meng, Rui Meng, Tao Meng, Yu Meng, Zhao Meng, Xue Mengge, Rakesh Radhakrishnan Menon, Amil Merchant, Danny Merkx, Paola Merlo, William Merrill, Mohsen Mesgar, Angeliki Metallinou, Florian Metze, Donald Metzler, Marie-Jean Meurs, Lars Meyer, Adam Meyers, Haitao Mi, Yishu Miao, Yisong Miao, Julian Michael, Lesly Miculicich, Sabrina Mielke, Margot Mieskes, Rada Mihalcea, Todor Mihaylov, Tsvetomila Mihaylova, Nandana Mihindukulasooriya, Claudiu Mihăilă, Martina Miliani, Evangelos Milios, Simon Mille, Corey Miller, Tristan Miller, Alice Millour, Gregory Mills, Emiel van Miltenburg, Eleni Miltsakaki, Farjana Sultana Mim, David Mimno, Bonan Min, Sewon Min, Koji Mineshima, SeyedAbolghasem Mirroshandel, Paramita Mirza, Abhijit Mishra, Pushkar Mishra, Rohan Mishra, Swaroop Mishra, Abhinav Misra, Jeff Mitchell, Verginica Barbu Mititelu, Jelena Mitrović, Sudip Mittal, Vibhu Mittal, Makoto Miwa, Yusuke Miyao, Daichi Mochihashi, Ashutosh Modi, Sarah Moeller, Hans Moen, Aditya Mogadala, Nikita Moghe, Abdelrahman Mohamed, Saif Mohammad, Mahmoud Mohammadi, Alireza Mohammadshahi, Mrinal Mohit, Tasnim Mohiuddin, Michael Mohler, Diego Molla, Francis Mollica, Monica Monachini, Nicholas Monath, Joel Ruben Antony Moniz, Manuel Montes, Emilio Monti, Johanna Monti, Il-Chul Moon, Seungwhan Moon, Raymond Mooney, Andrew Moore, Nafise Sadat Moosavi, Richard Moot, Steven Moran, Erwan Moreau, Antonio Moreno-Ortiz, Jose G. Moreno, Junichiro Mori, Renato De Mori, Véronique Moriceau, Emmanuel Morin, Makoto Morishita, Hajime Morita, John Morris, David R. Mortensen, Ahmadreza Mosallanezhad, Marius Mosbach, Alessandro Moschitti, Masud Moshtaghi, Larry Moss, Lili Mou, Diego Moussallem, Khalil Mrini, Jesse Mu, Jiaqi Mu, Hamdy Mubarak, Pramod Kaushik Mudrakarta, David Mueller, Matteo Muffo, Aldrian Obaja Muis, Animesh Mukherjee, Phoebe Mulcaire, Matthew Mulholland, Benjamin Muller, Philippe Muller, Varish Mulwad, Koji Murakami, Yugo Murawaki, Jamie Murdoch, Smaranda Muresan, Kenton Murray, Rudra Murthy, Shikhar Murty, Tomáš Musil, Rafael Muñoz-Guillena, Agnieszka Mykowiecka, Sheshera Mysore, Lluís Màrquez, Luisa März, Mark-Christoph Müller, Mathias Müller, Thomas Müller,

Anandhavelu N, Farah Nadeem, Nona Naderi, Ryo Nagata, Ajay Nagesh, Aakanksha Naik, Saeed Najafi, Tetsuji Nakagawa, Satoshi Nakamura, Mikio Nakano, Yukiko Nakano, Preslav Nakov, Ramesh Nallapati, Udhyakumar Nallasamy, Feng Nan, Guoshun Nan, Nikita Nangia, Courtney Napoles, Diane Napolitano, Jason Naradowsky, Shashi Narayan, Franco Maria Nardini, Tahira Naseem, Jamal Abdul Nasir, Sudip Naskar, Alexis Nasr, Tristan Naumann, Borja Navarro-Colorado, Roberto Navigli, Mark-Jan Nederhof, Matteo Negri, Isar Nejadgholi, Preksha Nema, Aida Nematzadeh, Ani Nenkova, Guenter Neumann, Mariana Neves, Hwee Tou Ng, Jun-Ping Ng, Vincent Ng, Minh-Quoc Nghiem, Axel-Cyrille Ngonga Ngomo, Dang Tuan Nguyen, Dat Quoc Nguyen, Dong Nguyen, Huyen Nguyen, Kim Anh Nguyen, Thanh Nguyen, Thanh-Tung Nguyen, Thien Huu Nguyen, Toan Q. Nguyen, Truc-Vien T. Nguyen, Trung Hieu Nguyen, Viet-An Nguyen, Jianmo Ni, Eric Nichols, Garrett Nicolai, Massimo Nicosia, Vlad Niculae, Feng Nie, Jian-Yun Nie, Yixin Nie, Jan Niehues, Christina Niklaus, Giannis Nikolentzos, Nikola I. Nikolov, Vassilina Nikoulina, Qiang Ning, Lasguido Nio, Nobal B. Niraula, Kosuke Nishida, Kyosuke Nishida, Noriki Nishida, Masaaki Nishino, Sergiu Nisioi, Malvina Nissim, Tong Niu, Xing Niu, Zheng-Yu Niu, Timothy Niven, Joakim Nivre, Hiroshi Noji, Tadashi Nomoto, Rik van Noord, Damien Nouvel, Jekaterina Novikova, Debora Nozza, Pierre Nugues, Claire Nédellec, Aurélie Névéol,

Alexander O'Connor, Brendan O'Connor, Tim O'Gorman, Daniel Oberski, Jose Ochoa-Luna, Yusuke Oda, Kemal Oflazer, Maciej Ogrodniczuk, Barlas Oguz, Alice Oh, Yoo Rhee Oh, Tomoko Ohkuma, Kiyonori Ohtake, Naoaki Okazaki, Manabu Okumura, Oleg Okun, Hugo Gonçalo Oliveira, Ethel Ong, Yasumasa Onoe, Juri Opitz, Shereen Oraby, Constantin Orasan, Matan Orbach, John Ortega, Petya Osenova, Robert Östling, Naoki Otani, Myle Ott, Zhijian Ou, Hiroki Ouchi, Nedjma Ousidhoum, Jessica Ouyang, Lilja Øvrelid,

Avinesh P.V.S, Deepak P, Maria Leonor Pacheco, Inkit Padhi, Aishwarya Padmakumar, Gustavo Henrique Paetzold, Patrizia Paggio, Arindam Pal, Santanu Pal, Alexis Palmer, Martha Palmer, Endang Pamungkas, Liangming Pan, Xiaoman Pan, Yi-Cheng Pan, Vivek Pandit, Vinay Pandramish, Liang Pang, Richard Yuanzhe Pang, Ludovica Pannitto, Haris Papageorgiou, Pinelopi Papalampidi, Alexandros Papangelis, Nikos Papasarantopoulos, Nikolaos Pappas, Emerson Paraiso, Bhargavi Paranjape, Georgios Paraskevopoulos, Letitia Parcalabescu, Natalie Parde, Antonio Pareja-Lora, Ankur P. Parikh, Haeju Park, Ji Ho Park, Jong Park, Joonsuk Park, Jungsoo Park, Kunwoo Park, Lucy Park, Seong-Bae Park, Serim Park, Sungjoon Park, Youngja Park, Yannick Parmentier, Patrick Paroubek, Ioannis Partalas, Prasanna Parthasarathi, Gabriella Pasi, Tommaso Pasini, Peyman Passban, Rebecca J. Passonneau, Ramakanth Pasunuru, Panupong Pasupat, Raj Patel, Roma Patel, Siddharth Patki, Barun Patra, Braja Gopal Patra, Jasabanta Patro, Viviana Patti, Siddharth Patwardhan, Matthias Paulik, Adam Pauls, Silviu Paun, Ellie Pavlick, John Pavlopoulos, Adam Pease, Pavel Pecina, Ted Pedersen, Jiaxin Pei, Stephan Peitz, Viktor Pekar, Baolin Peng, Hao Peng, Haoruo Peng, Nanyun Peng, Siyao Peng, Wei Peng, Xi Peng, Xutan Peng, Yifan Peng, Gerald Penn, Raffaele Perego, Martin Pereira-Fariña, Lis Kanashiro Pereira, Vittorio Perera, Laura Perez-Beltrachini, Olatz Perez-de-Viñaspre, Gabriele Pergola, Denis Peskov, Ben Peters, Matthew Peters, Matthias Petri, Fabio Petroni, Slav Petrov, Miriam R L Petruck, Maxime Peyrard, Jonas Pfeiffer, Quang Nhat Minh Pham, Maciej Piasecki, Giulio Ermanno Pibiri, Massimo Piccardi, Karl Pichotta, Mohammad Taher Pilehvar, Ildikó Pilán, Tiago Pimentel, Mārcis Pinnis, Juan Pino, Yuval Pinter, Irina Piontkovskaya, Dhivya Piraviperumal, Telmo Pires, Flammie Pirinen, Vito Pirrelli, Miruna Pislar, Emily Pitler, Lidia Pivovarova, Benjamin Piwowarski, Barbara Plank, Lonneke van der Plas, Laura Plaza, Bryan Plummer, Brian Plüss, Lahari Poddar, Nikolaus Poechhacker, Massimo Poesio, Thierry Poibeau, Adam Poliak, Senja Pollak, Lucie Poláková, Girishkumar Ponkiya, Maria Pontiki, Simone Paolo Ponzetto, Hoifung Poon, Kashyap Popat, Maja Popović, Fred Popowich, Soujanya Poria, François

Portet, Christopher Potts, Nima Pourdamghani, Sandhya Prabhakaran, Vinodkumar Prabhakaran, Sameer Pradhan, Animesh Prasad, Judita Preiss, Daniel Preotiuc-Pietro, Ofir Press, Emily Prud'hommeaux, Danish Pruthi, Piotr Przybyła, Michal Ptaszynski, Ratish Puduppully, Rajkumar Pujari, Hemant Purohit, Matthew Purver, James Pustejovsky, Valentina Pyatkin, Juan Antonio Pérez-Ortiz,

Ashequl Qadir, Fanchao Qi, Jianzhong Qi, Dong Qian, Tieyun Qian, Yujie Qian, Chao Qiao, Bing Qin, Guanghui Qin, Lianhui Qin, Libo Qin, Qi Qin, Tao Qin, Liang Qiu, Likun Qiu, Long Qiu, Minghui Qiu, Xipeng Qiu, Yunqi Qiu, Zimeng Qiu, Chen Qu, Yanru Qu, Xiaojun Quan, Martí Quixal,

Ella Rabinovich, Alexandre Rademaker, Gorjan Radevski, Will Radford, Bardia Rafieian, Alessandro Raganato, Preethi Raghavan, Dinesh Raghu, Afshin Rahimi, Zahra Rahimi, Altaf Rahman, Muhammad Rahman, Dheeraj Rajagopal, Shahab Raji, Nitendra Rajput, Taraka Rama, Deepak Ramachandran, Anil Ramakrishna, Ganesh Ramakrishnan, Rohan Ramanath, Owen Rambow, Diego Ramirez-Echavarria, Gabriela Ramirez-de-la-Rosa, Carlos Ramisch, Alan Ramponi, Surangika Ranathunga, Priya Rani, Jinfeng Rao, Yanghui Rao, Ari Rappoport, Ahmad Rashid, Hannah Rashkin, Abhinav Rastogi, Sadaf Abdul Rauf, Vikas Raunak, Shauli Ravfogel, Sujith Ravi, Abhilasha Ravichander, Manikandan Ravikiran, Vinit Ravishankar, Avik Ray, Soumya Ray, Manny Rayner, Paul Rayson, Julia Rayz, Simon Razniewski, Livy Real, Traian Rebedea, Clement Rebuffel, Marta Recasens, Florence Reeder, Ines Rehbein, Georg Rehm, Marek Rei, Roi Reichart, Emily Reif, Paul Reisert, Nils Reiter, Norbert Reithinger, David Reitter, Navid Rekabsaz, Da Ren, Feiliang Ren, Pengjie Ren, Shuhuai Ren, Shuo Ren, Xiang Ren, Yafeng Ren, Yuanhang Ren, Zhaochun Ren, Adithya Renduchintala, Philip Resnik, Luis Reyes-Galindo, Martin Reynaert, Robert Reynolds, Kiamehr Rezaee, Eugénio Ribeiro, Leonardo F. R. Ribeiro, Manuel Sam Ribeiro, Marco Tulio Ribeiro, Corentin Ribeyre, Giuseppe Riccardi, Kyle Richardson, Matthew Richardson, Caitlin Richter, Sebastian Riedel, Martin Riedl, Jason Riesa, German Rigau, Shruti Rijhwani, Matīss Rikters, Laura Rimell, Fabio Rinaldi, Annette Rios, Anthony Rios, Julian Risch, Alan Ritter, Molly Roberts, Gil Rocha, Pedro Rodriguez, Melissa Roemmele, Anna Rogers, Omid Rohanian, Oleg Rokhlenko, Roland Roller, Stephen Roller, Alexey Romanov, Laurent Romary, Salvatore Romeo, Srikanth Ronanki, Wenge Rong, Subendhu Rongali, Francesco Ronzano, Rudolf Rosa, Andrew Rosenberg, Sara Rosenthal, Candace Ross, Sophie Rosset, Paolo Rosso, Aiala Rosá, Dan Roth, Michael Roth, Hossein Rouhizadeh, Masoud Rouhizadeh, Adam Roussel, Joseph Le Roux, Aurko Roy, Subhro Roy, Jos Rozen, Alla Rozovskaya, Raphael Rubino, Sebastian Ruder, Rachel Rudinger, Koustav Rudra, Frank Rudzicz, Jack Rueter, Ivan Vladimir Meza Ruiz, Josef Ruppenhofer, Vasile Rus, Irene Russo, Attapol Rutherford, Tatyana Ruzsics, Max Ryabinin, Maria Ryskina, Hee Jung Ryu, Andreas Rücklé,

Masoud Jalili Sabet, Mrinmaya Sachan, Fatiha Sadat, Arka Sadhu, Mehrnoosh Sadrzadeh, Marzieh Saeidi, Tara Safavi, Sylvie Saget, Horacio Saggion, Benoît Sagot, Koustuv Saha, Monjoy Saha, Punyajoy Saha, Sriparna Saha, Tanay Kumar Saha, Saurav Sahay, Gözde Şahin, Gaurav Sahu, Sunil Kumar Sahu, Keisuke Sakaguchi, Mohammad Salameh, Elizabeth Salesky, Avneesh Saluja, Tanja Samardzic, Rajhans Samdani, Niloofar Safi Samghabadi, Younes Samih, Ramon Sanabria, George Sanchez, Germán Sanchis-Trilles, Victor Sanh, Chinnadhurai Sankar, Sashank Santhanam, Marina Santini, Cicero Nogueira dos Santos, T.Y.S.S Santosh, Bishal Santra, Sebastin Santy, Maarten Sap, Naomi Saphra, Maya Sappelli, Murat Saraclar, Anoop Sarkar, Kamal Sarkar, Prathusha K Sarma, Felix Sasaki, Shota Sasaki, Ryohei Sasano, Danielle Saunders, Agata Savary, Denis Savenkov, Aleksandar Savkov, Ramit Sawhney, Apoorv Saxena, Asad Sayeed, Kevin Scannell, Bianca Scarlini, Carolina Scarton, Thomas Schaaf, Shigehiko Schamoni, Thomas Schatz, Tatjana Scheffler, Yves Scherrer, Timo

Schick, David Schlangen, Dominik Schlechtweg, Viktor Schlegel, Natalie Schluter, Helmut Schmid, Martin Schmitt, Tyler Schnoebelen, Steven Schockaert, Annika Marie Schoene, Mirco Schoenfeld, Alexandra Schofield, Marc Schulder, William Schuler, Claudia Schulz, Hannes Schulz, Elliot Schumacher, Sebastian Schuster, Tal Schuster, Ineke Schuurman, H. Andrew Schwartz, Lane Schwartz, Roy Schwartz, Robert Schwarzenberg, Djamé Seddah, João Sedoc, Abigail See, Elad Segal, Satoshi Sekine, Ethan Selfridge, Thibault Sellam, David Semedo, Olga Seminck, Nasredine Semmar, Cansu Sen, Prithviraj Sen, Shubhashis Sengupta, Rico Sennrich, Minjoon Seo, Yeon Seonwoo, Gwenaelle Cunha Sergio, Abhishek Sethi, Lei Sha, Mahsa Shafaei, Pararth Shah, Samira Shaikh, Igor Shalyminov, Chao Shang, Jingbo Shang, Mingyue Shang, Nan Shao, Yingxia Shao, Yutong Shao, Ori Shapira, Naomi Shapiro, Amr Sharaf, Matthew Shardlow, Abhishek Sharma, Arpit Sharma, Ashish Sharma, Piyush Sharma, Soumya Sharma, Serge Sharoff, Peter Shaw, Lanbo She, Kim Cheng Sheang, Artem Shelmanov, Aili Shen, Dinghan Shen, Gehui Shen, Hua Shen, Jiaming Shen, Qinlan Shen, Sheng Shen, Shiqi Shen, Siqi Shen, Tao Shen, Weizhou Shen, Xiaoyu Shen, Yatian Shen, Yilin Shen, Emily Sheng, Bei Shi, Chuan Shi, Haoyue Shi, Peng Shi, Shuming Shi, Tianze Shi, Weijia Shi, Weiyan Shi, Xiaodong Shi, Xing Shi, Yangyang Shi, Zhan Shi, Zhouxing Shi, Chihiro Shibata, Tomohide Shibata, Anastasia Shimorina, Jamin Shin, Prashant Shiralkar, Boaz Shmueli, Abu Awal Md Shoeb, Linjun Shou, Mohit Shridhar, Manish Shrivastava, Ritvik Shrivastava, Dimitar Shterionov, Kai Shu, Lei Shu, Raphael Shu, Kurt Shuster, Alexander Shvets, Vered Shwartz, Chenglei Si, Mei Si, Aditya Siddhant, Advaith Siddharthan, Georgios Sidiropoulos, Candy Sidner, Melanie Siegel, Avi Sil, Max Silberztein, Max Silberztein, Miikka Silfverberg, Eliezer de Souza da Silva, Fabrizio Silvestri, Michel Simard, Patrick Simianer, Kathleen Siminyu, Goncalo Simoes, Dan Simonson, Matthew Sims, Abhishek Singh, Loitongbam Gyanendro Singh, Sameer Singh, Karan Singla, Priyanka Sinha, Valentina Sintsova, Sunayana Sitaram, Gabriel Skantze, Steve Skiena, Blaž Škrlj, Kevin Small, Koenraad De Smedt, David Smith, Noah A. Smith, Eriks Sneiders, Felipe Soares, Livio Baldini Soares, Artem Sokolov, Luca Soldaini, Aina Garí Soler, Katira Soleymanzadeh, Thamar Solorio, Youngseo Son, Dezhao Song, Haoyu Song, Hyun-Je Song, Kai Song, Kaiqiang Song, Linfeng Song, Ruihua Song, Sanghoun Song, Wei Song, Yan Song, Yangqiu Song, Yiping Song, Rishi Sonthalia, Claudia Soria, Radu Soricut, Aitor Soroa, Alexey Sorokin, Daniil Sorokin, José G. C. de Souza, Marlo Souza, Irena Spasic, Manuela Speranza, Matthias Sperber, Evangelia Spiliopoulou, Andreas Spitz, Rachele Sprugnoli, Mukund Sridhar, Rohini Srihari, Vivek Srikumar, Tejas Srinivasan, Ankit Srivastava, Shashank Srivastava, Edward Stabler, Felix Stahlberg, Sanja Stajner, Ieva Staliūnaitė, Efstathios Stamatatos, Marija Stanojevic, Gabriel Stanovsky, Katherine Stasaski, Shane Steinert-Threlkeld, Georg Stemmer, Pontus Stenetorp, Elias Stengel-Eskin, Evgeny Stepanov, Ian Stewart, Giovanni Stilo, George Stoica, Dario Stojanovski, Kevin Stowe, Veselin Stoyanov, Karl Stratos, Kristina Striegnitz, Michael Strube, Jannik Strötgen, Will Styler, Sara Stymne, Dan Su, Jinsong Su, Keh-Yih Su, Ming-Hsiang Su, Pei-Hao Su, Qinliang Su, Yixuan Su, Yu Su, Nishant Subramani, Aparna Subramanian, Sandeep Subramanian, Sanjay Subramanian, Saku Sugawara, Hiroaki Sugiyama, Alessandro Suglia, Yoshihiko Suhara, Alane Suhr, Dianbo Sui, Zhifang Sui, Octavia-Maria Şulea, Elior Sulem, Md Arafat Sultan, Aixin Sun, Changzhi Sun, Fei Sun, Haitian Sun, Jian Sun, Kai Sun, Le Sun, Ming Sun, Mingming Sun, Si Sun, Simeng Sun, Siqi Sun, Weiwei Sun, Xiaobing Sun, Xu Sun, Yajing Sun, Yawei Sun, Yibo Sun, Yifan Sun, Zequn Sun, Zhiqing Sun, Mujeen Sung, Monica Sunkara, Hanna Suominen, Anshuman Suri, Mirac Suzgun, Hisami Suzuki, Jun Suzuki, Pedro Javier Ortiz Suárez, Sandesh Swamy, Swabha Swayamdipta, Stan Szpakowicz, Ida Szubert, Felipe Sánchez-Martínez, Joan Andreu Sánchez, Diarmuid Ó Séaghdha, Anders Søgaard,

Jeniya Tabassum, Ryuki Tachibana, Marie Tahon, Dima Taji, Ryuichi Takanobu, Sho Takase, David Talbot, Aarne Talman, Ronen Tamari, George Tambouratzis, Aleš Tamchyna, Akihiro

Tamura, Chenhao Tan, Chuanqi Tan, Fei Tan, Jinghua Tan, Jiwei Tan, Liling Tan, Samson Tan, Xu Tan, Buzhou Tang, Duyu Tang, Gongbo Tang, Hao Tang, Jiliang Tang, Jintao Tang, Pingjie Tang, Qingming Tang, Shuai Tang, Siliang Tang, Xiangru Tang, Yi-Kun Tang, Zhiwen Tang, Ludovic Tanguy, Xavier Tannier, Chongyang Tao, Fei Tao, Shiva Taslimipoor, Sandeep Tata, Yuka Tateisi, Rachael Tatman, Michiaki Tatsubori, Marta Tatu, Andon Tchechmedjiev, Christoph Teichmann, Selma Tekir, Serra Sinem Tekiroğlu, Eric Tellez, Ian Tenney, Silvia Terragni, Joel Tetreault, Kapil Thadani, khushboo Thaker, Urmish Thakker, Kilian Theil, Ashok Thillaisundaram, Krishnaprasad Thirunarayan, Jesse Thomason, Brian Thompson, Laure Thompson, Craig Thomson, Camilo Thorne, Yuanhe Tian, Zhiliang Tian, Jörg Tiedemann, Christoph Tillmann, Swati Tiwari, Amalia Todirascu, Takenobu Tokunaga, Gabriele Tolomei, Gaurav Singh Tomar, Nadi Tomeh, Nicholas Tomlin, Marc Tomlinson, Mariya Toneva, Kentaro Torisawa, Marwan Torki, Tiago Timponi Torrent, Juan-Manuel Torres-Moreno, María Inés Torres, Paolo Torroni, Shubham Toshniwal, Samia Touileb, Masashi Toyoda, Amine Trabelsi, Quan Hung Tran, Trang Tran, David Traum, Dietrich Trautmann, Marcos Treviso, Alina Trifan, Rocco Tripodi, Bayu Distiawan Trisedya, Harsh Trivedi, Enrica Troiano, Chen-Tse Tsai, Adam Tsakalidis, Reut Tsarfaty, Bo-Hsiang Tseng, Masaaki Tsuchida, Oren Tsur, Yoshimasa Tsuruoka, Yulia Tsvetkov, Kewei Tu, Lifu Tu, Zhaopeng Tu, Dan Tufis, Iulia Turc, Marco Turchi, Ferhan Ture, Rory Turnbull, Martin Tutek, Elena Tutubalina,

Rutuja Ubale, Ana Sabina Uban, Takuma Udagawa, Stefan Ultes, Bhargav Upadhyay, Zdenka Uresova, Alfonso Ureña-López, Olga Uryupina, Dmitry Ustalov, Masao Utiyama,

Ravi Vadlapudi, Keyon Vafa, Ashwini Vaidya, Vincent Vandeghinste, Keith VanderLinden, Lucy Vanderwende, David Vandyke, Natalia Vanetik, Eva Vanmassenhove, Andrea Vanzo, Shikhar Vashishth, Siddharth Vashishtha, Oleg Vasilyev, Lucy Vasserman, Olga Vechtomova, Luis Gerardo Mojica de la Vega, Julien Velcin, Erik Velldal, Giulia Venturi, Subhashini Venugopalan, Suzan Verberne, Gaurav Verma, Rakesh Verma, Giorgos Vernikos, Yannick Versley, Amir Pouran Ben Veyseh, Marta Vicente, Prashanth Vijayaraghavan, Anvesh Rao Vijjini, David Vilar, David Vilares, Serena Villata, Esau Villatoro-Tello, Aline Villavicencio, Anne Vilnat, Veronika Vincze, Sami Virpioja, Krishnapriya Vishnubhotla, Marco Viviani, Andreas Vlachos, Duy Tin Vo, Ngoc Phuoc An Vo, Tatiana Vodolazova, Nikolai Vogler, Rob Voigt, Soroush Vosoughi, Thuy Vu, Thuy-Trang Vu, Tu Vu, Ivan Vulić, Yogarshi Vyas,

Akifumi Wachi, Henning Wachsmuth, Takashi Wada, Joachim Wagner, Sabine Schulte im Walde, Byron Wallace, Eric Wallace, Mengting Wan, Shengxian Wan, Xiaojun Wan, Yao Wan, Yu Wan, Alex Wang, Bailin Wang, Baoxun Wang, Bin Wang, Bingqing Wang, Boxin Wang, Chang Wang, Changhan Wang, Chao Wang, Cunxiang Wang, Daling Wang, Danqing Wang, Di Wang, Fei Wang, Guangrun Wang, Guoyin Wang, Hai Wang, Han Wang, Han Wang, Hanrui Wang, Hao Wang, Haohan Wang, Haoyu Wang, Heyuan Wang, Hong Wang, Hongfei Wang, Hsin-Min Wang, Hua Wang, Jiaqi Wang, Jin Wang, Jingang Wang, Jingjing Wang, Jingkang Wang, Jingwen Wang, Ke Wang, Kexiang Wang, Liang Wang, Lidan Wang, Longyue Wang, Lu Wang, Lucy Lu Wang, Mengxiang Wang, Mingxuan Wang, Nan Wang, Peifeng Wang, Pidong Wang, Ping Wang, Qiang Wang, Qin Wang, Qingyun Wang, Quan Wang, Rui Wang, Rui Wang, Runze Wang, Shaojun Wang, Shi Wang, Shuai Wang, Shuohang Wang, Tong Wang, Wei Wang, Wei Wang, Wen Wang, Wenbo Wang, Wenhui Wang, Wenqi Wang, Wenxuan Wang, Wenya Wang, William Yang Wang, Xiaozhi Wang, Xin Wang, Xinglong Wang, Xuezhi Wang, Yan Wang, Yaqing Wang, Yequan Wang, Yifei Wang, Yizhong Wang, Yong Wang, Yue Wang, Yujing Wang, Zhen Wang, Zhenyi Wang, Zhichun Wang, Zhiguang Wang, Zhiguo Wang, Zhiqiang Wang, Zhongqing Wang, Zijian Wang, Ziqi Wang, Zirui Wang, Artit Wangperawong, Leo Wanner, Nigel Ward, Alex Warstadt,

Christian Wartena, Zeerak Waseem, Koki Washio, Moshe Wasserblat, Shinji Watanabe, Taro Watanabe, Bonnie Webber, Ingmar Weber, Leon Weber, Noah Weber, Kellie Webster, Jürgen Wedekind, Furu Wei, Jason Wei, Junqiu Wei, Penghui Wei, Wei Wei, Xiaochi Wei, Wang Weiran, Gail Weiss, Charles Welch, Orion Weller, Simon Wells, Haoyang Wen, Lijie Wen, Tsung-Hsien Wen, Peter West, Matthijs Westera, Michael White, Richard Wicentowski, Michael Wiegand, John Wieting, Gijs Wijnholds, Ethan Wilcox, Rodrigo Wilkens, Adina Williams, Jake Williams, Jason D Williams, Jennifer Williams, Steven Wilson, Shuly Wintner, Sam Wiseman, Dawid Wisniewski, Guillaume Wisniewski, Tomer Wolfson, Marcin Woliński, Derek F. Wong, Ka Ho Wong, Tak-Lam Wong, Dina Wonsever, Zach Wood-Doughty, Alina Wróblewska, Bowen Wu, Changxing Wu, Chien-Sheng Wu, Fangzhao Wu, Junshuang Wu, Ledell Wu, Lijun Wu, Lingfei Wu, Shih-Hung Wu, Shijie Wu, Tongshuang Wu, Wei Wu, Xianchao Wu, Xixin Wu, Yen-Chen Wu, Youzheng Wu, Yu Wu, Yuanbin Wu, Yuexin Wu, Yuting Wu, Yuxiang Wu, Zeqiu Wu, Zhanghao Wu, Zhen Wu, Zhiyong Wu, Joern Wuebker, Christian Wurm,

Congying Xia, Fei Xia, Jingbo Xia, Mengzhou Xia, Patrick Xia, Qingrong Xia, Rui Xia, Yingce Xia, Yikun Xian, Chaojun Xiao, Huiru Xiao, Lin Xiao, Tong Xiao, Wen Xiao, Xinyan Xiao, Yanghua Xiao, Boyi Xie, Jun Xie, Lei Xie, Qianqian Xie, Ruobing Xie, Bowen Xing, Chen Xing, Frank Xing, Chao Xiong, Hao Xiong, Hongyu Xiong, Wenhan Xiong, Benfeng Xu, Boyan Xu, Can Xu, Chang Xu, Chen Xu, Chenchen Xu, Frank F. Xu, Guandong Xu, Hongfei Xu, Jiacheng Xu, Jinan Xu, Jingjing Xu, Jun Xu, Lei Xu, Lu Xu, Mingzhou Xu, Peng Xu, Qiongkai Xu, Wei Xu, Weiran Xu, Wenduan Xu, Xinnuo Xu, Yan Xu, Yang Xu, Yumo Xu, Yunqiu Xu, Zenglin Xu, Zhen Xu, Huichao Xue, Nianwen Xue,

Mohit Yadav, Shweta Yadav, Yadollah Yaghoobzadeh, Mohamed Yahya, Ikuya Yamada, Ivan Yamshchikov, Jun Yan, Lingyong Yan, Ming Yan, Rui Yan, Yu Yan, Zhao Yan, Baosong Yang, Bishan Yang, Chenghao Yang, Diyi Yang, Haiqin Yang, Jaewon Yang, Jie Yang, Jun Yang, Junjie Yang, Liner Yang, Linyi Yang, Liu Yang, Min Yang, Muyun Yang, Nan Yang, Qian Yang, Sen Yang, Tsung-Yen Yang, Wei Yang, Weiwei Yang, Wenmian Yang, Yaqin Yang, Yazheng Yang, Yiben Yang, Yilin Yang, Zhichao Yang, Zixiaofan Yang, Ziyi Yang, Tae Yano, He Yanqing, Huaxiu Yao, Jin-Ge Yao, Liang Yao, Wenlin Yao, Yiqun Yao, Mark Yatskar, Semih Yavuz, Deming Ye, Hai Ye, Qinyuan Ye, Xiaoyuan Yi, Wen-wai Yim, Seid Muhie Yimam, Da Yin, Haiyan Yin, Qingyu Yin, Wenpeng Yin, Xuwang Yin, Yichun Yin, Anssi Yli-Jyrä, Michael Yoder, Dani Yogatama, Sho Yokoi, Zheng Xin Yong, Seunghyun Yoon, Masashi Yoshikawa, Naoki Yoshinaga, Koichiro Yoshino, Steve Young, Bei Yu, Bowen Yu, Changlong Yu, Chen Yu, Dian Yu, Dian Yu, Dong Yu, Heng Yu, Hong Yu, Jianfei Yu, Jifan Yu, Juntao Yu, Kai Yu, Licheng Yu, Mo Yu, Ping Yu, Seunghak Yu, Tao Yu, Wenhao Yu, Wenmeng Yu, Xiaodong Yu, Zhou Yu, Caixia Yuan, Jianhua Yuan, Nicholas Jing Yuan, Xingdi Yuan, Zheng Yuan, François Yvon,

Menno van Zaanen, Wajdi Zaghouani, Farooq Zaman, Mohammadzaman Zamani, Marcos Zampieri, Yuan Zang, Fabio Massimo Zanzotto, Alessandra Zarcone, Gian Piero Zarri, Sina Zarrieß, Vicky Zayats, Omnia Zayed, Rabih Zbib, Albin Zehe, Amir Zeldes, Rowan Zellers, Yury Zemlyanskiy, Daojian Zeng, Jiali Zeng, Weixin Zeng, Xiangrong Zeng, Xingshan Zeng, Zhaohao Zeng, Deniz Zeyrek, Hanwen Zha, Sheng Zha, Fangzhou Zhai, Shuang (Sophie) Zhai, Yuming Zhai, Biao Zhang, Boliang Zhang, Bowen Zhang, Bowen Zhang, Chao Zhang, Chenbin Zhang, Chenwei Zhang, Chuheng Zhang, Dong Zhang, Dongxu Zhang, Dongyu Zhang, Hainan Zhang, Hao Zhang, Haoyu Zhang, Hongming Zhang, Huijun Zhang, Jiajun Zhang, Jianguo Zhang, Jinchao Zhang, Jingqing Zhang, Jipeng Zhang, Ke Zhang, Kun Zhang, Kunpeng Zhang, Lei Zhang, Licheng Zhang, Longtu Zhang, Meishan Zhang, Meng Zhang, Michael Zhang, Min Zhang, Ningyu Zhang, Qi Zhang, Richong Zhang, Rui Zhang,

Ruiyi Zhang, Ruqing Zhang, Shaohua Zhang, Sheng Zhang, Shujian Zhang, Shuo Zhang, Tongtao Zhang, Wei Emma Zhang, Wei Zhang, Wei-Nan Zhang, Weiwei Zhang, Wen Zhang, Xiang Zhang, Xiang Zhang, Xiangliang Zhang, Xiao Zhang, Xiaotong Zhang, Xiaoying Zhang, Xingxing Zhang, Xinsong Zhang, Xinyuan Zhang, Xuanwei Zhang, Xuanyu Zhang, Xuchao Zhang, Yi Zhang, Yi Zhang, Yi Zhang, Yichi Zhang, Yifan Zhang, Yizhe Zhang, Yu Zhang, Yuan Zhang, Yuan Zhang, Yue Zhang, Yunyi Zhang, Yuqi Zhang, Yuyu Zhang, Zequn Zhang, Zeyu Zhang, Zhe Zhang, Zheng Zhang, Zhirui Zhang, Zhisong Zhang, Zhuosheng Zhang, Chao Zhao, Chen Zhao, Dongyan Zhao, Fei Zhao, Guangxiang Zhao, Jie Zhao, Jieyu Zhao, Jieyu Zhao, Jun Zhao, Kai Zhao, Lujun Zhao, Mengjie Zhao, Sanqiang Zhao, Tiancheng Zhao, Tianyu Zhao, Tiejun Zhao, Wei Zhao, Yang Zhao, Yanpeng Zhao, Yanyan Zhao, Yao Zhao, Yinggong Zhao, Zhou Zhao, Baigong Zheng, Bo Zheng, Changmeng Zheng, Lin Zheng, Renjie Zheng, Xin Zheng, Yinhe Zheng, Ming Zhong, Peixiang Zhong, Victor Zhong, Zexuan Zhong, Ben Zhou, Chunting Zhou, Dong Zhou, Ganbin Zhou, Giulio Zhou, Guangyou Zhou, Hao Zhou, Jiawei Zhou, Jie Zhou, Jingbo Zhou, Junpei Zhou, Junru Zhou, Junsheng Zhou, Junwei Zhou, Li Zhou, Long Zhou, Mantong Zhou, Pei Zhou, Qiji Zhou, Qingyu Zhou, Shuchang Zhou, Shuyan Zhou, Wangchunshu Zhou, Wenxuan Zhou, Xiang Zhou, Xiangyang Zhou, Xuhui Zhou, Yichao Zhou, Yilun Zhou, Zhengyu Zhou, Zhihan Zhou, Zhong Zhou, Dawei Zhu, Haichao Zhu, Henghui Zhu, Jia Zhu, Jinhua Zhu, Junnan Zhu, Kenny Zhu, Ligeng Zhu, Muhua Zhu, Pengfei Zhu, Su Zhu, Wanzheng Zhu, Wei Zhu, Xiaodan Zhu, Xiaofeng Zhu, Zining Zhu, Fuzhen Zhuang, Honglei Zhuang, Yimeng Zhuang, Yuan Zhuang, Leonardo Zilio, Roger Zimmermann, Heike Zinsmeister, Ayah Zirikly, Imed Zitouni, Ran Zmigrod, Michael Zock, Shi Zong, Markus Zopf, Bowei Zou, Yanyan Zou, Amal Zouaq, Arkaitz Zubiaga, Frederike Zufall.

Secondary Reviewers:

Salah Ait-Mokthar, Eunice Akani, Zainab Albujasim, Nada Aldarrab, Sherlon Almeida, Chantal Amrhein, Nikolay Arefyev, Siddhant Arora,

Pablo Badilla, Jorge Balazs, Hubert Baniecki, Hongchang Bao, Liao Baohao, Loïc Barrault, Anton Belyy, Nathan Berger, Aditya Bhargava, Shaily Bhatt, Nikita Bhutani, Yonatan Bitton, Rexhina Blloshmi, Janos Borst, Fabienne Braune, Max Bryan, Ana-Maria Bucur, Wray Buntine, Kim Bürgl,

Hongjie Cai, Jiangxia Cao, Rémi Cardon, Steffen Castle, Sophia Chan, Piyush Chawla, Siva Uday Sampreeth Chebolu, Fumian Chen, Zitong Cheng, Donghee Choi, Eric Corlett,

Jamell Dacon, Leonard Dahlmann, Yinpei Dai, Dhairya Dalal, Maxime D. Armstrong, Souvik Das, Loic De Langhe, Johannes Deleu, Marco Del Treidici, Lorenzo De Mattei, maureen de seyssel, Anurag Deshmukh, Nina Dethlefs, Hannah Devinney, Juglar Diaz, Bayu Distiawan Trisedya, Suman Dowlagar, Rotem Dror, Andrew Drozov, Nan Duan,

Liana Ermakova,

Marzieh Fadaee, Joachim Fainberg, Nils Feldhus, Katy Felkner, Andrew Finch, Clémentine Fourrier,

Xiubo Geng, Efthymios Georgiou, Iacopo Ghinassi, Behrooz Ghorbani, Christian Gollan, Ming Gong, Alicja Gosiewska, Tamas Grosz, Yu Gu, Shu Guo, Ashim Gupta,

Marius Hamacher, Kijong Han, Bradley Hauer, Hangfeng He, Michael Heck, Felix Helfer, Nils Holzenberger, Weiwei Hou, Weronika Hryniewska, Zechuan Hu, Xinting Huang, Yeh Hui-Syuan, Yongkeun Hwang,

Radu Iacob, Nikolai Ilinykh,

Gilles Jacobs, Aman Jaiswal, Anubhav Jangra, Minbyul Jeong, Ryan J. Hubbard, jianshu Ji, Qi Jia, Hao Jiang, Bernal Jimenez Gutierrez, Arne Jönsson,

Tai-lin Karidi, Hemant Kathania, Divyansh Kaushik, Gangwoo Kim, Guillaume Klein, Mateusz Klimaszewski, Xenia Klinge, Ryosuke Kohita, Michael Kozielski, Akshay Krishna Sheshadri, Shachi H. Kumar, Yaman Kumar, Nicholas Kuo, Kemal Kurniawan, Heeyoung Kwak,

Philippe Laban, Samuel Larkin, Hung-yi Lee, Juho Leinonen, Gael Lejeune, Bai Li, Jinggui Liang, Yaqing Liao, Ruogu Lin, Alisa Liu, Kaiji Lu,

Danni Ma, Avinash Madasu, Arnob Mallik, Ramesh Manuvinakurike, Chengsheng Mao, Mounika Marreddy, Federico Martelli, Taha Masood, Diego Maupomé, Matt McNeill, Laiba Mehnaz, Alessio Miaschi, Alice Millour, Flor Miriam Plaza del Arco, Ishani Mondol, Víctor M. Sánchez-Cartagena, Philipp Müller, Deepak Muralidharan, Toshiki Muromachi,

Kouta Nakayama, Yatin Nandwani, Sara Ng, Dan Nguyen,

Mayumi Ohta, Eda Okur, Siru Ouyang, Nadav Oved, Nanami Ozawa,

Vardaan Pahuja, Margherita Pallottino, Jiaxin Pan, Subhadarshi Panda, Jianhui Pang, Andrea Papaluca, Nivranshu Pasricha, Archita Pathak, Chen (Patrick) Pei, Jiahuan Pei, Qianqian Peng, MinhQuang Pham, Joan Plepi, Luigi Procopio,

Weizhen Qi, Yi Qin,

Dheeraj Rajagopal, Alan Ramponi, Fanny Rancourt, Danial Raza, Evelina Rennes, Matías Rojas, Alexis Ross, Aku Rouhe, Hossein Rouhizadeh, Cao Rui,

Sougata Saha, Naveen Saini, Flora Sakketou, Tanja Samardzic, Brenda Santana, Twisampati Sarkar, Shiki Sato, Shigehiko Schamoni, Lena Schiffer, Elad Segal, Sina Semnani, Sandaru Seneviratne, Hendra Setiawan, Kyle Shaffer, Sanket Shah, Jiawei Sheng, Jiatong Shi, Linjun Shou, Keshav Singh, Gabriella Skitalinskaya, Nikita Soni, Anna Sotnikova, Olga Sozinova, Anirudh Srinivasan, Tomasz Stanislawek, Kevin Stier, Peng Su, Shivashankar Subramanian, Yanming Sun, Shahbaz Syed,

Mohsen Tabasy, Ryo Takasu, Duyu Tang, Marc Tanti, Maksym Taranukhin, Xanh Thi Ho, Evgeniia Tokarchuk, Thanh Tran, Yang Trista Cao, Henry Tsai, An Tuan Dao,

Clara Vania, Benjamin van Niekerk, Suzan Verberne, Huy Vu,

Manya Wadhwa, AbdelRahman Wael, Cheng Wang, Sabine Weber, Cyril Weerasoriya, Andreas Weise, Zhihua Wen, Taesun Whang, Katarzyna Woźnica, Liangqing Wu,

Xiaolin Xia, Yuqing Xie, Benfeng Xu,

Brian Yan, Jenny Yang, Xinzhi Yao, Yongjing Yin, Zheng-Xin Yong, Jaehyo Yoo, Ori Yoran, Bowen Yu, Weizhe Yuan,

Frank D. Zamora-Reina, Najam Zaidi, Klim Zaporojets, Shuxi Zeng, Thomas Zenkel, Runzhe Zhan, Chen Zhang, Jinman Zhao, Houquan Zhou, Zining Zhu, Franziska Zimmermann, Elaine Zosa, Jie Zou, Xinxing Zu.

We would like to recognize the following Outstanding Reviewers:

Rami Al-Rfou, Carl Allen, Mark Anderson, Stefanos Angelidis, Jean-Yves Antoine, Leila Arras,

Rohit Babar, Hritik Bansal, Su Lin Blodgett, Valts Blukis, Nadjet Bouayad-Agha, Arthur Bražinskas, Michael Bugert,

Vittorio Castelli, Hou Pong Chan, Fenia Christopoulou, Elizabeth Clark, Kevin Clark, Vincent Claveau, Anna Currey,

Hal Daume III, Forrest Davis, Steve DeNeefe, Daniel Deutsch, Sunipa Dev, Joseph P. Dexter, Pablo Duboue, Philip Dufter, Ondřej Dušek, Rory Duthie, Nouha Dziri,

Alexander Fabbri, Agnieszka Falenska, Sergey Feldman, Daniel Fernandez-Gonzalez, Anjalie Field, Margret Fleck, Michael Flor, Maxwell Forbes, Thomas Francois, Daniel Fried, Zhenxin Fu,

Matteo Gabburo, Yang Gao, Siddhant Garg, Aina Garí Soler, Marcos Goncalves, Jana Götze, Bruno Guillaume,

Xiaochuang Han, Peter Hase, Hiroaki Hayashi, Devamanyu Hazarika, Jack Hessel, Tsutomu Hirao, Ari Holtzman, Xuanjing Huang,

Gabriel Ilharco,

Gilles Jacobs, Alon Jacovi, Sarthak Jain, Nanjiang Jiang, Anders Johanssen,

Jaap Kamps, Siddharth Karamcheti, Brendan Kennedy, Jihyuk Kim, Byeongchang Kim, Nikita Kitaev, Hayato Kobayashi, Noriyuki Kojima, Seth Kulick, Sawan Kumar, Adhiguna Kuncoro,

Jake Lever, Yaoyiran Li, Jindřich Libovický, Fangyu Liu,

Wei-Yun Ma, Adyasha Maharana, Alexander Mehler, Sabrina J. Mielke, Evangelios Milios, Sewon Min, Jeff Mitchell,

Matan Orbach, Jessica Ouyang,

Aishwarya Padmakumar, Bhargavi Paranjape, Letitia Parcalabescu, Carla Parra Escartín, Viviana Patti, Karl Pichotta, Tiago Pimentel, Lahari Poddar, Rajkumar Pujar,

Xiaojun Quan,

Shuhuai Ren, Philip Resnik, Gil Rocha,

Sylvie Saget, Victor Sanh, Timo Schick, Tyler Schnoebelen, Roy Schwartz, Abigail See, Rico Sennrich, Peter Shaw, Qinlan Shen, Tianze Shi, Valentina Sintsova, Wei Song, Youngseo Song, Andreas Spitz, Yoshihiko Suhara, Alane Suhr,

Ronen Tamari, Yuanhe Tian,

Rob van der Goot, Emiel van Miltenberg, Rik van Noord, Lucy Vanderwende, David Vilares,

Alex Wang, Zijian Wang, Zhen Wang, Alex Warstadt, Gail Weiss, Alina Wróblewska, Jorn Wuebker,

Jiacheng Xu,

Michael Yoder, Naoki Yoshinaga, Steve Young, Dian Yu,

Wei Zhang, Zeyu Zhang, Dong Zhou, Ran Zmigrod, Markus Zopf.

Ethics Advisory Committee Reviewers:

Jade Abbott, Adewale Akinfaderin, Nora Al-Twairesh, Laura Alonso Alemany, David Alvarez-Melis, Maxime Amblard, Jean-Yves Antoine,

Timothy Baldwin, Kathy Baxter, Steven Bedrick, Luciana Benotti, Steven Bird, Claudia Borg, Jamie Brandon,

Kai-Wei Chang, Luis Chiruzzo, Marta R. Costa-jussà,

Guy Emerson,

Albert Gatt, Vasundhara Gautam, Dimitra Gkatzia, Sharon Goldwater, Alvin Grissom II,

Jack Hessel,

Shafiq Joty,

Anne Lauscher, Haley Lepp,

Nitin Madnani, Emiel van Miltenburg,

Aurélie Névéol, Nguyen Thi Minh Huyen,

José Ochoa-Luna,

Viviana Patti, Ted Pedersen,

Gabriela Ramírez-de-la-Rosa, Marta Recasens,

Tatjana Scheffler, Kathleen Siminyu,

Samson Tan, Rachael Tatman, Esaú Villatoro Tello.

Aline Villavicencio,

Kellie Webster, Richard Wicentowski,

Jingbo Xia.

Keynote Talk: Advancing Technological Equity in Speech and Language Processing

Helen Meng
The Chinese University of Hong Kong (CUHK)

Abstract: Accelerating advances in AI and deep neural networks have powered the proliferation of speech and language technologies in applications such as virtual assistants, smart speakers, reading machines, etc. The technologies have performed impressively well, achieving human parity in speech recognition accuracies and speech synthesis naturalness. As these technologies continue to permeate our daily lives, they need to support diverse users and usage contexts with inputs that deviate from the mainstream. Examples include non-native speakers, code-switching, speech carrying myriad emotions and styles, and speakers with impairments and disorders. Under such contexts, existing technologies often suffer performance degradations and fail to fulfill the needs of the users. The crux of the problem lies in data scarcity and data sparsity, which are exacerbated by high data variability.

This talk presents an overview of some of the approaches we have used to address the challenges of data shortage, positioned at various stages along the processing pipeline. They include: data augmentation based on speech signal perturbations, use of pre-trained representations, learning speech representation disentanglement, knowledge distillation architectures, meta-learned model re-initialization, as well as adversarially trained models. The effectiveness of these approaches are demonstrated through a variety of applications, including accented speech recognition, dysarthric speech recognition, code-switched speech synthesis, disordered speech reconstruction, one-shot voice conversion and exemplar-based emotive speech synthesis. These efforts strive to develop speech and language technologies that can gracefully adapt and accommodate a diversity of user needs and usage contexts, in order to achieve technological equity in our society.

Bio: Helen Meng is Patrick Huen Wing Ming Professor of Systems Engineering and Engineering Management at The Chinese University of Hong Kong (CUHK). Her research interests include speech and language technologies to support multilingual and multimodal human-computer interactions, eLearning and assistive technologies, as well as big data decision analytics using AI. She leads the interdisciplinary research team that received the first Theme-based Research Scheme Project in Artificial Intelligence in 2019 from the Hong Kong SAR Government's Research Grants Council. She is Chair of the Curriculum Development in the CUHK-JC AI4Future Project, which has developed the courseware for pre-tertiary AI education being taught in a growing number of participating secondary schools across Hong Kong.

Helen received all her degrees from MIT. She is the Founding Director of the CUHK Ministry of Education (MoE)-Microsoft Key Laboratory for Human-Centric Computing and Interface Technologies (since 2005), Tsinghua-CUHK Joint Research Center for Media Sciences, Technologies and Systems (since 2006), and Stanley Ho Big Data Decision Analytics Research Center (since 2013). Previously, she has served as CUHK Faculty of Engineering's Associate Dean (Research), Chairman of the Department of Systems Engineering and Engineering Management, Editor-in-Chief of the IEEE Transactions on Audio, Speech and Language Processing, Member of the IEEE Signal Processing Society Board of Governors, ISCA Board Member and presently member of the IEEE SPS Awards Board and ISCA International Advisory Council. She was elected APSIPA's inaugural Distinguished Lecturer 2012-2013 and ISCA Distinguished Lecturer 2015-2016. Her awards include the Ministry of Education Higher Education Outstanding Scientific Research Output Award 2009, Microsoft Research Outstanding Collaborator Award 2016 (1 in 32 worldwide), IBM Faculty Award 2016, HKPWE Outstanding Women Professionals and Entrepreneurs Award 2017 (1 in 20 since 1999), Hong Kong ICT Silver Award 2018 in Smart Inclusion, 2019 IEEE SPS Leo L. Beranek Meritorious Service Award and various best paper

awards. Helen has served in a number of government appointments, which include memberships in the Steering Committee of Hong Kong's Electronic Health Record Sharing, Social Welfare Department's Joint Committee on Information Technology for the Social Welfare Sector and Advisory Committee on financing social welfare services. She is also a member of the AI4SDGs AI for Children Working Group. Helen is a Fellow of IEEE, ISCA, HKIE and HKCS.

Keynote Talk: Learning and Processing Language from Wearables: Opportunities and Challenges

Alejandrina Cristia
Laboratoire de Sciences Cognitives et de Psycholinguistique,
Département d'études cognitives, ENS, EHESS, CNRS, PSL University

Abstract: Recent years have seen tremendous improvement in the ease with which we can collect naturalistic language samples via devices worn over long periods of time. These allow unprecedented access to ego-centered experiences in language perceived and produced, including by young children. For example, in a newly-formed consortium, we pulled together over 40k hours of audio, collected from 1,001 children growing up in industrialized or hunter-horticulturalist populations, located in one of 12 countries. Such data are interesting for many purposes, including as 1. fodder for unsupervised language learning models aimed at mimicking what the child does; 2. indices of early language development that can be used to assess the impact of behavioral and pharmacological interventions; and 3. samples of the natural use of language(s) in low-resource and multilingual settings. The technology allowing to carve out interesting information from these large datasets, however, is lagging behind – but this may not be such a bad thing after all, since the ethical, technical, and legal handling of such data also need some work to increase the chances that the net impact of research based on this technique is positive. In this talk, I draw from cutting-edge research building on long-form recordings from wearables and a framework for doing the most good we can (effective altruism) to highlight surprising findings in early language acquisition, and delineate key priorities for future work.

Bio: Alejandrina Cristia is a senior researcher at the Centre National de la Recherche Scientifique (CNRS), leader of the Language Acquisition Across Cultures team, and director of the Laboratoire de Sciences Cognitives et Psycholinguistique (LSCP) cohosted by the Ecole Normale Supérieure, EHESS, and PSL. In 2021, she is an invited researcher in the Foundations of Learning Program of the Abdul Latif Jameel Poverty Action Lab (J-PAL), and a guest researcher at the Max Planck Institute for Evolutionary Anthropology. Her long-term aim is to answer the following questions: What are the linguistic representations that infants and adults have? Why and how are they formed? How may learnability biases shape the world's languages? To answer these questions, she combines multiple methodologies including spoken corpora analyses, behavioral studies, neuroimaging (NIRS), and computational modeling. This interdisciplinary approach has resulted in over 100 publications in pscyhology, linguistics, and development journals as well as IEEE and similar conferences. With an interest in cumulative, collaborative, and transparent science, she contributed to the creation of the first meta-meta-analysis platform (metalab.stanford.edu) and several international networks, including saliently the LangVIEW consortium that is leading /L+/, the First truly global summer/winter school on language acquisition.[1] She received the 2017 John S. McDonnell Scholar Award in Understanding Human Cognition, the 2020 Médaille de Bronze CNRS Section Linguistique, and an ERC Consolidator Award (2021-2026) for the ExELang[2] project.

[1] https://www.dpss.unipd.it/summer-school-2021/home
[2] exelang.fr

Keynote Talk: Reliable Characterizations of NLP Systems as a Social Responsibility

Christopher Potts
Stanford University

Abstract: This is an incredible moment for NLP. We all routinely work with models whose capabilities would have seemed like science fiction just two decades ago, powerful organizations eagerly await our latest results, and NLP technologies are playing an increasingly large role in shaping our society. As a result, all of us in the NLP community are likely to participate in research that will contribute (to varying degrees and perhaps only indirectly) to technologies that will impact many people's lives, with both positive and negative consequences – for example, technologies that broaden accessibility, enhance creative self-expression, heighten surveillance, and create propaganda. What can we do to fulfill the social responsibility that this brings? As a (very) partial answer to this question, I will review a number of important recent developments, spanning many research groups, concerning dataset creation, model introspection, and system assessment. Taken together, these ideas can help us more reliably characterize how NLP systems will behave, and more reliably communicate this information to a wider range of potential users. In this way, they can help us meet our obligations to the people whose lives are impacted by the results of our research.

Bio: Christopher Potts is Professor and Chair of Linguistics and Professor (by courtesy) of Computer Science at Stanford, and a faculty member in the Stanford NLP Group and the Stanford AI Lab. His group uses computational methods to explore how emotion is expressed in language and how linguistic production and interpretation are influenced by the context of utterance. This research combines methods from linguistics, cognitive psychology, and computer science, in the service of both scientific discovery and technology development. He was previously Chief Scientist at Roam Analytics, a start-up focused on applying NLP in healthcare and the life sciences (now Parexel AI Labs). He is a long-time Action Editor at TACL, a frequent Area Chair at ACL conferences, and currently an Ethics Committee co-chair for EMNLP 2021.

Table of Contents

Conference Program

Monday, August 2, 2021 (all times UTC+0)

08:15–08:35 ***Opening Session***

08:40–09:00 ***Presidential Address***

09:00–10:00 ***Keynote 1. Helen Meng: Advancing Technological Equity in Speech and Language Processing***

Session 1A: Computational Social Science and Cultural Analytics 1

10:00–10:10 *Investigating label suggestions for opinion mining in German Covid-19 social media*
Tilman Beck, Ji-Ung Lee, Christina Viehmann, Marcus Maurer, Oliver Quiring and Iryna Gurevych

10:10–10:20 *How Did This Get Funded?! Automatically Identifying Quirky Scientific Achievements*
Chen Shani, Nadav Borenstein and Dafna Shahaf

10:20–10:30 *Engage the Public: Poll Question Generation for Social Media Posts*
Zexin Lu, Keyang Ding, Yuji Zhang, Jing Li, Baolin Peng and Lemao Liu

10:30–10:40 *HateCheck: Functional Tests for Hate Speech Detection Models*
Paul Röttger, Bertie Vidgen, Dong Nguyen, Zeerak Waseem, Helen Margetts and Janet Pierrehumbert

10:40–10:50 *Unified Dual-view Cognitive Model for Interpretable Claim Verification*
Lianwei Wu, Yuan Rao, Yuqian Lan, Ling Sun and Zhaoyin Qi

10:50–10:57 *Catchphrase: Automatic Detection of Cultural References*
Nir Sweed and Dafna Shahaf

Session 1B: Language Generation 1

10:00–10:10 *DeepRapper: Neural Rap Generation with Rhyme and Rhythm Modeling*
Lanqing Xue, Kaitao Song, Duocai Wu, Xu Tan, Nevin L. Zhang, Tao Qin, Wei-Qiang Zhang and Tie-Yan Liu

10:10–10:20 *PENS: A Dataset and Generic Framework for Personalized News Headline Generation*
Xiang Ao, Xiting Wang, Ling Luo, Ying Qiao, Qing He and Xing Xie

10:20–10:30 *Enhancing Content Preservation in Text Style Transfer Using Reverse Attention and Conditional Layer Normalization*
Dongkyu Lee, Zhiliang Tian, Lanqing Xue and Nevin L. Zhang

10:30–10:40 *Mention Flags (MF): Constraining Transformer-based Text Generators*
Yufei Wang, Ian Wood, Stephen Wan, Mark Dras and Mark Johnson

10:40–10:50 *Generalising Multilingual Concept-to-Text NLG with Language Agnostic Delexicalisation*
Giulio Zhou and Gerasimos Lampouras

10:50–10:57 *On Training Instance Selection for Few-Shot Neural Text Generation*
Ernie Chang, Xiaoyu Shen, Hui-Syuan Yeh and Vera Demberg

Session 1C: Dialog and Interactive Systems 1

10:00–10:10 *Conversations Are Not Flat: Modeling the Dynamic Information Flow across Dialogue Utterances*
Zekang Li, Jinchao Zhang, Zhengcong Fei, Yang Feng and Jie Zhou

10:10–10:20 *Dual Slot Selector via Local Reliability Verification for Dialogue State Tracking*
Jinyu Guo, Kai Shuang, Jijie Li and Zihan Wang

10:20–10:30 *Transferable Dialogue Systems and User Simulators*
Bo-Hsiang Tseng, Yinpei Dai, Florian Kreyssig and Bill Byrne

10:30–10:40 *BoB: BERT Over BERT for Training Persona-based Dialogue Models from Limited Personalized Data*
Haoyu Song, Yan Wang, Kaiyan Zhang, Wei-Nan Zhang and Ting Liu

10:40–10:50 *GL-GIN: Fast and Accurate Non-Autoregressive Model for Joint Multiple Intent Detection and Slot Filling*
Libo Qin, Fuxuan Wei, Tianbao Xie, Xiao Xu, Wanxiang Che and Ting Liu

10:50–10:57 *Coreference Resolution without Span Representations*
Yuval Kirstain, Ori Ram and Omer Levy

Session 1D: Information Extraction 1

10:00–10:10 *Accelerating BERT Inference for Sequence Labeling via Early-Exit*
Xiaonan Li, Yunfan Shao, Tianxiang Sun, Hang Yan, Xipeng Qiu and Xuanjing Huang

10:10–10:20 *Modularized Interaction Network for Named Entity Recognition*
Fei Li, Zheng Wang, Siu Cheung Hui, Lejian Liao, Dandan Song, Jing Xu, Guoxiu He and meihuizi jia

10:20–10:30 *Capturing Event Argument Interaction via A Bi-Directional Entity-Level Recurrent Decoder*
Xi Xiangyu, Wei Ye, Shikun Zhang, Quanxiu Wang, Huixing Jiang and Wei Wu

10:30–10:40 *UniRE: A Unified Label Space for Entity Relation Extraction*
Yijun Wang, Changzhi Sun, Yuanbin Wu, Hao Zhou, Lei Li and Junchi Yan

10:40–10:50 *Refining Sample Embeddings with Relation Prototypes to Enhance Continual Relation Extraction*
Li Cui, Deqing Yang, Jiaxin Yu, Chengwei Hu, Jiayang Cheng, Jingjie Yi and Yanghua Xiao

10:50–10:57 *Enhancing Entity Boundary Detection for Better Chinese Named Entity Recognition*
Chun Chen and Fang Kong

Monday, August 2, 2021 (all times UTC+0) (continued)

Session 1E: Machine Translation and Multilinguality 1

10:00–10:10 *Contrastive Learning for Many-to-many Multilingual Neural Machine Translation*
Xiao Pan, Mingxuan Wang, Liwei Wu and Lei Li

10:10–10:20 *Understanding the Properties of Minimum Bayes Risk Decoding in Neural Machine Translation*
Mathias Müller and Rico Sennrich

10:20–10:30 *Multi-Head Highly Parallelized LSTM Decoder for Neural Machine Translation*
Hongfei Xu, Qiuhui Liu, Josef van Genabith, Deyi Xiong and Meng Zhang

10:30–10:40 *A Bidirectional Transformer Based Alignment Model for Unsupervised Word Alignment*
Jingyi Zhang and Josef van Genabith

10:40–10:50 *Learning Language Specific Sub-network for Multilingual Machine Translation*
Zehui Lin, Liwei Wu, Mingxuan Wang and Lei Li

10:50–10:57 *Difficulty-Aware Machine Translation Evaluation*
Runzhe Zhan, Xuebo Liu, Derek F. Wong and Lidia S. Chao

Session 2A: Sentiment Analysis, Stylistic Analysis, and Argument Mining 1

11:00–11:10 *Exploring the Efficacy of Automatically Generated Counterfactuals for Sentiment Analysis*
Linyi Yang, Jiazheng Li, Padraig Cunningham, Yue Zhang, Barry Smyth and Ruihai Dong

11:10–11:20 *Bridge-Based Active Domain Adaptation for Aspect Term Extraction*
Zhuang Chen and Tieyun Qian

11:20–11:30 *Multimodal Sentiment Detection Based on Multi-channel Graph Neural Networks*
Xiaocui Yang, Shi Feng, Yifei Zhang and Daling Wang

11:30–11:40 *Aspect-Category-Opinion-Sentiment Quadruple Extraction with Implicit Aspects and Opinions*
Hongjie Cai, Rui Xia and Jianfei Yu

11:40–11:47 *Uncertainty and Surprisal Jointly Deliver the Punchline: Exploiting Incongruity-Based Features for Humor Recognition*
Yubo Xie, Junze Li and Pearl Pu

11:47–11:54 *Counterfactuals to Control Latent Disentangled Text Representations for Style Transfer*
Sharmila Reddy Nangi, Niyati Chhaya, Sopan Khosla, Nikhil Kaushik and Harshit Nyati

Session 2B: Summarization 1

11:00–11:10 *PASS: Perturb-and-Select Summarizer for Product Reviews*
Nadav Oved and Ran Levy

11:10–11:20 *Deep Differential Amplifier for Extractive Summarization*
Ruipeng Jia, Yanan Cao, Fang Fang, Yuchen Zhou, Zheng Fang, Yanbing Liu and Shi Wang

11:20–11:30 *Multi-TimeLine Summarization (MTLS): Improving Timeline Summarization by Generating Multiple Summaries*
Yi Yu, Adam Jatowt, Antoine Doucet, Kazunari Sugiyama and Masatoshi Yoshikawa

11:30–11:40 *Self-Supervised Multimodal Opinion Summarization*
Jinbae Im, Moonki Kim, Hoyeop Lee, Hyunsouk Cho and Sehee Chung

11:40–11:50 *A Training-free and Reference-free Summarization Evaluation Metric via Centrality-weighted Relevance and Self-referenced Redundancy*
Wang Chen, Piji Li and Irwin King

11:50–12:00 *DESCGEN: A Distantly Supervised Datasetfor Generating Entity Descriptions*
Weijia Shi, Mandar Joshi and Luke Zettlemoyer

Session 2C: Interpretability and Analysis of Models for NLP 1

11:00–11:10 *Introducing Orthogonal Constraint in Structural Probes*
Tomasz Limisiewicz and David Mareček

11:10–11:20 *Hidden Killer: Invisible Textual Backdoor Attacks with Syntactic Trigger*
Fanchao Qi, Mukai Li, Yangyi Chen, Zhengyan Zhang, Zhiyuan Liu, Yasheng Wang and Maosong Sun

11:20–11:30 *Examining the Inductive Bias of Neural Language Models with Artificial Languages*
Jennifer C. White and Ryan Cotterell

11:30–11:40 *Explaining Contextualization in Language Models using Visual Analytics*
Rita Sevastjanova, Aikaterini-Lida Kalouli, Christin Beck, Hanna Schäfer and Mennatallah El-Assady

11:40–11:50 *Improving the Faithfulness of Attention-based Explanations with Task-specific Information for Text Classification*
George Chrysostomou and Nikolaos Aletras

11:50–11:57 *Attention Flows are Shapley Value Explanations*
Kawin Ethayarajh and Dan Jurafsky

Session 2D: Language Grounding to Vision, Robotics and Beyond 1

11:00–11:10 *Generating Landmark Navigation Instructions from Maps as a Graph-to-Text Problem*
Raphael Schumann and Stefan Riezler

11:10–11:20 *E2E-VLP: End-to-End Vision-Language Pre-training Enhanced by Visual Learning*
Haiyang Xu, Ming Yan, Chenliang Li, Bin Bi, Songfang Huang, Wenming Xiao and Fei Huang

11:20–11:30 *Learning Relation Alignment for Calibrated Cross-modal Retrieval*
Shuhuai Ren, Junyang Lin, Guangxiang Zhao, Rui Men, An Yang, Jingren Zhou, Xu Sun and Hongxia Yang

11:30–11:40 *KM-BART: Knowledge Enhanced Multimodal BART for Visual Commonsense Generation*
Yiran Xing, Zai Shi, Zhao Meng, Gerhard Lakemeyer, Yunpu Ma and Roger Wattenhofer

11:40–11:47 *Video Paragraph Captioning as a Text Summarization Task*
Hui Liu and Xiaojun Wan

11:47–11:54 *Are VQA Systems RAD? Measuring Robustness to Augmented Data with Focused Interventions*
Daniel Rosenberg, Itai Gat, Amir Feder and Roi Reichart

Session 2E: Machine Learning for NLP 1

11:00–11:10 *Cascaded Head-colliding Attention*
Lin Zheng, Zhiyong Wu and Lingpeng Kong

11:10–11:20 *Structural Knowledge Distillation: Tractably Distilling Information for Structured Predictor*
Xinyu Wang, Yong Jiang, Zhaohui Yan, Zixia Jia, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang and Kewei Tu

11:20–11:30 *Parameter-efficient Multi-task Fine-tuning for Transformers via Shared Hypernetworks*
Rabeeh Karimi Mahabadi, Sebastian Ruder, Mostafa Dehghani and James Henderson

11:30–11:40 *COSY: COunterfactual SYntax for Cross-Lingual Understanding*
SICHENG YU, Hao Zhang, Yulei Niu, Qianru Sun and Jing Jiang

11:40–11:50 *OoMMix: Out-of-manifold Regularization in Contextual Embedding Space for Text Classification*
Seonghyeon Lee, Dongha Lee and Hwanjo Yu

11:50–11:57 *How Helpful is Inverse Reinforcement Learning for Table-to-Text Generation?*
Sayan Ghosh, Zheng Qi, Snigdha Chaturvedi and Shashank Srivastava

Session 3A: Computational Social Science and Cultural Analytics 2

14:00–14:10 *Understanding and Countering Stereotypes: A Computational Approach to the Stereotype Content Model*
Kathleen C. Fraser, Isar Nejadgholi and Svetlana Kiritchenko

14:10–14:20 *Structurizing Misinformation Stories via Rationalizing Fact-Checks*
Shan Jiang and Christo Wilson

14:20–14:30 *Modeling Language Usage and Listener Engagement in Podcasts*
Sravana Reddy, Mariya Lazarova, Yongze Yu and Rosie Jones

14:30–14:40 *Breaking Down the Invisible Wall of Informal Fallacies in Online Discussions*
Saumya Sahai, Oana Balalau and Roxana Horincar

14:40–14:50 *SocAoG: Incremental Graph Parsing for Social Relation Inference in Dialogues*
Liang Qiu, Yuan Liang, Yizhou Zhao, Pan Lu, Baolin Peng, Zhou Yu, Ying Nian Wu and Song-Chun Zhu

14:50–14:57 *Automatic Fake News Detection: Are Models Learning to Reason?*
Casper Hansen, Christian Hansen and Lucas Chaves Lima

Session 3B: Dialog and Interactive Systems 2

14:00–14:10 *TicketTalk: Toward human-level performance with end-to-end, transaction-based dialog systems*
Bill Byrne, Karthik Krishnamoorthi, Saravanan Ganesh and Mihir Kale

14:10–14:20 *Improving Dialog Systems for Negotiation with Personality Modeling*
Runzhe Yang, Jingxiao Chen and Karthik Narasimhan

14:20–14:30 *Learning from Perturbations: Diverse and Informative Dialogue Generation with Inverse Adversarial Training*
Wangchunshu Zhou, Qifei LI and Chenle Li

14:30–14:40 *Increasing Faithfulness in Knowledge-Grounded Dialogue with Controllable Features*
Hannah Rashkin, David Reitter, Gaurav Singh Tomar and Dipanjan Das

14:40–14:47 *Saying No is An Art: Contextualized Fallback Responses for Unanswerable Dialogue Queries*
Ashish Shrivastava, Kaustubh Dhole, Abhinav Bhatt and Sharvani Raghunath

14:47–14:54 *N-Best ASR Transformer: Enhancing SLU Performance using Multiple ASR Hypotheses*
Karthik Ganesan, Pakhi Bamdev, Jaivarsan B, Amresh Venugopal and Abhinav Tushar

Session 3C: Information Extraction 2

14:00–14:10 *CitationIE: Leveraging the Citation Graph for Scientific Information Extraction*
Vijay Viswanathan, Graham Neubig and Pengfei Liu

14:10–14:20 *From Discourse to Narrative: Knowledge Projection for Event Relation Extraction*
Jialong Tang, Hongyu Lin, Meng Liao, Yaojie Lu, Xianpei Han, Le Sun, Weijian Xie and Jin Xu

14:20–14:30 *AdvPicker: Effectively Leveraging Unlabeled Data via Adversarial Discriminator for Cross-Lingual NER*
Weile Chen, Huiqiang Jiang, Qianhui Wu, Börje Karlsson and Yi Guan

14:30–14:40 *Compare to The Knowledge: Graph Neural Fake News Detection with External Knowledge*
Linmei Hu, Tianchi Yang, Luhao Zhang, Wanjun Zhong, Duyu Tang, Chuan Shi, Nan Duan and Ming Zhou

14:40–14:50 *Discontinuous Named Entity Recognition as Maximal Clique Discovery*
Yucheng Wang, Bowen Yu, Hongsong Zhu, Tingwen Liu, Nan Yu and Limin Sun

14:50–15:00 *LNN-EL: A Neuro-Symbolic Approach to Short-text Entity Linking*
Hang Jiang, Sairam Gurajada, Qiuhao Lu, Sumit Neelam, Lucian Popa, Prithviraj Sen, Yunyao Li and Alexander Gray

Session 3D: Machine Translation and Multilinguality 2

14:00–14:10 *Do Context-Aware Translation Models Pay the Right Attention?*
Kayo Yin, Patrick Fernandes, Danish Pruthi, Aditi Chaudhary, André F. T. Martins and Graham Neubig

14:10–14:20 *Adapting High-resource NMT Models to Translate Low-resource Related Languages without Parallel Data*
Wei-Jen Ko, Ahmed El-Kishky, Adithya Renduchintala, Vishrav Chaudhary, Naman Goyal, Francisco Guzmán, Pascale Fung, Philipp Koehn and Mona Diab

14:20–14:30 *Bilingual Lexicon Induction via Unsupervised Bitext Construction and Word Alignment*
Haoyue Shi, Luke Zettlemoyer and Sida I. Wang

14:30–14:40 *Multilingual Speech Translation from Efficient Finetuning of Pretrained Models*
Xian Li, Changhan Wang, Yun Tang, Chau Tran, Yuqing Tang, Juan Pino, Alexei Baevski, Alexis Conneau and Michael Auli

14:40–14:47 *Gender bias amplification during Speed-Quality optimization in Neural Machine Translation*
Adithya Renduchintala, Denise Diaz, Kenneth Heafield, Xian Li and Mona Diab

14:47–14:54 *Machine Translation into Low-resource Language Varieties*
Sachin Kumar, Antonios Anastasopoulos, Shuly Wintner and Yulia Tsvetkov

Session 3E: Interpretability and Analysis of Models for NLP 2

14:00–14:10 *Learning Faithful Representations of Causal Graphs*
Ananth Balashankar and Lakshminarayanan Subramanian

14:10–14:20 *What Context Features Can Transformer Language Models Use?*
Joe O'Connor and Jacob Andreas

14:20–14:30 *Integrated Directional Gradients: Feature Interaction Attribution for Neural NLP Models*
Sandipan Sikdar, Parantapa Bhattacharya and Kieran Heese

14:30–14:37 *Is Sparse Attention more Interpretable?*
Clara Meister, Stefan Lazov, Isabelle Augenstein and Ryan Cotterell

Monday, August 2, 2021 (all times UTC+0) (continued)

14:37–14:44 *The Case for Translation-Invariant Self-Attention in Transformer-Based Language Models*
Ulme Wennberg and Gustav Eje Henter

14:44–14:51 *Relative Importance in Sentence Processing*
Nora Hollenstein and Lisa Beinborn

Poster 1A: Semantics: Sentence-level Semantics, Textual Inference and Other areas

15:00–17:00 *DeCLUTR: Deep Contrastive Learning for Unsupervised Textual Representations*
John Giorgi, Osvald Nitski, Bo Wang and Gary Bader

15:00–17:00 *Doing Good or Doing Right? Exploring the Weakness of Commonsense Causal Reasoning Models*
Mingyue Han and Yinglin Wang

15:00–17:00 *XLPT-AMR: Cross-Lingual Pre-Training via Multi-Task Learning for Zero-Shot AMR Parsing and Text Generation*
Dongqin Xu, Junhui Li, Muhua Zhu, Min Zhang and Guodong Zhou

15:00–17:00 *Span-based Semantic Parsing for Compositional Generalization*
Jonathan Herzig and Jonathan Berant

15:00–17:00 *AND does not mean OR: Using Formal Languages to Study Language Models' Representations*
Aaron Traylor, Roman Feiman and Ellie Pavlick

15:00–17:00 *Enforcing Consistency in Weakly Supervised Semantic Parsing*
Nitish Gupta, Sameer Singh and Matt Gardner

15:00–17:00 *Compositional Generalization and Natural Language Variation: Can a Semantic Parsing Approach Handle Both?*
Peter Shaw, Ming-Wei Chang, Panupong Pasupat and Kristina Toutanova

Poster 1B: Linguistic Theories, Cognitive Modeling and Psycholinguistics

15:00–17:00 *A Targeted Assessment of Incremental Processing in Neural Language Models and Humans*
Ethan Wilcox, Pranali Vani and Roger Levy

Poster 1C: Semantics: Lexical Semantics

15:00–17:00 *The Possible, the Plausible, and the Desirable: Event-Based Modality Detection for Language Processing*
Valentina Pyatkin, Shoval Sadde, Aynat Rubinstein, Paul Portner and Reut Tsarfaty

Poster 1D: Phonology, Morphology and Word Segmentation

15:00–17:00 *To POS Tag or Not to POS Tag: The Impact of POS Tags on Morphological Learning in Low-Resource Settings*
Sarah Moeller, Ling Liu and Mans Hulden

Poster 1E: Speech and Multimodality

15:00–17:00 *Prosodic segmentation for parsing spoken dialogue*
Elizabeth Nielsen, Mark Steedman and Sharon Goldwater

15:00–17:00 *VoxPopuli: A Large-Scale Multilingual Speech Corpus for Representation Learning, Semi-Supervised Learning and Interpretation*
Changhan Wang, Morgane Riviere, Ann Lee, Anne Wu, Chaitanya Talnikar, Daniel Haziza, Mary Williamson, Juan Pino and Emmanuel Dupoux

15:00–17:00 *An Improved Model for Voicing Silent Speech*
David Gaddy and Dan Klein

Poster 1F: Ethics in NLP

15:00–17:00 *What's in the Box? An Analysis of Undesirable Content in the Common Crawl Corpus*
Alexandra Luccioni and Joseph Viviano

15:00–17:00 *Stereotyping Norwegian Salmon: An Inventory of Pitfalls in Fairness Benchmark Datasets*
Su Lin Blodgett, Gilsinia Lopez, Alexandra Olteanu, Robert Sim and Hanna Wallach

Poster 1G: Information Retrieval and Text Mining

15:00–17:00 *Robust Knowledge Graph Completion with Stacked Convolutions and a Student Re-Ranking Network*
Justin Lovelace, Denis Newman-Griffis, Shikhar Vashishth, Jill Fain Lehman and Carolyn Rosé

15:00–17:00 *A DQN-based Approach to Finding Precise Evidences for Fact Verification*
Hai Wan, Haicheng Chen, Jianfeng Du, Weilin Luo and Rongzhen Ye

Poster 1H: Machine Learning for NLP

15:00–17:00 *The Art of Abstention: Selective Prediction and Error Regularization for Natural Language Processing*
Ji Xin, Raphael Tang, Yaoliang Yu and Jimmy Lin

15:00–17:00 *Unsupervised Out-of-Domain Detection via Pre-trained Transformers*
Keyang Xu, Tongzheng Ren, Shikun Zhang, Yihao Feng and Caiming Xiong

15:00–17:00 *Continual Quality Estimation with Online Bayesian Meta-Learning*
Abiola Obamuyide, Marina Fomicheva and Lucia Specia

15:00–17:00 *MATE-KD: Masked Adversarial TExt, a Companion to Knowledge Distillation*
Ahmad Rashid, Vasileios Lioutas and Mehdi Rezagholizadeh

15:00–17:00 *Selecting Informative Contexts Improves Language Model Fine-tuning*
Richard Antonello, Nicole Beckage, Javier Turek and Alexander Huth

15:00–17:00 *Explainable Prediction of Text Complexity: The Missing Preliminaries for Text Simplification*
Cristina Garbacea, Mengtian Guo, Samuel Carton and Qiaozhu Mei

15:00–17:00 *Multi-Task Retrieval for Knowledge-Intensive Tasks*
Jean Maillard, Vladimir Karpukhin, Fabio Petroni, Wen-tau Yih, Barlas Oguz, Veselin Stoyanov and Gargi Ghosh

Poster 1I: Interpretability and Analysis of Models for NLP

15:00–17:00 *When Do You Need Billions of Words of Pretraining Data?*
Yian Zhang, Alex Warstadt, Xiaocheng Li and Samuel R. Bowman

15:00–17:00 *Analyzing the Source and Target Contributions to Predictions in Neural Machine Translation*
Elena Voita, Rico Sennrich and Ivan Titov

15:00–17:00 *Comparing Test Sets with Item Response Theory*
Clara Vania, Phu Mon Htut, William Huang, Dhara Mungra, Richard Yuanzhe Pang, Jason Phang, Haokun Liu, Kyunghyun Cho and Samuel R. Bowman

15:00–17:00 *Uncovering Constraint-Based Behavior in Neural Models via Targeted Fine-Tuning*
Forrest Davis and Marten van Schijndel

15:00–17:00 *More Identifiable yet Equally Performant Transformers for Text Classification*
Rishabh Bhardwaj, Navonil Majumder, Soujanya Poria and Eduard Hovy

Poster 1J: Dialog and Interactive Systems

15:00–17:00 *AugNLG: Few-shot Natural Language Generation using Self-trained Data Augmentation*
Xinnuo Xu, Guoyin Wang, Young-Bum Kim and Sungjin Lee

15:00–17:00 *A Span-based Dynamic Local Attention Model for Sequential Sentence Classification*
Xichen Shang, Qianli Ma, Zhenxi Lin, Jiangyue Yan and Zipeng Chen

Poster 1K: Resources and Evaluation

15:00–17:00 *How effective is BERT without word ordering? Implications for language understanding and data privacy*
Jack Hessel and Alexandra Schofield

15:00–17:00 *Can vectors read minds better than experts? Comparing data augmentation strategies for the automated scoring of children's mindreading ability*
Venelin Kovatchev, Phillip Smith, Mark Lee and Rory Devine

15:00–17:00 *A Dataset and Baselines for Multilingual Reply Suggestion*
Mozhi Zhang, Wei Wang, Budhaditya Deb, Guoqing Zheng, Milad Shokouhi and Ahmed Hassan Awadallah

15:00–17:00 *WikiSum: Coherent Summarization Dataset for Efficient Human-Evaluation*
Nachshon Cohen, Oren Kalinsky, Yftah Ziser and Alessandro Moschitti

15:00–17:00 *What Ingredients Make for an Effective Crowdsourcing Protocol for Difficult NLU Data Collection Tasks?*
Nikita Nangia, Saku Sugawara, Harsh Trivedi, Alex Warstadt, Clara Vania and Samuel R. Bowman

15:00–17:00 *UMIC: An Unreferenced Metric for Image Captioning via Contrastive Learning*
Hwanhee Lee, Seunghyun Yoon, Franck Dernoncourt, Trung Bui and Kyomin Jung

15:00–17:00 *Neural OCR Post-Hoc Correction of Historical Corpora*
Lijun Lyu, Maria Koutraki, Martin Krikl and Besnik Fetahu

Poster 1L: Computational Social Science and Cultural Analytics

15:00–17:00 *Align Voting Behavior with Public Statements for Legislator Representation Learning*
Xinyi Mou, Zhongyu Wei, Lei Chen, Shangyi Ning, Yancheng He, Changjian Jiang and Xuanjing Huang

15:00–17:00 *Measure and Evaluation of Semantic Divergence across Two Languages*
Syrielle Montariol and Alexandre Allauzen

Poster 1M: Machine Translation and Multilinguality

15:00–17:00 *Improving Zero-Shot Translation by Disentangling Positional Information*
Danni Liu, Jan Niehues, James Cross, Francisco Guzmán and Xian Li

15:00–17:00 *Common Sense Beyond English: Evaluating and Improving Multilingual Language Models for Commonsense Reasoning*
Bill Yuchen Lin, Seyeon Lee, Xiaoyang Qiao and Xiang Ren

15:00–17:00 *Attention Calibration for Transformer in Neural Machine Translation*
Yu Lu, Jiali Zeng, Jiajun Zhang, Shuangzhi Wu and Mu Li

15:00–17:00 *Anchor-based Bilingual Word Embeddings for Low-Resource Languages*
Tobias Eder, Viktor Hangya and Alexander Fraser

15:00–17:00 *Diverse Pretrained Context Encodings Improve Document Translation*
Domenic Donato, Lei Yu and Chris Dyer

15:00–17:00 *Multilingual Agreement for Multilingual Neural Machine Translation*
Jian Yang, Yuwei Yin, Shuming Ma, Haoyang Huang, Dongdong Zhang, Zhoujun Li and Furu Wei

15:00–17:00 *Exploiting Language Relatedness for Low Web-Resource Language Model Adaptation: An Indic Languages Study*
Yash Khemchandani, Sarvesh Mehtani, Vaidehi Patil, Abhijeet Awasthi, Partha Talukdar and Sunita Sarawagi

Poster 1N: Syntax: Tagging, Chunking, and Parsing

15:00–17:00 *On Finding the K-best Non-projective Dependency Trees*
Ran Zmigrod, Tim Vieira and Ryan Cotterell

15:00–17:00 *Higher-order Derivatives of Weighted Finite-state Machines*
Ran Zmigrod, Tim Vieira and Ryan Cotterell

Poster 1O: Theme

15:00–17:00 *Towards Argument Mining for Social Good: A Survey*
Eva Maria Vecchi, Neele Falk, Iman Jundi and Gabriella Lapesa

15:00–17:00 *Automated Generation of Storytelling Vocabulary from Photographs for use in AAC*
Mauricio Fontana de Vargas and Karyn Moffatt

Poster 1P: NLP Applications

15:00–17:00 *CLIP: A Dataset for Extracting Action Items for Physicians from Hospital Discharge Notes*
James Mullenbach, Yada Pruksachatkun, Sean Adler, Jennifer Seale, Jordan Swartz, Greg McKelvey, Hui Dai, Yi Yang and David Sontag

15:00–17:00 *Assessing Emoji Use in Modern Text Processing Tools*
Abu Awal Md Shoeb and Gerard de Melo

15:00–17:00 *Select, Extract and Generate: Neural Keyphrase Generation with Layer-wise Coverage Attention*
Wasi Ahmad, Xiao Bai, Soomin Lee and Kai-Wei Chang

Poster 1Q: Language Generation

15:00–17:00 *Factorising Meaning and Form for Intent-Preserving Paraphrasing*
Tom Hosking and Mirella Lapata

15:00–17:00 *AggGen: Ordering and Aggregating while Generating*
Xinnuo Xu, Ondřej Dušek, Verena Rieser and Ioannis Konstas

15:00–17:00 *Reflective Decoding: Beyond Unidirectional Generation with Off-the-Shelf Language Models*
Peter West, Ximing Lu, Ari Holtzman, Chandra Bhagavatula, Jena D. Hwang and Yejin Choi

15:00–17:00 *Towards Table-to-Text Generation with Numerical Reasoning*
Lya Hulliyyatus Suadaa, Hidetaka Kamigaito, Kotaro Funakoshi, Manabu Okumura and Hiroya Takamura

15:00–17:00 *Data-to-text Generation with Macro Planning*
Ratish Puduppully and Mirella Lapata

Poster 1R: Summarization

15:00–17:00 *BACO: A Background Knowledge- and Content-Based Framework for Citing Sentence Generation*
Yubin Ge, Ly Dinh, Xiaofeng Liu, Jinsong Su, Ziyao Lu, Ante Wang and Jana Diesner

15:00–17:00 *Language Model as an Annotator: Exploring DialoGPT for Dialogue Summarization*
Xiachong Feng, Xiaocheng Feng, Libo Qin, Bing Qin and Ting Liu

15:00–17:00 *Reinforcement Learning for Abstractive Question Summarization with Question-aware Semantic Rewards*
Shweta Yadav, Deepak Gupta, Asma Ben Abacha and Dina Demner-Fushman

Poster 1S: Question Answering

15:00–17:00 *Challenges in Information-Seeking QA: Unanswerable Questions and Paragraph Retrieval*
Akari Asai and Eunsol Choi

15:00–17:00 *A Semantics-aware Transformer Model of Relation Linking for Knowledge Base Question Answering*
Tahira Naseem, Srinivas Ravishankar, Nandana Mihindukulasooriya, Ibrahim Abdelaziz, Young-Suk Lee, Pavan Kapanipathi, Salim Roukos, Alfio Gliozzo and Alexander Gray

15:00–17:00 *A Gradually Soft Multi-Task and Data-Augmented Approach to Medical Question Understanding*
Khalil Mrini, Franck Dernoncourt, Seunghyun Yoon, Trung Bui, Walter Chang, Emilia Farcas and Ndapa Nakashole

15:00–17:00 *Neural Retrieval for Question Answering with Cross-Attention Supervised Data Augmentation*
Yinfei Yang, Ning Jin, Kuo Lin, Mandy Guo and Daniel Cer

Poster 1T: Language Grounding to Vision, Robotics and Beyond

15:00–17:00 *Enhancing Descriptive Image Captioning with Natural Language Inference*
Zhan Shi, Hui Liu and Xiaodan Zhu

Poster 1U: Information Extraction

15:00–17:00 *Leveraging Type Descriptions for Zero-shot Named Entity Recognition and Classification*
Rami Aly, Andreas Vlachos and Ryan McDonald

15:00–17:00 *MECT: Multi-Metadata Embedding based Cross-Transformer for Chinese Named Entity Recognition*
Shuang Wu, Xiaoning Song and Zhenhua Feng

15:00–17:00 *MOLEMAN: Mention-Only Linking of Entities with a Mention Annotation Network*
Nicholas FitzGerald, Dan Bikel, Jan Botha, Daniel Gillick, Tom Kwiatkowski and Andrew McCallum

15:00–17:00 *Factuality Assessment as Modal Dependency Parsing*
Jiarui Yao, Haoling Qiu, Jin Zhao, Bonan Min and Nianwen Xue

Poster 1V: Sentiment Analysis, Stylistic Analysis, and Argument Mining

15:00–17:00 *Directed Acyclic Graph Network for Conversational Emotion Recognition*
Weizhou Shen, Siyue Wu, Yunyi Yang and Xiaojun Quan

15:00–17:00 *Improving Formality Style Transfer with Context-Aware Rule Injection*
Zonghai Yao and hong yu

15:00–17:00 *Topic-Driven and Knowledge-Aware Transformer for Dialogue Emotion Detection*
Lixing Zhu, Gabriele Pergola, Lin Gui, Deyu Zhou and Yulan He

15:00–17:00 *Syntopical Graphs for Computational Argumentation Tasks*
Joe Barrow, Rajiv Jain, Nedim Lipka, Franck Dernoncourt, Vlad Morariu, Varun Manjunatha, Douglas Oard, Philip Resnik and Henning Wachsmuth

15:00–17:00 *Stance Detection in COVID-19 Tweets*
Kyle Glandt, Sarthak Khanal, Yingjie Li, Doina Caragea and Cornelia Caragea

15:00–17:00 *eMLM: A New Pre-training Objective for Emotion Related Tasks*
Tiberiu Sosea and Cornelia Caragea

15:00–17:00 *Topic-Aware Evidence Reasoning and Stance-Aware Aggregation for Fact Verification*
Jiasheng Si, Deyu Zhou, Tongzhe Li, Xingyu Shi and Yulan He

17:00—18:00 ***Keynote 2. Alejandrina Cristia: Learning and Processing Language from Wearables: Opportunities and Challenges***

Session 4A: Computational Social Science and Cultural Analytics 3

23:00–23:10 *Changes in European Solidarity Before and During COVID-19: Evidence from a Large Crowd- and Expert-Annotated Twitter Dataset*
Alexandra Ils, Dan Liu, Daniela Grunow and Steffen Eger

23:10–23:20 *Measuring Conversational Uptake: A Case Study on Student-Teacher Interactions*
Dorottya Demszky, Jing Liu, Zid Mancenido, Julie Cohen, Heather Hill, Dan Jurafsky and Tatsunori Hashimoto

23:20–23:30 *A Survey of Code-switching: Linguistic and Social Perspectives for Language Technologies*
A. Seza Doğruöz, Sunayana Sitaram, Barbara E. Bullock and Almedia Jacqueline Toribio

23:30–23:40 *Learning from the Worst: Dynamically Generated Datasets to Improve Online Hate Detection*
Bertie Vidgen, Tristan Thrush, Zeerak Waseem and Douwe Kiela

23:40–23:50 *InfoSurgeon: Cross-Media Fine-grained Information Consistency Checking for Fake News Detection*
Yi Fung, Christopher Thomas, Revanth Gangi Reddy, Sandeep Polisetty, Heng Ji, Shih-Fu Chang, Kathleen McKeown, Mohit Bansal and Avi Sil

23:50–23:57 *On Positivity Bias in Negative Reviews*
Madhusudhan Aithal and Chenhao Tan

Session 4B: Dialog and Interactive Systems 3

23:00–23:10 *I like fish, especially dolphins: Addressing Contradictions in Dialogue Modeling*
Yixin Nie, Mary Williamson, Mohit Bansal, Douwe Kiela and Jason Weston

23:10–23:20 *A Sequence-to-Sequence Approach to Dialogue State Tracking*
Yue Feng, Yang Wang and Hang Li

23:20–23:30 *Discovering Dialog Structure Graph for Coherent Dialog Generation*
Jun Xu, Zeyang Lei, Haifeng Wang, Zheng-Yu Niu, Hua Wu and Wanxiang Che

23:30–23:40 *Dialogue Response Selection with Hierarchical Curriculum Learning*
Yixuan Su, Deng Cai, Qingyu Zhou, Zibo Lin, Simon Baker, Yunbo Cao, Shuming Shi, Nigel Collier and Yan Wang

Monday, August 2, 2021 (all times UTC+0) (continued)

23:40–23:50 *A Joint Model for Dropped Pronoun Recovery and Conversational Discourse Parsing in Chinese Conversational Speech*
Jingxuan Yang, Kerui Xu, Jun Xu, Si Li, Sheng Gao, Jun Guo, Nianwen Xue and Ji-Rong Wen

23:50–23:57 *PRAL: A Tailored Pre-Training Model for Task-Oriented Dialog Generation*
Jing Gu, Qingyang Wu, Chongruo Wu, Weiyan Shi and Zhou Yu

Session 4C: Information Extraction 3

23:00–23:10 *A Systematic Investigation of KB-Text Embedding Alignment at Scale*
Vardaan Pahuja, Yu Gu, Wenhu Chen, Mehdi Bahrami, Lei Liu, Wei-Peng Chen and Yu Su

23:10–23:20 *Named Entity Recognition with Small Strongly Labeled and Large Weakly Labeled Data*
Haoming Jiang, Danqing Zhang, Tianyu Cao, Bing Yin and Tuo Zhao

23:20–23:30 *Ultra-Fine Entity Typing with Weak Supervision from a Masked Language Model*
Hongliang Dai, Yangqiu Song and Haixun Wang

23:30–23:40 *Improving Named Entity Recognition by External Context Retrieving and Cooperative Learning*
Xinyu Wang, Yong Jiang, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang and Kewei Tu

23:40–23:47 *ROPE: Reading Order Equivariant Positional Encoding for Graph-based Document Information Extraction*
Chen-Yu Lee, Chun-Liang Li, Chu Wang, Renshen Wang, Yasuhisa Fujii, Siyang Qin, Ashok Popat and Tomas Pfister

23:47–23:54 *Zero-shot Event Extraction via Transfer Learning: Challenges and Insights*
Qing Lyu, Hongming Zhang, Elior Sulem and Dan Roth

Session 4D: Interpretability and Analysis of Models for NLP 3

23:00–23:10 *Implicit Representations of Meaning in Neural Language Models*
Belinda Z. Li, Maxwell Nye and Jacob Andreas

23:10–23:20 *Causal Analysis of Syntactic Agreement Mechanisms in Neural Language Models*
Matthew Finlayson, Aaron Mueller, Sebastian Gehrmann, Stuart Shieber, Tal Linzen and Yonatan Belinkov

23:20–23:30 *Bird's Eye: Probing for Linguistic Graph Structures with a Simple Information-Theoretic Approach*
Yifan Hou and Mrinmaya Sachan

23:30–23:40 *Knowledgeable or Educated Guess? Revisiting Language Models as Knowledge Bases*
Boxi Cao, Hongyu Lin, Xianpei Han, Le Sun, Lingyong Yan, Meng Liao, Tong Xue and Jin Xu

23:40–23:50 *Poisoning Knowledge Graph Embeddings via Relation Inference Patterns*
Peru Bhardwaj, John Kelleher, Luca Costabello and Declan O'Sullivan

23:50–23:57 *Using Adversarial Attacks to Reveal the Statistical Bias in Machine Reading Comprehension Models*
Jieyu Lin, Jiajie Zou and Nai Ding

Session 4E: Ethics in NLP 1

23:00–23:10 *Bad Seeds: Evaluating Lexical Methods for Bias Measurement*
Maria Antoniak and David Mimno

23:10–23:20 *A Survey of Race, Racism, and Anti-Racism in NLP*
Anjalie Field, Su Lin Blodgett, Zeerak Waseem and Yulia Tsvetkov

23:20–23:30 *Intrinsic Bias Metrics Do Not Correlate with Application Bias*
Seraphina Goldfarb-Tarrant, Rebecca Marchant, Ricardo Muñoz Sánchez, Mugdha Pandya and Adam Lopez

23:30–23:40 *RedditBias: A Real-World Resource for Bias Evaluation and Debiasing of Conversational Language Models*
Soumya Barikeri, Anne Lauscher, Ivan Vulić and Goran Glavaš

Monday, August 2, 2021 (all times UTC+0) (continued)

23:40–23:47 *Quantifying and Avoiding Unfair Qualification Labour in Crowdsourcing*
Jonathan K. Kummerfeld

23:47–23:54 *Men Are Elected, Women Are Married: Events Gender Bias on Wikipedia*
Jiao Sun and Nanyun Peng

Tuesday, August 3, 2021 (all times UTC+0)

Session 5A: Machine Translation and Multilinguality 3

00:00–00:10 *Contributions of Transformer Attention Heads in Multi- and Cross-lingual Tasks*
Weicheng Ma, Kai Zhang, Renze Lou, Lili Wang and Soroush Vosoughi

00:10–00:20 *Crafting Adversarial Examples for Neural Machine Translation*
Xinze Zhang, Junzhe Zhang, Zhenhua Chen and Kun He

00:20–00:30 *UXLA: A Robust Unsupervised Data Augmentation Framework for Zero-Resource Cross-Lingual NLP*
M Saiful Bari, Tasnim Mohiuddin and Shafiq Joty

00:30–00:40 *Glancing Transformer for Non-Autoregressive Neural Machine Translation*
Lihua Qian, Hao Zhou, Yu Bao, Mingxuan Wang, Lin Qiu, Weinan Zhang, Yong Yu and Lei Li

00:40–00:47 *Modeling Task-Aware MIMO Cardinality for Efficient Multilingual Neural Machine Translation*
Hongfei Xu, Qiuhui Liu, Josef van Genabith and Deyi Xiong

00:47–00:54 *Adaptive Nearest Neighbor Machine Translation*
Xin Zheng, Zhirui Zhang, Junliang Guo, Shujian Huang, Boxing Chen, Weihua Luo and Jiajun CHEN

Session 5B: Language Grounding to Vision, Robotics and Beyond 2

00:00–00:10 *Hierarchical Context-aware Network for Dense Video Event Captioning*
Lei Ji, Xianglin Guo, Haoyang Huang and Xilin Chen

00:10–00:20 *Control Image Captioning Spatially and Temporally*
Kun Yan, Lei Ji, Huaishao Luo, Ming Zhou, Nan Duan and Shuai Ma

00:20–00:30 *Edited Media Understanding Frames: Reasoning About the Intent and Implications of Visual Misinformation*
Jeff Da, Maxwell Forbes, Rowan Zellers, Anthony Zheng, Jena D. Hwang, Antoine Bosselut and Yejin Choi

00:30–00:40 *PIGLeT: Language Grounding Through Neuro-Symbolic Interaction in a 3D World*
Rowan Zellers, Ari Holtzman, Matthew Peters, Roozbeh Mottaghi, Aniruddha Kembhavi, Ali Farhadi and Yejin Choi

00:40–00:50 *Neural Event Semantics for Grounded Language Understanding*
Shyamal Buch, Li Fei-Fei and Noah Goodman

Session 5C: Machine Learning for NLP 2

00:00–00:10 *Modeling Fine-Grained Entity Types with Box Embeddings*
Yasumasa Onoe, Michael Boratko, Andrew McCallum and Greg Durrett

00:10–00:20 *ChineseBERT: Chinese Pretraining Enhanced by Glyph and Pinyin Information*
zijun sun, Xiaoya Li, Xiaofei Sun, Yuxian Meng, Xiang Ao, Qing He, Fei Wu and Jiwei Li

00:20–00:30 *Weight Distillation: Transferring the Knowledge in Neural Network Parameters*
Ye Lin, Yanyang Li, Ziyang Wang, Bei Li, Quan Du, Tong Xiao and Jingbo Zhu

00:30–00:40 *Optimizing Deeper Transformers on Small Datasets*
Peng Xu, Dhruv Kumar, Wei Yang, Wenjie Zi, Keyi Tang, Chenyang Huang, Jackie Chi Kit Cheung, Simon J.D. Prince and Yanshuai Cao

00:40–00:50 *BERTAC: Enhancing Transformer-based Language Models with Adversarially Pretrained Convolutional Neural Networks*
Jong-Hoon Oh, Ryu Iida, Julien Kloetzer and Kentaro Torisawa

00:50–00:57 *On Orthogonality Constraints for Transformers*
Aston Zhang, Alvin Chan, Yi Tay, Jie Fu, Shuohang Wang, Shuai Zhang, Huajie Shao, Shuochao Yao and Roy Ka-Wei Lee

Session 5D: NLP Applications 1 and Ethics

00:00–00:10 *COVID-Fact: Fact Extraction and Verification of Real-World Claims on COVID-19 Pandemic*
Arkadiy Saakyan, Tuhin Chakrabarty and Smaranda Muresan

00:10–00:20 *Explaining Relationships Between Scientific Documents*
Kelvin Luu, Xinyi Wu, Rik Koncel-Kedziorski, Kyle Lo, Isabel Cachola and Noah A. Smith

00:20–00:30 *IrEne: Interpretable Energy Prediction for Transformers*
Qingqing Cao, Yash Kumar Lal, Harsh Trivedi, Aruna Balasubramanian and Niranjan Balasubramanian

00:30–00:40 *Mitigating Bias in Session-based Cyberbullying Detection: A Non-Compromising Approach*
Lu Cheng, Ahmadreza Mosallanezhad, Yasin Silva, Deborah Hall and Huan Liu

00:40–00:50 *PlotCoder: Hierarchical Decoding for Synthesizing Visualization Code in Programmatic Context*
Xinyun Chen, Linyuan Gong, Alvin Cheung and Dawn Song

00:50–01:00 *Changing the World by Changing the Data*
Anna Rogers

Session 6A: Machine Learning for NLP 3

01:00–01:10 *EarlyBERT: Efficient BERT Training via Early-bird Lottery Tickets*
Xiaohan Chen, Yu Cheng, Shuohang Wang, Zhe Gan, Zhangyang Wang and Jingjing Liu

01:10–01:20 *On the Effectiveness of Adapter-based Tuning for Pretrained Language Model Adaptation*
Ruidan He, Linlin Liu, Hai Ye, Qingyu Tan, BOSHENG DING, Liying Cheng, Jiawei Low, Lidong Bing and Luo Si

01:20–01:30 *Data Augmentation for Text Generation Without Any Augmented Data*
Wei Bi, Huayang Li and Jiacheng Huang

01:30–01:40 *KEPLER: A Unified Model for Knowledge Embedding and Pre-trained Language Representation*
Xiaozhi Wang, Tianyu Gao, Zhaocheng Zhu, Zhengyan Zhang, Zhiyuan Liu, Juanzi Li and Jian Tang

01:40–01:50 *Integrating Semantics and Neighborhood Information with Graph-Driven Generative Models for Document Retrieval*
Zijing Ou, Qinliang Su, Jianxing Yu, Bang Liu, Jingwen Wang, Ruihui Zhao, Changyou Chen and Yefeng Zheng

01:50–01:57 *Measuring and Improving BERT's Mathematical Abilities by Predicting the Order of Reasoning.*
Piotr Piękos, Mateusz Malinowski and Henryk Michalewski

Session 6B: Resources and Evaluation 1

01:00–01:10 *SMURF: SeMantic and linguistic UndeRstanding Fusion for Caption Evaluation via Typicality Analysis*
Joshua Feinglass and Yezhou Yang

01:10–01:20 *KaggleDBQA: Realistic Evaluation of Text-to-SQL Parsers*
Chia-Hsuan Lee, Oleksandr Polozov and Matthew Richardson

01:20–01:30 *QASR: QCRI Aljazeera Speech Resource A Large Scale Annotated Arabic Speech Corpus*
Hamdy Mubarak, Amir Hussein, Shammur Absar Chowdhury and Ahmed Ali

01:30–01:40 *An Empirical Study on Hyperparameter Optimization for Fine-Tuning Pre-trained Language Models*
Xueqing Liu and Chi Wang

01:40–01:50 *Better than Average: Paired Evaluation of NLP systems*
Maxime Peyrard, Wei Zhao, Steffen Eger and Robert West

01:50–01:57 *Happy Dance, Slow Clap: Using Reaction GIFs to Predict Induced Affect on Twitter*
Boaz Shmueli, Soumya Ray and Lun-Wei Ku

Session 6C: Semantics: Sentence-level Semantics, Textual Inference and Other areas 1

01:00–01:10 *Chase: A Large-Scale and Pragmatic Chinese Dataset for Cross-Database Context-Dependent Text-to-SQL*
Jiaqi Guo, Ziliang Si, Yu Wang, Qian Liu, Ming Fan, Jian-Guang LOU, Zijiang Yang and Ting Liu

01:10–01:20 *CLINE: Contrastive Learning with Semantic Negative Examples for Natural Language Understanding*
Dong Wang, Ning Ding, Piji Li and Haitao Zheng

01:20–01:30 *Tree-Structured Topic Modeling with Nonparametric Neural Variational Inference*
Ziye Chen, Cheng Ding, Zusheng Zhang, Yanghui Rao and Haoran Xie

01:30–01:40 *ExCAR: Event Graph Knowledge Enhanced Explainable Causal Reasoning*
Li Du, Xiao Ding, Kai Xiong, Ting Liu and Bing Qin

01:40–01:50 *Infusing Finetuning with Semantic Dependencies*
Zhaofeng Wu, Hao Peng and Noah Smith

01:50–01:57 *Exploring Listwise Evidence Reasoning with T5 for Fact Verification*
Kelvin Jiang, Ronak Pradeep and Jimmy Lin

Session 6D: Sentiment Analysis, Stylistic Analysis, and Argument Mining 2

01:00–01:10 *Distributed Representations of Emotion Categories in Emotion Space*
Xiangyu Wang and Chengqing Zong

01:10–01:20 *Style is NOT a single variable: Case Studies for Cross-Stylistic Language Understanding*
Dongyeop Kang and Eduard Hovy

01:20–01:30 *DynaSent: A Dynamic Benchmark for Sentiment Analysis*
Christopher Potts, Zhengxuan Wu, Atticus Geiger and Douwe Kiela

01:30–01:40 *A Hierarchical VAE for Calibrating Attributes while Generating Text using Normalizing Flow*
Bidisha Samanta, Mohit Agrawal and NIloy Ganguly

01:40–01:50 *A Unified Generative Framework for Aspect-based Sentiment Analysis*
Hang Yan, Junqi Dai, Tuo Ji, Xipeng Qiu and Zheng Zhang

01:50–02:00 *Classifying Argumentative Relations Using Logical Mechanisms and Argumentation Schemes*
Yohan Jo, Seojin Bang, Chris Reed and Eduard Hovy

Session 7A: Dialog and Interactive Systems 4

08:00–08:10 *Discovering Dialogue Slots with Weak Supervision*
Vojtěch Hudeček, Ondřej Dušek and Zhou Yu

08:10–08:20 *Enhancing the generalization for Intent Classification and Out-of-Domain Detection in SLU*
Yilin Shen, Yen-Chang Hsu, Avik Ray and Hongxia Jin

08:20–08:30 *ProtAugment: Intent Detection Meta-Learning through Unsupervised Diverse Paraphrasing*
Thomas Dopierre, Christophe Gravier and Wilfried Logerais

08:30–08:40 *Robustness Testing of Language Understanding in Task-Oriented Dialog*
Jiexi Liu, Ryuichi Takanobu, Jiaxin Wen, Dazhen Wan, hongguang li, weiran nie, Cheng LI, Wei Peng and Minlie Huang

08:40–08:50 *Comprehensive Study: How the Context Information of Different Granularity Affects Dialogue State Tracking?*
Puhai Yang, Heyan Huang and Xian-Ling Mao

08:50–09:00 *OTTers: One-turn Topic Transitions for Open-Domain Dialogue*
Karin Sevegnani, David M. Howcroft, Ioannis Konstas and Verena Rieser

Session 7B: Semantics: Sentence-level Semantics, Textual Inference and Other areas 2

08:00–08:10 *Towards Robustness of Text-to-SQL Models against Synonym Substitution*
Yujian Gan, Xinyun Chen, Qiuping Huang, Matthew Purver, John R. Woodward, Jinxia Xie and Pengsheng Huang

08:10–08:20 *KACE: Generating Knowledge Aware Contrastive Explanations for Natural Language Inference*
Qianglong Chen, Feng Ji, Xiangji Zeng, Feng-Lin Li, Ji Zhang, Haiqing Chen and Yin Zhang

08:20–08:30 *Self-Guided Contrastive Learning for BERT Sentence Representations*
Taeuk Kim, Kang Min Yoo and Sang-goo Lee

08:30–08:40 *LGESQL: Line Graph Enhanced Text-to-SQL Model with Mixed Local and Non-Local Relations*
Ruisheng Cao, Lu Chen, Zhi Chen, Yanbin Zhao, Su Zhu and Kai Yu

08:40–08:47 *DefSent: Sentence Embeddings using Definition Sentences*
Hayato Tsukagoshi, Ryohei Sasano and Koichi Takeda

08:47–08:54 *Discrete Cosine Transform as Universal Sentence Encoder*
Nada Almarwani and Mona Diab

Session 7C: Speech and Multimodality 1

08:00–08:10 *Multi-stage Pre-training over Simplified Multimodal Pre-training Models*
Tongtong Liu, Fangxiang Feng and Xiaojie WANG

08:10–08:20 *Beyond Sentence-Level End-to-End Speech Translation: Context Helps*
Biao Zhang, Ivan Titov, Barry Haddow and Rico Sennrich

08:20–08:30 *LayoutLMv2: Multi-modal Pre-training for Visually-rich Document Understanding*
Yang Xu, Yiheng Xu, Tengchao Lv, Lei Cui, Furu Wei, Guoxin Wang, Yijuan Lu, Dinei Florencio, Cha Zhang, Wanxiang Che, Min Zhang and Lidong Zhou

08:30–08:40 *UNIMO: Towards Unified-Modal Understanding and Generation via Cross-Modal Contrastive Learning*
Wei Li, Can Gao, Guocheng Niu, Xinyan Xiao, Hao Liu, Jiachen Liu, Hua Wu and Haifeng Wang

08:40–08:50 *Missing Modality Imagination Network for Emotion Recognition with Uncertain Missing Modalities*
Jinming Zhao, Ruichen Li and Qin Jin

08:50–09:00 *Stacked Acoustic-and-Textual Encoding: Integrating the Pre-trained Models into Speech Translation Encoders*
Chen Xu, Bojie Hu, Yanyang Li, Yuhao Zhang, shen huang, Qi Ju, Tong Xiao and Jingbo Zhu

Session 7D: Syntax: Tagging, Chunking, and Parsing 1

08:00–08:10 *N-ary Constituent Tree Parsing with Recursive Semi-Markov Model*
Xin Xin, Jinlong Li and Zeqi Tan

08:10–08:20 *Automated Concatenation of Embeddings for Structured Prediction*
Xinyu Wang, Yong Jiang, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang and Kewei Tu

08:20–08:30 *Multi-View Cross-Lingual Structured Prediction with Minimum Supervision*
Zechuan Hu, Yong Jiang, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang and Kewei Tu

08:30–08:40 *The Limitations of Limited Context for Constituency Parsing*
Yuchen Li and Andrej Risteski

Tuesday, August 3, 2021 (all times UTC+0) (continued)

08:40–08:50 *Neural Bi-Lexicalized PCFG Induction*
Songlin Yang, Yanpeng Zhao and Kewei Tu

Session 7E: Resources and Evaluation 2

08:00–08:10 *Ruddit: Norms of Offensiveness for English Reddit Comments*
Rishav Hada, Sohi Sudhir, Pushkar Mishra, Helen Yannakoudakis, Saif M. Mohammad and Ekaterina Shutova

08:10–08:20 *Towards Quantifiable Dialogue Coherence Evaluation*
Zheng Ye, Liucun Lu, Lishan Huang, Liang Lin and Xiaodan Liang

08:20–08:30 *Assessing the Representations of Idiomaticity in Vector Models with a Noun Compound Dataset Labeled at Type and Token Levels*
Marcos Garcia, Tiago Kramer Vieira, Carolina Scarton, Marco Idiart and Aline Villavicencio

08:30–08:40 *Factoring Statutory Reasoning as Language Understanding Challenges*
Nils Holzenberger and Benjamin Van Durme

08:40–08:50 *Evaluating Evaluation Measures for Ordinal Classification and Ordinal Quantification*
Tetsuya Sakai

08:50–08:57 *AligNarr: Aligning Narratives on Movies*
Paramita Mirza, Mostafa Abouhamra and Gerhard Weikum

Session 8A: Information Extraction 4

09:00–09:10 *Interpretable and Low-Resource Entity Matching via Decoupling Feature Learning from Decision Making*
Zijun Yao, Chengjiang Li, Tiansi Dong, Xin Lv, Jifan Yu, Lei Hou, Juanzi Li, YICHI ZHANG and zelin Dai

09:10–09:20 *Locate and Label: A Two-stage Identifier for Nested Named Entity Recognition*
Yongliang Shen, Xinyin Ma, Zeqi Tan, Shuai Zhang, Wen Wang and Weiming Lu

09:20–09:30 *Text2Event: Controllable Sequence-to-Structure Generation for End-to-end Event Extraction*
Yaojie Lu, Hongyu Lin, Jin Xu, Xianpei Han, Jialong Tang, Annan Li, Le Sun, Meng Liao and Shaoyi Chen

09:30–09:40 *A Large-Scale Chinese Multimodal NER Dataset with Speech Clues*
Dianbo Sui, Zhengkun Tian, Yubo Chen, Kang Liu and Jun Zhao

09:40–09:50 *A Neural Transition-based Joint Model for Disease Named Entity Recognition and Normalization*
Zongcheng Ji, Tian Xia, Mei Han and Jing Xiao

09:50–10:00 *OntoED: Low-resource Event Detection with Ontology Embedding*
Shumin Deng, Ningyu Zhang, Luoqiu Li, Chen Hui, tou huaixiao, Mosha Chen, Fei Huang and Huajun Chen

Session 8B: Machine Translation and Multilinguality 4

09:00–09:10 *Self-Training Sampling with Monolingual Data Uncertainty for Neural Machine Translation*
Wenxiang Jiao, Xing Wang, Zhaopeng Tu, Shuming Shi, Michael Lyu and Irwin King

09:10–09:20 *Breaking the Corpus Bottleneck for Context-Aware Neural Machine Translation with Cross-Task Pre-training*
Linqing Chen, Junhui Li, Zhengxian Gong, Boxing Chen, Weihua Luo, Min Zhang and Guodong Zhou

09:20–09:30 *Guiding Teacher Forcing with Seer Forcing for Neural Machine Translation*
Yang Feng, Shuhao Gu, Dengji Guo, Zhengxin Yang and Chenze Shao

09:30–09:40 *Cascade versus Direct Speech Translation: Do the Differences Still Make a Difference?*
Luisa Bentivogli, Mauro Cettolo, Marco Gaido, Alina Karakanta, Alberto Martinelli, Matteo Negri and Marco Turchi

Tuesday, August 3, 2021 (all times UTC+0) (continued)

09:40–09:50 *Unsupervised Neural Machine Translation for Low-Resource Domains via Meta-Learning*
Cheonbok Park, Yunwon Tae, TaeHee Kim, Soyoung Yang, Mohammad Azam Khan, Lucy Park and Jaegul Choo

09:50–09:57 *An Exploratory Analysis of Multilingual Word-Level Quality Estimation with Cross-Lingual Transformers*
Tharindu Ranasinghe, Constantin Orasan and Ruslan Mitkov

Session 8C: Machine Learning for NLP 4

09:00–09:10 *Lightweight Cross-Lingual Sentence Representation Learning*
Zhuoyuan Mao, Prakhar Gupta, Chenhui Chu, Martin Jaggi and Sadao Kurohashi

09:10–09:20 *ERNIE-Doc: A Retrospective Long-Document Modeling Transformer*
SiYu Ding, Junyuan Shang, Shuohuan Wang, Yu Sun, Hao Tian, Hua Wu and Haifeng Wang

09:20–09:30 *Marginal Utility Diminishes: Exploring the Minimum Knowledge for BERT Knowledge Distillation*
Yuanxin LIU, Fandong Meng, Zheng Lin, Weiping Wang and Jie Zhou

09:30–09:40 *Rational LAMOL: A Rationale-based Lifelong Learning Framework*
Kasidis Kanwatchara, Thanapapas Horsuwan, Piyawat Lertvittayakumjorn, Boonserm Kijsirikul and Peerapon Vateekul

09:40–09:50 *EnsLM: Ensemble Language Model for Data Diversity by Semantic Clustering*
Zhibin Duan, Hao Zhang, Chaojie Wang, Zhengjue Wang, Bo Chen and Mingyuan Zhou

09:50–10:00 *LeeBERT: Learned Early Exit for BERT with cross-level optimization*
Wei Zhu

Session 8D: NLP Applications 2

09:00–09:10 *Unsupervised Extractive Summarization-Based Representations for Accurate and Explainable Collaborative Filtering*
Reinald Adrian Pugoy and Hung-Yu Kao

09:10–09:20 *PLOME: Pre-training with Misspelled Knowledge for Chinese Spelling Correction*
Shulin Liu, Tao Yang, Tianchi Yue, Feng Zhang and Di Wang

09:20–09:30 *Competence-based Multimodal Curriculum Learning for Medical Report Generation*
Fenglin Liu, Shen Ge and Xian Wu

09:30–09:40 *Learning Syntactic Dense Embedding with Correlation Graph for Automatic Readability Assessment*
Xinying Qiu, Yuan Chen, Hanwu Chen, Jian-Yun Nie, Yuming Shen and Dawei Lu

09:40–09:50 *Meta-KD: A Meta Knowledge Distillation Framework for Language Model Compression across Domains*
Haojie Pan, Chengyu Wang, Minghui Qiu, Yichang Zhang, Yaliang Li and jun huang

09:50–09:57 *Exploration and Exploitation: Two Ways to Improve Chinese Spelling Correction Models*
Chong Li, Cenyuan Zhang, Xiaoqing Zheng and Xuanjing Huang

Session 8E: Question Answering 1

09:00–09:10 *A Semantic-based Method for Unsupervised Commonsense Question Answering*
Yilin Niu, Fei Huang, Jiaming Liang, Wenkai Chen, Xiaoyan Zhu and Minlie Huang

09:10–09:20 *Explanations for CommonsenseQA: New Dataset and Models*
Shourya Aggarwal, Divyanshu Mandowara, Vishwajeet Agrawal, Dinesh Khandelwal, Parag Singla and Dinesh Garg

09:20–09:30 *Few-Shot Question Answering by Pretraining Span Selection*
Ori Ram, Yuval Kirstain, Jonathan Berant, Amir Globerson and Omer Levy

09:30–09:40 *UnitedQA: A Hybrid Approach for Open Domain Question Answering*
Hao Cheng, Yelong Shen, Xiaodong Liu, Pengcheng He, Weizhu Chen and Jianfeng Gao

09:40–09:50 *Database reasoning over text*
James Thorne, Majid Yazdani, Marzieh Saeidi, Fabrizio Silvestri, Sebastian Riedel and Alon Halevy

09:50–09:57 *Training Adaptive Computation for Open-Domain Question Answering with Computational Constraints*
Yuxiang Wu, Pasquale Minervini, Pontus Stenetorp and Sebastian Riedel

Session 9A: Machine Translation and Multilinguality 5

10:00–10:10 *Online Learning Meets Machine Translation Evaluation: Finding the Best Systems with the Least Human Effort*
Vânia Mendonça, Ricardo Rei, Luisa Coheur, Alberto Sardinha and Ana Lúcia Santos

10:10–10:20 *How Good is Your Tokenizer? On the Monolingual Performance of Multilingual Language Models*
Phillip Rust, Jonas Pfeiffer, Ivan Vulić, Sebastian Ruder and Iryna Gurevych

10:20–10:30 *Evaluating morphological typology in zero-shot cross-lingual transfer*
Antonio Martínez-García, Toni Badia and Jeremy Barnes

10:30–10:40 *From Machine Translation to Code-Switching: Generating High-Quality Code-Switched Text*
Ishan Tarunesh, Syamantak Kumar and Preethi Jyothi

10:40–10:50 *Fast and Accurate Neural Machine Translation with Translation Memory*
Qiuxiang He, Guoping Huang, Qu Cui, Li Li and Lemao Liu

10:50–10:57 *An Empirical Study on Adversarial Attack on NMT: Languages and Positions Matter*
Zhiyuan Zeng and Deyi Xiong

Session 9B: Resources and Evaluation 3

10:00–10:10 *Annotating Online Misogyny*
Philine Zeinert, Nanna Inie and Leon Derczynski

10:10–10:20 *Few-NERD: A Few-shot Named Entity Recognition Dataset*
Ning Ding, Guangwei Xu, Yulin Chen, Xiaobin Wang, Xu Han, Pengjun Xie, Haitao Zheng and Zhiyuan Liu

10:20–10:30 *MultiMET: A Multimodal Dataset for Metaphor Understanding*
Dongyu Zhang, Minghao Zhang, Heting Zhang, Liang Yang and Hongfei LIN

10:30–10:40 *Human-in-the-Loop for Data Collection: a Multi-Target Counter Narrative Dataset to Fight Online Hate Speech*
Margherita Fanton, Helena Bonaldi, Serra Sinem Tekiroğlu and Marco Guerini

10:40–10:47 *OntoGUM: Evaluating Contextualized SOTA Coreference Resolution on 12 More Genres*
Yilun Zhu, Sameer Pradhan and Amir Zeldes

Session 9C: Question Answering 2

10:00–10:10 *Can Generative Pre-trained Language Models Serve As Knowledge Bases for Closed-book QA?*
Cunxiang Wang, Pai Liu and Yue Zhang

10:10–10:20 *Joint Models for Answer Verification in Question Answering Systems*
Zeyu Zhang, Thuy Vu and Alessandro Moschitti

10:20–10:30 *Answering Ambiguous Questions through Generative Evidence Fusion and Round-Trip Prediction*
Yifan Gao, Henghui Zhu, Patrick Ng, Cicero Nogueira dos Santos, Zhiguo Wang, Feng Nan, Dejiao Zhang, Ramesh Nallapati, Andrew O. Arnold and Bing Xiang

10:30–10:40 *TAT-QA: A Question Answering Benchmark on a Hybrid of Tabular and Textual Content in Finance*
Fengbin Zhu, Wenqiang Lei, Youcheng Huang, Chao Wang, Shuo Zhang, Jiancheng Lv, Fuli Feng and Tat-Seng Chua

10:40–10:50 *Modeling Transitions of Focal Entities for Conversational Knowledge Base Question Answering*
Yunshi Lan and Jing Jiang

10:50–10:57 *In Factuality: Efficient Integration of Relevant Facts for Visual Question Answering*
Peter Vickers, Nikolaos Aletras, Emilio Monti and Loïc Barrault

Session 9D: Semantics: Sentence-level Semantics, Textual Inference and Other areas 3

10:00–10:10 *Evidence-based Factual Error Correction*
James Thorne and Andreas Vlachos

10:10–10:20 *Probabilistic, Structure-Aware Algorithms for Improved Variety, Accuracy, and Coverage of AMR Alignments*
Austin Blodgett and Nathan Schneider

10:20–10:30 *Meta-Learning to Compositionally Generalize*
Henry Conklin, Bailin Wang, Kenny Smith and Ivan Titov

10:30–10:40 *Taming Pre-trained Language Models with N-gram Representations for Low-Resource Domain Adaptation*
Shizhe Diao, Ruijia Xu, Hongjin Su, Yilei Jiang, Yan Song and Tong Zhang

10:40–10:50 *ERICA: Improving Entity and Relation Understanding for Pre-trained Language Models via Contrastive Learning*
Yujia Qin, Yankai Lin, Ryuichi Takanobu, Zhiyuan Liu, Peng Li, Heng Ji, Minlie Huang, Maosong Sun and Jie Zhou

10:50–10:57 *Zero-shot Fact Verification by Claim Generation*
Liangming Pan, Wenhu Chen, Wenhan Xiong, Min-Yen Kan and William Yang Wang

Session 9E: Sentiment Analysis, Stylistic Analysis, and Argument Mining 3

10:00–10:10 *Position Bias Mitigation: A Knowledge-Aware Graph Model for Emotion Cause Extraction*
Hanqi Yan, Lin Gui, Gabriele Pergola and Yulan He

10:10–10:20 *Every Bite Is an Experience: Key Point Analysis of Business Reviews*
Roy Bar-Haim, Lilach Eden, Yoav Kantor, Roni Friedman and Noam Slonim

10:20–10:30 *Structured Sentiment Analysis as Dependency Graph Parsing*
Jeremy Barnes, Robin Kurtz, Stephan Oepen, Lilja Øvrelid and Erik Velldal

10:30–10:37 *Thank you BART! Rewarding Pre-Trained Models Improves Formality Style Transfer*
Huiyuan Lai, Antonio Toral and Malvina Nissim

10:37–10:44 *Deep Context- and Relation-Aware Learning for Aspect-based Sentiment Analysis*
Shinhyeok Oh, Dongyub Lee, Taesun Whang, IlNam Park, Seo Gaeun, EungGyun Kim and Harksoo Kim

10:44–10:51 *Towards Generative Aspect-Based Sentiment Analysis*
Wenxuan Zhang, Xin Li, Yang Deng, Lidong Bing and Wai Lam

Session 10A: Machine Translation and Multilinguality 6

11:00–11:10 *Consistency Regularization for Cross-Lingual Fine-Tuning*
Bo Zheng, Li Dong, Shaohan Huang, Wenhui Wang, Zewen Chi, Saksham Singhal, Wanxiang Che, Ting Liu, Xia Song and Furu Wei

11:10–11:20 *Improving Pretrained Cross-Lingual Language Models via Self-Labeled Word Alignment*
Zewen Chi, Li Dong, Bo Zheng, Shaohan Huang, Xian-Ling Mao, Heyan Huang and Furu Wei

11:20–11:30 *Rejuvenating Low-Frequency Words: Making the Most of Parallel Data in Non-Autoregressive Translation*
Liang Ding, Longyue Wang, Xuebo Liu, Derek F. Wong, Dacheng Tao and Zhaopeng Tu

11:30–11:40 *G-Transformer for Document-Level Machine Translation*
Guangsheng Bao, Yue Zhang, Zhiyang Teng, Boxing Chen and Weihua Luo

Tuesday, August 3, 2021 (all times UTC+0) (continued)

11:40–11:50 *Prevent the Language Model from being Overconfident in Neural Machine Translation*
Mengqi Miao, Fandong Meng, Yijin Liu, Xiao-Hua Zhou and Jie Zhou

11:50–11:57 *Bilingual Mutual Information Based Adaptive Training for Neural Machine Translation*
Yangyifan Xu, Yijin Liu, Fandong Meng, Jiajun Zhang, Jinan Xu and Jie Zhou

Session 10B: Dialog and Interactive Systems 5

11:00–11:10 *Towards Emotional Support Dialog Systems*
Siyang Liu, Chujie Zheng, Orianna Demasi, Sahand Sabour, Yu Li, Zhou Yu, Yong Jiang and Minlie Huang

11:10–11:20 *Novel Slot Detection: A Benchmark for Discovering Unknown Slot Types in the Task-Oriented Dialogue System*
Yanan Wu, Zhiyuan Zeng, Keqing He, Hong Xu, Yuanmeng Yan, Huixing Jiang and Weiran Xu

11:20–11:30 *GTM: A Generative Triple-wise Model for Conversational Question Generation*
Lei Shen, Fandong Meng, Jinchao Zhang, Yang Feng and Jie Zhou

11:30–11:40 *Diversifying Dialog Generation via Adaptive Label Smoothing*
Yida Wang, Yinhe Zheng, Yong Jiang and Minlie Huang

11:40–11:50 *Out-of-Scope Intent Detection with Self-Supervision and Discriminative Training*
Li-Ming Zhan, Haowen Liang, Bo LIU, Lu Fan, Xiao-Ming Wu and Albert Y.S. Lam

11:50–11:57 *Continual Learning for Task-oriented Dialogue System with Iterative Network Pruning, Expanding and Masking*
Binzong Geng, Fajie Yuan, Qiancheng Xu, Ying Shen, Ruifeng Xu and Min Yang

Session 10C: Information Extraction 5

11:00–11:10 *Document-level Event Extraction via Heterogeneous Graph-based Interaction Model with a Tracker*
Runxin Xu, Tianyu Liu, Lei Li and Baobao Chang

11:10–11:20 *Nested Named Entity Recognition via Explicitly Excluding the Influence of the Best Path*
Yiran Wang, Hiroyuki Shindo, Yuji Matsumoto and Taro Watanabe

11:20–11:30 *LearnDA: Learnable Knowledge-Guided Data Augmentation for Event Causality Identification*
Xinyu Zuo, Pengfei Cao, Yubo Chen, Kang Liu, Jun Zhao, Weihua Peng and Yuguang Chen

11:30–11:40 *Revisiting the Negative Data of Distantly Supervised Relation Extraction*
Chenhao Xie, Jiaqing Liang, Jingping Liu, Chengsong Huang, Wenhao Huang and Yanghua Xiao

11:40–11:50 *Knowing the No-match: Entity Alignment with Dangling Cases*
Zequn Sun, Muhao Chen and Wei Hu

11:50–11:57 *TIMERS: Document-level Temporal Relation Extraction*
Puneet Mathur, Rajiv Jain, Franck Dernoncourt, Vlad Morariu, Quan Hung Tran and Dinesh Manocha

Session 10D: Phonology, Morphology and Word Segmentation 1

11:00–11:10 *Superbizarre Is Not Superb: Derivational Morphology Improves BERT's Interpretation of Complex Words*
Valentin Hofmann, Janet Pierrehumbert and Hinrich Schütze

11:10–11:20 *Optimizing over Subsequences Generates Context-Sensitive Languages*
Andrew Lamont

11:20–11:30 *Morphology Matters: A Multilingual Language Modeling Analysis*
Hyunji Hayley Park, Katherine J. Zhang, Coleman Haley, Kenneth Steimel, Han Liu and Lane Schwartz

11:30–11:37 *Improving Arabic Diacritization with Regularized Decoding and Adversarial Training*
Han Qin, Guimin Chen, Yuanhe Tian and Yan Song

Tuesday, August 3, 2021 (all times UTC+0) (continued)

11:37–11:44 *When is Char Better Than Subword: A Systematic Study of Segmentation Algorithms for Neural Machine Translation*
Jiahuan Li, Yutong Shen, Shujian Huang, Xinyu Dai and Jiajun CHEN

11:44–11:51 *More than Text: Multi-modal Chinese Word Segmentation*
Dong Zhang, Zheng Hu, Shoushan Li, Hanqian Wu, Qiaoming Zhu and Guodong Zhou

Session 10E: Semantics: Lexical Semantics 1

11:00–11:10 *BERT is to NLP what AlexNet is to CV: Can Pre-Trained Language Models Identify Analogies?*
Asahi Ushio, Luis Espinosa Anke, Steven Schockaert and Jose Camacho-Collados

11:10–11:20 *Exploring the Representation of Word Meanings in Context: A Case Study on Homonymy and Synonymy*
Marcos Garcia

11:20–11:30 *Measuring Fine-Grained Domain Relevance of Terms: A Hierarchical Core-Fringe Approach*
Jie Huang, Kevin Chang, JinJun Xiong and Wen-mei Hwu

11:30–11:37 *A Mixture-of-Experts Model for Antonym-Synonym Discrimination*
Zhipeng Xie and Nan Zeng

11:37–11:44 *Learning Domain-Specialised Representations for Cross-Lingual Biomedical Entity Linking*
Fangyu Liu, Ivan Vulić, Anna Korhonen and Nigel Collier

11:44–11:51 *A Cluster-based Approach for Improving Isotropy in Contextual Embedding Space*
Sara Rajaee and Mohammad Taher Pilehvar

14:00–15:30 ***Business meeting and Green NLP panel***

15:30–16:30 ***Keynote 3. Christopher Potts: Reliable Characterizations of NLP Systems as a Social Responsibility***

Session 11A: Dialog and Interactive Systems 6

16:30–16:40 *HERALD: An Annotation Efficient Method to Detect User Disengagement in Social Conversations*
Weixin Liang, Kai-Hui Liang and Zhou Yu

16:40–16:50 *Value-Agnostic Conversational Semantic Parsing*
Emmanouil Antonios Platanios, Adam Pauls, Subhro Roy, Yuchen Zhang, Alexander Kyte, Alan Guo, Sam Thomson, Jayant Krishnamurthy, Jason Wolfe, Jacob Andreas and Dan Klein

16:50–17:00 *MPC-BERT: A Pre-Trained Language Model for Multi-Party Conversation Understanding*
Jia-Chen Gu, Chongyang Tao, Zhenhua Ling, Can Xu, Xiubo Geng and Daxin Jiang

17:00–17:10 *Best of Both Worlds: Making High Accuracy Non-incremental Transformer-based Disfluency Detection Incremental*
Morteza Rohanian and Julian Hough

17:10–17:20 *NeuralWOZ: Learning to Collect Task-Oriented Dialogue via Model-Based Simulation*
Sungdong Kim, Minsuk Chang and Sang-Woo Lee

17:20–17:27 *Unsupervised Enrichment of Persona-grounded Dialog with Background Stories*
Bodhisattwa Prasad Majumder, Taylor Berg-Kirkpatrick, Julian McAuley and Harsh Jhamtani

Session 11B: Linguistic Theories, Cognitive Modeling and Psycholinguistics 1

16:30–16:40 *CDRNN: Discovering Complex Dynamics in Human Language Processing*
Cory Shain

16:40–16:50 *Structural Guidance for Transformer Language Models*
Peng Qian, Tahira Naseem, Roger Levy and Ramón Fernandez Astudillo

16:50–17:00 *Surprisal Estimators for Human Reading Times Need Character Models*
Byung-Doh Oh, Christian Clark and William Schuler

17:00–17:10 *CogAlign: Learning to Align Textual Neural Representations to Cognitive Language Processing Signals*
Yuqi Ren and Deyi Xiong

17:10–17:20 *Formal Basis of a Language Universal*
Milos Stanojevic and Mark Steedman

17:20–17:27 *Beyond Laurel/Yanny: An Autoencoder-Enabled Search for Polyperceivable Audio*
Kartik Chandra, Chuma Kabaghe and Gregory Valiant

Session 11C: Machine Learning for NLP 5

16:30–16:40 *Self-Attention Networks Can Process Bounded Hierarchical Languages*
Shunyu Yao, Binghui Peng, Christos Papadimitriou and Karthik Narasimhan

16:40–16:50 *TextSETTR: Few-Shot Text Style Extraction and Tunable Targeted Restyling*
Parker Riley, Noah Constant, Mandy Guo, Girish Kumar, David Uthus and Zarana Parekh

16:50–17:00 *H-Transformer-1D: Fast One-Dimensional Hierarchical Attention for Sequences*
Zhenhai Zhu and Radu Soricut

17:00–17:10 *Making Pre-trained Language Models Better Few-shot Learners*
Tianyu Gao, Adam Fisch and Danqi Chen

17:10–17:20 *A Sweet Rabbit Hole by DARCY: Using Honeypots to Detect Universal Trigger's Adversarial Attacks*
Thai Le, Noseong Park and Dongwon Lee

17:20–17:27 *Don't Let Discourse Confine Your Model: Sequence Perturbations for Improved Event Language Models*
Mahnaz Koupaee, Greg Durrett, Nathanael Chambers and Niranjan Balasubramanian

Session 11D: Information Retrieval and Text Mining 1

16:30–16:40 *Towards Propagation Uncertainty: Edge-enhanced Bayesian Graph Convolutional Networks for Rumor Detection*
Lingwei Wei, Dou Hu, Wei Zhou, Zhaojuan Yue and Songlin Hu

16:40–16:50 *Label-Specific Dual Graph Neural Network for Multi-Label Text Classification*
Qianwen Ma, Chunyuan Yuan, Wei Zhou and Songlin Hu

16:50–17:00 *TAN-NTM: Topic Attention Networks for Neural Topic Modeling*
Madhur Panwar, Shashank Shailabh, Milan Aggarwal and Balaji Krishnamurthy

17:00–17:10 *Cross-language Sentence Selection via Data Augmentation and Rationale Training*
Yanda Chen, Chris Kedzie, Suraj Nair, Petra Galuscakova, Rui Zhang, Douglas Oard and Kathleen McKeown

17:10–17:20 *A Neural Model for Joint Document and Snippet Ranking in Question Answering for Large Document Collections*
Dimitris Pappas and Ion Androutsopoulos

17:20–17:27 *The Curse of Dense Low-Dimensional Information Retrieval for Large Index Sizes*
Nils Reimers and Iryna Gurevych

Session 11E: Discourse and Pragmatics 1

16:30–16:40 *W-RST: Towards a Weighted RST-style Discourse Framework*
Patrick Huber, Wen Xiao and Giuseppe Carenini

16:40–16:50 *ABCD: A Graph Framework to Convert Complex Sentences to a Covering Set of Simple Sentences*
Yanjun Gao, Ting-Hao Huang and Rebecca J. Passonneau

16:50–17:00 *Which Linguist Invented the Lightbulb? Presupposition Verification for Question-Answering*
Najoung Kim, Ellie Pavlick, Burcu Karagol Ayan and Deepak Ramachandran

17:00–17:10 *Adversarial Learning for Discourse Rhetorical Structure Parsing*
Longyin Zhang, Fang Kong and Guodong Zhou

Tuesday, August 3, 2021 (all times UTC+0) (continued)

17:10–17:20 *Exploring Discourse Structures for Argument Impact Classification*
Xin Liu, Jiefu Ou, Yangqiu Song and Xin Jiang

Session 12A: Machine Translation and Multilinguality 7

23:00–23:10 *Point, Disambiguate and Copy: Incorporating Bilingual Dictionaries for Neural Machine Translation*
Tong Zhang, Long Zhang, Wei Ye, Bo Li, Jinan Sun, Xiaoyu Zhu, Wen Zhao and Shikun Zhang

23:10–23:20 *VECO: Variable and Flexible Cross-lingual Pre-training for Language Understanding and Generation*
Fuli Luo, Wei Wang, Jiahao Liu, Yijia Liu, Bin Bi, Songfang Huang, Fei Huang and Luo Si

23:20–23:30 *A unified approach to sentence segmentation of punctuated text in many languages*
Rachel Wicks and Matt Post

23:30–23:40 *Towards User-Driven Neural Machine Translation*
Huan Lin, Liang Yao, Baosong Yang, Dayiheng Liu, Haibo Zhang, Weihua Luo, Degen Huang and Jinsong Su

23:40–23:50 *End-to-End Lexically Constrained Machine Translation for Morphologically Rich Languages*
Josef Jon, João Paulo Aires, Dusan Varis and Ondřej Bojar

23:50–23:57 *Cross-lingual Text Classification with Heterogeneous Graph Neural Network*
Ziyun Wang, Xuan Liu, Peiji Yang, Shixing Liu and zhisheng wang

Session 12B: Resources and Evaluation 4

23:00–23:10 *Handling Extreme Class Imbalance in Technical Logbook Datasets*
Farhad Akhbardeh, Cecilia Ovesdotter Alm, Marcos Zampieri and Travis Desell

23:10–23:20 *ILDC for CJPE: Indian Legal Documents Corpus for Court Judgment Prediction and Explanation*
Vijit Malik, Rishabh Sanjay, Shubham Kumar Nigam, Kripabandhu Ghosh, Shouvik Kumar Guha, Arnab Bhattacharya and Ashutosh Modi

23:20–23:30 *Supporting Cognitive and Emotional Empathic Writing of Students*
Thiemo Wambsganss, Christina Niklaus, Matthias Söllner, Siegfried Handschuh and Jan Marco Leimeister

23:30–23:40 *Context-aware Adversarial Training for Name Regularity Bias in Named Entity Recognition*
Abbas Ghaddar, Philippe Langlais, Ahmad Rashid and Mehdi Rezagholizadeh

23:40–23:50 *SummEval: Re-evaluating Summarization Evaluation*
Alex Fabbri, Wojciech Kryscinski, Bryan McCann, Caiming Xiong and Richard Socher

23:50–24:00 *Towards Question-Answering as an Automatic Metric for Evaluating the Content Quality of a Summary*
Daniel Deutsch, Tania Bedrax-Weiss and Dan Roth

Session 12C: Question Answering 3

23:00–23:10 *Dual Reader-Parser on Hybrid Textual and Tabular Evidence for Open Domain Question Answering*
Alexander Hanbo Li, Patrick Ng, Peng Xu, Henghui Zhu, Zhiguo Wang and Bing Xiang

23:10–23:20 *Generation-Augmented Retrieval for Open-Domain Question Answering*
Yuning Mao, Pengcheng He, Xiaodong Liu, Yelong Shen, Jianfeng Gao, Jiawei Han and Weizhu Chen

23:20–23:30 *Check It Again:Progressive Visual Question Answering via Visual Entailment*
Qingyi Si, Zheng Lin, Ming yu Zheng, Peng Fu and Weiping Wang

23:30–23:40 *A Mutual Information Maximization Approach for the Spurious Solution Problem in Weakly Supervised Question Answering*
Zhihong Shao, Lifeng Shang, Qun Liu and Minlie Huang

23:40–23:50 *Relevance-guided Supervision for OpenQA with ColBERT*
Omar Khattab, Christopher Potts and Matei Zaharia

23:50–23:57 *Towards more equitable question answering systems: How much more data do you need?*
Arnab Debnath, Navid Rajabi, Fardina Fathmiul Alam and Antonios Anastasopoulos

Session 12D: Theme 1

23:00–23:10 *Breaking Down Walls of Text: How Can NLP Benefit Consumer Privacy?*
Abhilasha Ravichander, Alan W Black, Thomas Norton, Shomir Wilson and Norman Sadeh

23:10–23:20 *Supporting Land Reuse of Former Open Pit Mining Sites using Text Classification and Active Learning*
Christopher Schröder, Kim Bürgl, Yves Annanias, Andreas Niekler, Lydia Müller, Daniel Wiegreffe, Christian Bender, Christoph Mengs, Gerik Scheuermann and Gerhard Heyer

23:20–23:30 *Reliability Testing for Natural Language Processing Systems*
Samson Tan, Shafiq Joty, Kathy Baxter, Araz Taeihagh, Gregory A. Bennett and Min-Yen Kan

23:30–23:40 *Learning Language and Multimodal Privacy-Preserving Markers of Mood from Mobile Data*
Paul Pu Liang, Terrance Liu, Anna Cai, Michal Muszynski, Ryo Ishii, Nick Allen, Randy Auerbach, David Brent, Ruslan Salakhutdinov and Louis-Philippe Morency

23:40–23:50 *Anonymisation Models for Text Data: State of the art, Challenges and Future Directions*
Pierre Lison, Ildikó Pilán, David Sanchez, Montserrat Batet and Lilja Øvrelid

Wednesday, August 4, 2021 (all times UTC+0)

Poster 2A: Semantics: Sentence-level Semantics, Textual Inference and Other areas

0:00–2:00 *End-to-End AMR Corefencence Resolution*
Qiankun Fu, Linfeng Song, Wenyu Du and Yue Zhang

Poster 2B: Linguistic Theories, Cognitive Modeling and Psycholinguistics

0:00–2:00 *How is BERT surprised? Layerwise detection of linguistic anomalies*
Bai Li, Zining Zhu, Guillaume Thomas, Yang Xu and Frank Rudzicz

0:00–2:00 *Psycholinguistic Tripartite Graph Network for Personality Detection*
Tao Yang, Feifan Yang, Haolan Ouyang and Xiaojun Quan

Poster 2C: Semantics: Lexical Semantics

0:00–2:00 *Verb Metaphor Detection via Contextual Relation Learning*
Wei Song, Shuhui Zhou, Ruiji Fu, Ting Liu and Lizhen Liu

Poster 2D: Speech and Multimodality

0:00–2:00 *Improving Speech Translation by Understanding and Learning from the Auxiliary Text Translation Task*
Yun Tang, Juan Pino, Xian Li, Changhan Wang and Dmitriy Genzel

Poster 2E: Ethics in NLP

0:00–2:00 *Probing Toxic Content in Large Pre-Trained Language Models*
Nedjma Ousidhoum, Xinran Zhao, Tianqing Fang, Yangqiu Song and Dit-Yan Yeung

0:00–2:00 *Societal Biases in Language Generation: Progress and Challenges*
Emily Sheng, Kai-Wei Chang, Prem Natarajan and Nanyun Peng

Poster 2F: Interpretability and Analysis of Models for NLP

0:00–2:00 *Reservoir Transformers*
Sheng Shen, Alexei Baevski, Ari Morcos, Kurt Keutzer, Michael Auli and Douwe Kiela

Poster 2G: Machine Learning for NLP

0:00–2:00 *Subsequence Based Deep Active Learning for Named Entity Recognition*
Puria Radmard, Yassir Fathullah and Aldo Lipani

0:00–2:00 *Convolutions and Self-Attention: Re-interpreting Relative Positions in Pre-trained Language Models*
Tyler Chang, Yifan Xu, Weijian Xu and Zhuowen Tu

0:00–2:00 *BinaryBERT: Pushing the Limit of BERT Quantization*
Haoli Bai, Wei Zhang, Lu Hou, Lifeng Shang, Jin JIN, Xin Jiang, Qun Liu, Michael Lyu and Irwin King

0:00–2:00 *Embedding Time Differences in Context-sensitive Neural Networks for Learning Time to Event*
Nazanin Dehghani, Hassan Hajipoor and Hadi Amiri

0:00–2:00 *Are Pretrained Convolutions Better than Pretrained Transformers?*
Yi Tay, Mostafa Dehghani, Jai Prakash Gupta, Vamsi Aribandi, Dara Bahri, Zhen Qin and Donald Metzler

0:00–2:00 *PairRE: Knowledge Graph Embeddings via Paired Relation Vectors*
Linlin Chao, Jianshan He, Taifeng Wang and Wei Chu

0:00–2:00 *Improving Compositional Generalization in Classification Tasks via Structure Annotations*
Juyong Kim, Pradeep Ravikumar, Joshua Ainslie and Santiago Ontanon

0:00–2:00 *Learning to Generate Task-Specific Adapters from Task Description*
Qinyuan Ye and Xiang Ren

0:00–2:00 *Hierarchy-aware Label Semantics Matching Network for Hierarchical Text Classification*
Haibin Chen, Qianli Ma, Zhenxi Lin and Jiangyue Yan

0:00–2:00 *HiddenCut: Simple Data Augmentation for Natural Language Understanding with Better Generalizability*
Jiaao Chen, Dinghan Shen, Weizhu Chen and Diyi Yang

0:00–2:00 *Efficient Content-Based Sparse Attention with Routing Transformers*
Aurko Roy, Mohammad Saffar, Ashish Vaswani and David Grangier

Poster 2H: Dialog and Interactive Systems

0:00–2:00 *Neural Stylistic Response Generation with Disentangled Latent Variables*
Qingfu Zhu, Wei-Nan Zhang, Ting Liu and William Yang Wang

0:00–2:00 *Intent Classification and Slot Filling for Privacy Policies*
Wasi Ahmad, Jianfeng Chi, Tu Le, Thomas Norton, Yuan Tian and Kai-Wei Chang

0:00–2:00 *RADDLE: An Evaluation Benchmark and Analysis Platform for Robust Task-oriented Dialog Systems*
Baolin Peng, Chunyuan Li, Zhu Zhang, Chenguang Zhu, Jinchao Li and Jianfeng Gao

0:00–2:00 *QA-Driven Zero-shot Slot Filling with Weak Supervision Pretraining*
Xinya Du, Luheng He, Qi Li, Dian Yu, Panupong Pasupat and Yuan Zhang

0:00–2:00 *Domain-Adaptive Pretraining Methods for Dialogue Understanding*
Han Wu, Kun Xu, Linfeng Song, Lifeng Jin, Haisong Zhang and Linqi Song

0:00–2:00 *Semantic Representation for Dialogue Modeling*
Xuefeng Bai, Yulong Chen, Linfeng Song and Yue Zhang

0:00–2:00 *A Pre-training Strategy for Zero-Resource Response Selection in Knowledge-Grounded Conversations*
Chongyang Tao, Changyu Chen, Jiazhan Feng, Ji-Rong Wen and Rui Yan

0:00–2:00 *SOLOIST: Building Task Bots at Scale with Transfer Learning and Machine Teaching*
Baolin Peng, Chunyuan Li, Jinchao Li, Shahin Shayandeh, Lars Liden and Jianfeng Gao

Poster 2I: Information Retrieval and Text Mining

0:00–2:00 *Dependency-driven Relation Extraction with Attentive Graph Convolutional Networks*
Yuanhe Tian, Guimin Chen, Yan Song and Xiang Wan

0:00–2:00 *Evaluating Entity Disambiguation and the Role of Popularity in Retrieval-Based NLP*
Anthony Chen, Pallavi Gudipati, Shayne Longpre, Xiao Ling and Sameer Singh

Poster 2J: Resources and Evaluation

0:00–2:00 *Targeting the Benchmark: On Methodology in Current Natural Language Processing Research*
David Schlangen

0:00–2:00 *Evaluation Examples are not Equally Informative: How should that change NLP Leaderboards?*
Pedro Rodriguez, Joe Barrow, Alexander Miserlis Hoyle, John P. Lalor, Robin Jia and Jordan Boyd-Graber

Poster 2K: Computational Social Science and Cultural Analytics

0:00–2:00 *Claim Matching Beyond English to Scale Global Fact-Checking*
Ashkan Kazemi, Kiran Garimella, Devin Gaffney and Scott Hale

0:00–2:00 *X-Fact: A New Benchmark Dataset for Multilingual Fact Checking*
Ashim Gupta and Vivek Srikumar

Poster 2L: Machine Translation and Multilinguality

0:00–2:00 *SemFace: Pre-training Encoder and Decoder with a Semantic Interface for Neural Machine Translation*
Shuo Ren, Long Zhou, Shujie Liu, Furu Wei, Ming Zhou and Shuai Ma

0:00–2:00 *Energy-Based Reranking: Improving Neural Machine Translation Using Energy-Based Models*
Sumanta Bhattacharyya, Amirmohammad Rooshenas, Subhajit Naskar, Simeng Sun, Mohit Iyyer and Andrew McCallum

0:00–2:00 *nmT5 - Is parallel data still relevant for pre-training massively multilingual language models?*
Mihir Kale, Aditya Siddhant, Rami Al-Rfou, Linting Xue, Noah Constant and Melvin Johnson

0:00–2:00 *Syntax-augmented Multilingual BERT for Cross-lingual Transfer*
Wasi Ahmad, Haoran Li, Kai-Wei Chang and Yashar Mehdad

0:00–2:00 *How to Adapt Your Pretrained Multilingual Model to 1600 Languages*
Abteen Ebrahimi and Katharina Kann

0:00–2:00 *Synthesizing Parallel Data of User-Generated Texts with Zero-Shot Neural Machine Translation*
Benjamin Marie and Atsushi Fujita

Poster 2M: Syntax: Tagging, Chunking, and Parsing

0:00–2:00 *Weakly Supervised Named Entity Tagging with Learnable Logical Rules*
Jiacheng Li, Haibo Ding, Jingbo Shang, Julian McAuley and Zhe Feng

Poster 2N: NLP Applications

0:00–2:00 *Question Generation for Adaptive Education*
Megha Srivastava and Noah Goodman

Poster 2O: Language Generation

0:00–2:00 *Prefix-Tuning: Optimizing Continuous Prompts for Generation*
Xiang Lisa Li and Percy Liang

0:00–2:00 *One2Set: Generating Diverse Keyphrases as a Set*
Jiacheng Ye, Tao Gui, Yichao Luo, Yige Xu and Qi Zhang

0:00–2:00 *A Simple Recipe for Multilingual Grammatical Error Correction*
Sascha Rothe, Jonathan Mallinson, Eric Malmi, Sebastian Krause and Aliaksei Severyn

0:00–2:00 *Continuous Language Generative Flow*
Zineng Tang, Shiyue Zhang, Hyounghun Kim and Mohit Bansal

0:00–2:00 *RYANSQL: Recursively Applying Sketch-based Slot Fillings for Complex Text-to-SQL in Cross-Domain Databases*
DongHyun Choi, Myeong Cheol Shin, EungGyun Kim and Dong Ryeol Shin

Poster 2P: Summarization

0:00–2:00 *TWAG: A Topic-Guided Wikipedia Abstract Generator*
Fangwei Zhu, Shangqing Tu, Jiaxin Shi, Juanzi Li, Lei Hou and Tong Cui

Poster 2Q: Question Answering

0:00–2:00 *Towards Visual Question Answering on Pathology Images*
Xuehai He, Zhuo Cai, Wenlan Wei, Yichen Zhang, Luntian Mou, Eric Xing and Pengtao Xie

0:00–2:00 *ForecastQA: A Question Answering Challenge for Event Forecasting with Temporal Text Data*
Woojeong Jin, Rahul Khanna, Suji Kim, Dong-Ho Lee, Fred Morstatter, Aram Galstyan and Xiang Ren

0:00–2:00 *Recursive Tree-Structured Self-Attention for Answer Sentence Selection*
Khalil Mrini, Emilia Farcas and Ndapa Nakashole

Poster 2R: Language Grounding to Vision, Robotics and Beyond

0:00–2:00 *Efficient Text-based Reinforcement Learning by Jointly Leveraging State and Commonsense Graph Representations*
Keerthiram Murugesan, Mattia Atzeni, Pavan Kapanipathi, Kartik Talamadupula, Mrinmaya Sachan and Murray Campbell

0:00–2:00 *mTVR: Multilingual Moment Retrieval in Videos*
Jie Lei, Tamara Berg and Mohit Bansal

Poster 2S: Information Extraction

0:00–2:00 *How Knowledge Graph and Attention Help? A Qualitative Analysis into Bag-level Relation Extraction*
Zikun Hu, Yixin Cao, Lifu Huang and Tat-Seng Chua

0:00–2:00 *Trigger is Not Sufficient: Exploiting Frame-aware Knowledge for Implicit Event Argument Extraction*
Kaiwen Wei, Xian Sun, Zequn Zhang, Jingyuan Zhang, Guo Zhi and li jin

0:00–2:00 *Element Intervention for Open Relation Extraction*
Fangchao Liu, Lingyong Yan, Hongyu Lin, Xianpei Han and Le Sun

0:00–2:00 *Explicitly Capturing Relations between Entity Mentions via Graph Neural Networks for Domain-specific Named Entity Recognition*
Pei Chen, Haibo Ding, Jun Araki and Ruihong Huang

0:00–2:00 *AdaTag: Multi-Attribute Value Extraction from Product Profiles with Adaptive Decoding*
Jun Yan, Nasser Zalmout, Yan Liang, Christan Grant, Xiang Ren and Xin Luna Dong

0:00–2:00 *CoRI: Collective Relation Integration with Data Augmentation for Open Information Extraction*
Zhengbao Jiang, Jialong Han, BUNYAMIN SISMAN and Xin Luna Dong

0:00–2:00 *Benchmarking Scalable Methods for Streaming Cross Document Entity Coreference*
Robert L Logan IV, Andrew McCallum, Sameer Singh and Dan Bikel

0:00–2:00 *Search from History and Reason for Future: Two-stage Reasoning on Temporal Knowledge Graphs*
Zixuan Li, Xiaolong Jin, Saiping Guan, Wei Li, Jiafeng Guo, Yuanzhuo Wang and Xueqi Cheng

Poster 2T: Sentiment Analysis, Stylistic Analysis, and Argument Mining

0:00–2:00 *Employing Argumentation Knowledge Graphs for Neural Argument Generation*
Khalid Al Khatib, Lukas Trautner, Henning Wachsmuth, Yufang Hou and Benno Stein

0:00–2:00 *Learning Span-Level Interactions for Aspect Sentiment Triplet Extraction*
Lu Xu, Yew Ken Chia and Lidong Bing

Session 13A: Machine Translation and Multilinguality 8

08:00–08:10 *On Compositional Generalization of Neural Machine Translation*
Yafu Li, Yongjing Yin, Yulong Chen and Yue Zhang

08:10–08:20 *Mask-Align: Self-Supervised Neural Word Alignment*
Chi Chen, Maosong Sun and Yang Liu

08:20–08:30 *GWLAN: General Word-Level AutocompletioN for Computer-Aided Translation*
Huayang Li, Lemao Liu, Guoping Huang and Shuming Shi

08:30–08:37 *Improving Lexically Constrained Neural Machine Translation with Source-Conditioned Masked Span Prediction*
Gyubok Lee, Seongjun Yang and Edward Choi

Session 13B: Information Extraction 6

08:00–08:10 *De-biasing Distantly Supervised Named Entity Recognition via Causal Intervention*
Wenkai Zhang, Hongyu Lin, Xianpei Han and Le Sun

08:10–08:20 *A Span-Based Model for Joint Overlapped and Discontinuous Named Entity Recognition*
Fei Li, ZhiChao Lin, Meishan Zhang and Donghong Ji

08:20–08:30 *MLBiNet: A Cross-Sentence Collective Event Detection Network*
Dongfang Lou, Zhilin Liao, Shumin Deng, Ningyu Zhang and Huajun Chen

08:30–08:40 *Exploiting Document Structures and Cluster Consistencies for Event Coreference Resolution*
Hieu Minh Tran, Duy Phung and Thien Huu Nguyen

08:40–08:50 *StereoRel: Relational Triple Extraction from a Stereoscopic Perspective*
Xuetao Tian, Liping Jing, Lu He and Feng Liu

08:50–09:00 *Knowledge-Enriched Event Causality Identification via Latent Structure Induction Networks*
Pengfei Cao, Xinyu Zuo, Yubo Chen, Kang Liu, Jun Zhao, Yuguang Chen and Weihua Peng

Session 13C: Machine Learning for NLP 6

08:00–08:10 *Turn the Combination Lock: Learnable Textual Backdoor Attacks via Word Substitution*
Fanchao Qi, Yuan Yao, Sophia Xu, Zhiyuan Liu and Maosong Sun

08:10–08:20 *Parameter-Efficient Transfer Learning with Diff Pruning*
Demi Guo, Alexander Rush and Yoon Kim

08:20–08:30 *R2D2: Recursive Transformer based on Differentiable Tree for Interpretable Hierarchical Language Modeling*
Xiang Hu, Haitao Mi, Zujie Wen, Yafang Wang, Yi Su, Jing Zheng and Gerard de Melo

08:30–08:40 *Risk Minimization for Zero-shot Sequence Labeling*
Zechuan Hu, Yong Jiang, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang and Kewei Tu

08:40–08:50 *WARP: Word-level Adversarial ReProgramming*
Karen Hambardzumyan, Hrant Khachatrian and Jonathan May

08:50–09:00 *Lexicon Learning for Few Shot Sequence Modeling*
Ekin Akyurek and Jacob Andreas

Session 13D: NLP Applications 3

08:00–08:10 *Personalized Transformer for Explainable Recommendation*
Lei Li, Yongfeng Zhang and Li Chen

08:10–08:20 *Generating SOAP Notes from Doctor-Patient Conversations Using Modular Summarization Techniques*
Kundan Krishna, Sopan Khosla, Jeffrey Bigham and Zachary C. Lipton

08:20–08:30 *Tail-to-Tail Non-Autoregressive Sequence Prediction for Chinese Grammatical Error Correction*
Piji Li and Shuming Shi

08:30–08:40 *Early Detection of Sexual Predators in Chats*
Matthias Vogt, Ulf Leser and Alan Akbik

08:40–08:50 *Writing by Memorizing: Hierarchical Retrieval-based Medical Report Generation*
Xingyi Yang, Muchao Ye, Quanzeng You and Fenglong Ma

08:50–08:57 *Quotation Recommendation and Interpretation Based on Transformation from Queries to Quotations*
Lingzhi Wang, Xingshan Zeng and Kam-Fai Wong

Session 13E: Information Retrieval and Text Mining 2

08:00–08:10 *Concept-Based Label Embedding via Dynamic Routing for Hierarchical Text Classification*
Xuepeng Wang, Li Zhao, Bing Liu, Tao Chen, Feng Zhang and Di Wang

08:10–08:20 *VisualSparta: An Embarrassingly Simple Approach to Large-scale Text-to-Image Search with Weighted Bag-of-words*
Xiaopeng Lu, Tiancheng Zhao and Kyusong Lee

08:20–08:30 *Few-Shot Text Ranking with Meta Adapted Synthetic Weak Supervision*
Si Sun, Yingzhuo Qian, Zhenghao Liu, Chenyan Xiong, Kaitao Zhang, Jie Bao, Zhiyuan Liu and Paul Bennett

08:30–08:40 *Semi-Supervised Text Classification with Balanced Deep Representation Distributions*
Changchun Li, Ximing Li and Jihong Ouyang

08:40–08:50 *Improving Document Representations by Generating Pseudo Query Embeddings for Dense Retrieval*
Hongyin Tang, Xingwu Sun, Beihong Jin, Jingang Wang, Fuzheng Zhang and Wei Wu

08:50–08:57 *Pre-training is a Hot Topic: Contextualized Document Embeddings Improve Topic Coherence*
Federico Bianchi, Silvia Terragni and Dirk Hovy

Poster 3A: Semantics: Sentence-level Semantics, Textual Inference and Other areas

9:00–11:00 *ConSERT: A Contrastive Framework for Self-Supervised Sentence Representation Transfer*
Yuanmeng Yan, Rumei Li, Sirui Wang, Fuzheng Zhang, Wei Wu and Weiran Xu

9:00–11:00 *Exploring Dynamic Selection of Branch Expansion Orders for Code Generation*
Hui Jiang, Chulun Zhou, Fandong Meng, Biao Zhang, Jie Zhou, Degen Huang, Qingqiang Wu and Jinsong Su

9:00–11:00 *COINS: Dynamically Generating COntextualized Inference Rules for Narrative Story Completion*
Debjit Paul and Anette Frank

9:00–11:00 *Reasoning over Entity-Action-Location Graph for Procedural Text Understanding*
Hao Huang, Xiubo Geng, Jian Pei, Guodong Long and Daxin Jiang

Wednesday, August 4, 2021 (all times UTC+0) (continued)

9:00–11:00 *From Paraphrasing to Semantic Parsing: Unsupervised Semantic Parsing via Synchronous Semantic Decoding*
Shan Wu, Bo Chen, Chunlei Xin, Xianpei Han, Le Sun, Weipeng Zhang, Jiansong Chen, Fan Yang and Xunliang Cai

9:00–11:00 *Pre-training Universal Language Representation*
Yian Li and Hai Zhao

9:00–11:00 *Structural Pre-training for Dialogue Comprehension*
Zhuosheng Zhang and Hai Zhao

9:00–11:00 *AutoTinyBERT: Automatic Hyper-parameter Optimization for Efficient Pre-trained Language Models*
Yichun Yin, Cheng Chen, Lifeng Shang, Xin Jiang, Xiao Chen and Qun Liu

9:00–11:00 *Data Augmentation with Adversarial Training for Cross-Lingual NLI*
Xin Dong, Yaxin Zhu, Zuohui Fu, Dongkuan Xu and Gerard de Melo

9:00–11:00 *Input Representations for Parsing Discourse Representation Structures: Comparing English with Chinese*
Chunliu Wang, Rik van Noord, Arianna Bisazza and Johan Bos

9:00–11:00 *Code Generation from Natural Language with Less Prior Knowledge and More Monolingual Data*
Sajad Norouzi, Keyi Tang and Yanshuai Cao

9:00–11:00 *Bootstrapped Unsupervised Sentence Representation Learning*
Yan Zhang, Ruidan He, ZUOZHU LIU, Lidong Bing and Haizhou Li

9:00–11:00 *Learning Event Graph Knowledge for Abductive Reasoning*
Li Du, Xiao Ding, Ting Liu and Bing Qin

9:00–11:00 *Issues with Entailment-based Zero-shot Text Classification*
Tingting Ma, Jin-Ge Yao, Chin-Yew Lin and Tiejun Zhao

9:00–11:00 *Neural-Symbolic Commonsense Reasoner with Relation Predictors*
Farhad Moghimifar, Lizhen Qu, Terry Yue Zhuo, Gholamreza Haffari and Mahsa Baktashmotlagh

Poster 3B: Linguistic Theories, Cognitive Modeling and Psycholinguistics

9:00–11:00 *A Cognitive Regularizer for Language Modeling*
Jason Wei, Clara Meister and Ryan Cotterell

9:00–11:00 *What Motivates You? Benchmarking Automatic Detection of Basic Needs from Short Posts*
Sanja Stajner, Seren Yenikent, Bilal Ghanem and Marc Franco-Salvador

9:00–11:00 *Lower Perplexity is Not Always Human-Like*
Tatsuki Kuribayashi, Yohei Oseki, Takumi Ito, Ryo Yoshida, Masayuki Asahara and Kentaro Inui

Poster 3C: Semantics: Lexical Semantics

9:00–11:00 *Word Sense Disambiguation: Towards Interactive Context Exploitation from Both Word and Sense Perspectives*
Ming Wang and Yinglin Wang

9:00–11:00 *A Knowledge-Guided Framework for Frame Identification*
Xuefeng Su, Ru Li, Xiaoli Li, Jeff Z. Pan, Hu Zhang, Qinghua Chai and Xiaoqi Han

9:00–11:00 *Obtaining Better Static Word Embeddings Using Contextual Embedding Models*
Prakhar Gupta and Martin Jaggi

9:00–11:00 *Meta-Learning with Variational Semantic Memory for Word Sense Disambiguation*
Yingjun Du, Nithin Holla, Xiantong Zhen, Cees Snoek and Ekaterina Shutova

9:00–11:00 *LexFit: Lexical Fine-Tuning of Pretrained Language Models*
Ivan Vulić, Edoardo Maria Ponti, Anna Korhonen and Goran Glavaš

9:00–11:00 *Semantic Frame Induction using Masked Word Embeddings and Two-Step Clustering*
Kosuke Yamada, Ryohei Sasano and Koichi Takeda

9:00–11:00 *Multi-SimLex: A Large-Scale Evaluation of Multilingual and Cross-Lingual Lexical Semantic Similarity*
Ivan Vulic, Simon Baker, Edoardo Maria Ponti, Ulla Petti, Ira Leviant, Kelly Wing, Olga Majewska, Eden Bar, Matt Malone, Thierry Poibeau, Roi Reichart and Anna Korhonen

Poster 3D: Speech and Multimodality

9:00–11:00 *Text-Free Image-to-Speech Synthesis Using Learned Segmental Units*
Wei-Ning Hsu, David Harwath, Tyler Miller, Christopher Song and James Glass

9:00–11:00 *CTFN: Hierarchical Learning for Multimodal Sentiment Analysis Using Coupled-Translation Fusion Network*
Jiajia Tang, Kang Li, Xuanyu Jin, Andrzej Cichocki, Qibin Zhao and Wanzeng Kong

9:00–11:00 *Lightweight Adapter Tuning for Multilingual Speech Translation*
Hang Le, Juan Pino, Changhan Wang, Jiatao Gu, Didier Schwab and Laurent Besacier

Poster 3E: Interpretability and Analysis of Models for NLP

9:00–11:00 *Parameter Selection: Why We Should Pay More Attention to It*
Jie-Jyun Liu, Tsung-Han Yang, Si-An Chen and Chih-Jen Lin

9:00–11:00 *Positional Artefacts Propagate Through Masked Language Model Embeddings*
Ziyang Luo, Artur Kulmizev and Xiaoxi Mao

9:00–11:00 *Language Model Evaluation Beyond Perplexity*
Clara Meister and Ryan Cotterell

9:00–11:00 *Learning to Explain: Generating Stable Explanations Fast*
Xuelin Situ, Ingrid Zukerman, Cecile Paris, Sameen Maruf and Gholamreza Haffari

9:00–11:00 *StereoSet: Measuring stereotypical bias in pretrained language models*
Moin Nadeem, Anna Bethke and Siva Reddy

9:00–11:00 *Alignment Rationale for Natural Language Inference*
Zhongtao Jiang, Yuanzhe Zhang, Zhao Yang, Jun Zhao and Kang Liu

9:00–11:00 *Enabling Lightweight Fine-tuning for Pre-trained Language Model Compression based on Matrix Product Operators*
Peiyu Liu, Ze-Feng Gao, Wayne Xin Zhao, Zhi-Yuan Xie, Zhong-Yi Lu and Ji-Rong Wen

9:00–11:00 *On Sample Based Explanation Methods for NLP: Faithfulness, Efficiency and Semantic Evaluation*
Wei Zhang, Ziming Huang, Yada Zhu, Guangnan Ye, Xiaodong Cui and Fan Zhang

9:00–11:00 *CausaLM: Causal Model Explanation Through Counterfactual Language Models*
Amir Feder, Nadav Oved, Uri Shalit and Roi Reichart

9:00–11:00 *Amnesic Probing: Behavioral Explanation With Amnesic Counterfactuals*
Yanai Elazar, Shauli Ravfogel, Alon Jacovi and Yoav Goldberg

Poster 3F: Information Retrieval and Text Mining

9:00–11:00 *Syntax-Enhanced Pre-trained Model*
Zenan Xu, Daya Guo, Duyu Tang, Qinliang Su, Linjun Shou, Ming Gong, Wanjun Zhong, Xiaojun Quan, Daxin Jiang and Nan Duan

9:00–11:00 *Matching Distributions between Model and Data: Cross-domain Knowledge Distillation for Unsupervised Domain Adaptation*
Bo Zhang, Xiaoming Zhang, Yun Liu, Lei Cheng and Zhoujun Li

9:00–11:00 *Counterfactual Inference for Text Classification Debiasing*
Chen Qian, Fuli Feng, Lijie Wen, Chunping Ma and Pengjun Xie

9:00–11:00 *HieRec: Hierarchical User Interest Modeling for Personalized News Recommendation*
Tao Qi, Fangzhao Wu, Chuhan Wu, Peiru Yang, Yang Yu, Xing Xie and Yongfeng Huang

9:00–11:00 *Distinct Label Representations for Few-Shot Text Classification*
Sora Ohashi, Junya Takayama, Tomoyuki Kajiwara and Yuki Arase

9:00–11:00 *PP-Rec: News Recommendation with Personalized User Interest and Time-aware News Popularity*
Tao Qi, Fangzhao Wu, Chuhan Wu and Yongfeng Huang

9:00–11:00 *Article Reranking by Memory-Enhanced Key Sentence Matching for Detecting Previously Fact-Checked Claims*
Qiang Sheng, Juan Cao, Xueyao Zhang, Xirong Li and Lei Zhong

9:00–11:00 *Learning to Solve NLP Tasks in an Incremental Number of Languages*
Giuseppe Castellucci, Simone Filice, Danilo Croce and Roberto Basili

Poster 3G: Machine Learning for NLP

9:00–11:00 *Defense against Synonym Substitution-based Adversarial Attacks via Dirichlet Neighborhood Ensemble*
Yi Zhou, Xiaoqing Zheng, Cho-Jui Hsieh, Kai-Wei Chang and Xuanjing Huang

9:00–11:00 *Shortformer: Better Language Modeling using Shorter Inputs*
Ofir Press, Noah A. Smith and Mike Lewis

9:00–11:00 *BanditMTL: Bandit-based Multi-task Learning for Text Classification*
Yuren Mao, Zekai Wang, Weiwei Liu, Xuemin Lin and Wenbin Hu

9:00–11:00 *Unified Interpretation of Softmax Cross-Entropy and Negative Sampling: With Case Study for Knowledge Graph Embedding*
Hidetaka Kamigaito and Katsuhiko Hayashi

9:00–11:00 *Hi-Transformer: Hierarchical Interactive Transformer for Efficient and Effective Long Document Modeling*
Chuhan Wu, Fangzhao Wu, Tao Qi and Yongfeng Huang

9:00–11:00 *De-Confounded Variational Encoder-Decoder for Logical Table-to-Text Generation*
Wenqing Chen, Jidong Tian, Yitian Li, Hao He and Yaohui Jin

9:00–11:00 *Rethinking Stealthiness of Backdoor Attack against NLP Models*
Wenkai Yang, Yankai Lin, Peng Li, Jie Zhou and Xu Sun

9:00–11:00 *Crowdsourcing Learning as Domain Adaptation: A Case Study on Named Entity Recognition*
Xin Zhang, Guangwei Xu, Yueheng Sun, Meishan Zhang and Pengjun Xie

9:00–11:00 *Robust Transfer Learning with Pretrained Language Models through Adapters*
Wenjuan Han, Bo Pang and Ying Nian Wu

9:00–11:00 *Embracing Ambiguity: Shifting the Training Target of NLI Models*
Johannes Mario Meissner, Napat Thumwanit, Saku Sugawara and Akiko Aizawa

9:00–11:00 *Exploring Distantly-Labeled Rationales in Neural Network Models*
Quzhe Huang, Shengqi Zhu, Yansong Feng and Dongyan Zhao

9:00–11:00 *Learning to Perturb Word Embeddings for Out-of-distribution QA*
Seanie Lee, Minki Kang, Juho Lee and Sung Ju Hwang

Poster 3H: Dialog and Interactive Systems

9:00–11:00 *Maria: A Visual Experience Powered Conversational Agent*
Zujie Liang, Huang Hu, Can Xu, Chongyang Tao, Xiubo Geng, yining Chen, Fan Liang and Daxin Jiang

9:00–11:00 *A Human-machine Collaborative Framework for Evaluating Malevolence in Dialogues*
Yangjun Zhang, Pengjie Ren and Maarten de Rijke

9:00–11:00 *Generating Relevant and Coherent Dialogue Responses using Self-Separated Conditional Variational AutoEncoders*
Bin Sun, Shaoxiong Feng, Yiwei Li, Jiamou Liu and Kan Li

9:00–11:00 *Modeling Discriminative Representations for Out-of-Domain Detection with Supervised Contrastive Learning*
Zhiyuan Zeng, Keqing He, Yuanmeng Yan, Zijun Liu, Yanan Wu, Hong Xu, Huixing Jiang and Weiran Xu

9:00–11:00 *Learning to Ask Conversational Questions by Optimizing Levenshtein Distance*
Zhongkun Liu, Pengjie Ren, Zhumin CHEN, Zhaochun Ren, Maarten de Rijke and Ming Zhou

9:00–11:00 *DVD: A Diagnostic Dataset for Multi-step Reasoning in Video Grounded Dialogue*
Hung Le, Chinnadhurai Sankar, Seungwhan Moon, Ahmad Beirami, Alborz Geramifard and Satwik Kottur

9:00–11:00 *Preview, Attend and Review: Schema-Aware Curriculum Learning for Multi-Domain Dialogue State Tracking*
Yinpei Dai, Hangyu Li, Yongbin Li, Jian Sun, Fei Huang, Luo Si and Xiaodan Zhu

9:00–11:00 *On the Generation of Medical Dialogs for COVID-19*
Meng Zhou, Zechen Li, Bowen Tan, Guangtao Zeng, Wenmian Yang, Xuehai He, Zeqian Ju, Subrato Chakravorty, Shu Chen, Xingyi Yang, Yichen Zhang, Qingyang Wu, Zhou Yu, Kun Xu, Eric Xing and Pengtao Xie

9:00–11:00 *Constructing Multi-Modal Dialogue Dataset by Replacing Text with Semantically Relevant Images*
Nyoungwoo Lee, Suwon Shin, Jaegul Choo, Ho-Jin Choi and Sung-Hyon Myaeng

9:00–11:00 *MMGCN: Multimodal Fusion via Deep Graph Convolution Network for Emotion Recognition in Conversation*
Jingwen Hu, Yuchen Liu, Jinming Zhao and Qin Jin

9:00–11:00 *DynaEval: Unifying Turn and Dialogue Level Evaluation*
Chen Zhang, Yiming Chen, Luis Fernando D'Haro, Yan Zhang, Thomas Friedrichs, Grandee Lee and Haizhou Li

9:00–11:00 *Unsupervised Learning of KB Queries in Task-Oriented Dialogs*
Dinesh Raghu, Nikhil Gupta and Mausam

Poster 3I: Ethics in NLP

9:00–11:00 *Exposing the limits of Zero-shot Cross-lingual Hate Speech Detection*
Debora Nozza

Poster 3J: Resources and Evaluation

9:00–11:00 *CoSQA: 20,000+ Web Queries for Code Search and Question Answering*
Junjie Huang, Duyu Tang, Linjun Shou, Ming Gong, Ke Xu, Daxin Jiang, Ming Zhou and Nan Duan

9:00–11:00 *QED: A Framework and Dataset for Explanations in Question Answering*
Matthew Lamm, Jennimaria Palomaki, Chris Alberti, Daniel Andor, Eunsol Choi, Livio Baldini Soares and Michael Collins

Poster 3K: Machine Translation and Multilinguality

9:00–11:00 *Rewriter-Evaluator Architecture for Neural Machine Translation*
Yangming Li and Kaisheng Yao

9:00–11:00 *BERTTune: Fine-Tuning Neural Machine Translation with BERTScore*
Inigo Jauregi Unanue, Jacob Parnell and Massimo Piccardi

9:00–11:00 *Modeling Bilingual Conversational Characteristics for Neural Chat Translation*
Yunlong Liang, Fandong Meng, Yufeng Chen, Jinan Xu and Jie Zhou

9:00–11:00 *Importance-based Neuron Allocation for Multilingual Neural Machine Translation*
Wanying Xie, Yang Feng, Shuhao Gu and Dong Yu

9:00–11:00 *Transfer Learning for Sequence Generation: from Single-source to Multi-source*
Xuancheng Huang, jingfang xu, Maosong Sun and Yang Liu

9:00–11:00 *A Closer Look at Few-Shot Crosslingual Transfer: The Choice of Shots Matters*
Mengjie Zhao, Yi Zhu, Ehsan Shareghi, Ivan Vulić, Roi Reichart, Anna Korhonen and Hinrich Schütze

Poster 3L: Discourse and Pragmatics

9:00–11:00 *Coreference Reasoning in Machine Reading Comprehension*
Mingzhu Wu, Nafise Sadat Moosavi, Dan Roth and Iryna Gurevych

9:00–11:00 *Entity Enhancement for Implicit Discourse Relation Classification in the Biomedical Domain*
Wei Shi and Vera Demberg

9:00–11:00 *Adapting Unsupervised Syntactic Parsing Methodology for Discourse Dependency Parsing*
Liwen Zhang, Ge Wang, Wenjuan Han and Kewei Tu

9:00–11:00 *Unsupervised Pronoun Resolution via Masked Noun-Phrase Prediction*
Ming Shen, Pratyay Banerjee and Chitta Baral

Poster 3M: Syntax: Tagging, Chunking, and Parsing

9:00–11:00 *A Conditional Splitting Framework for Efficient Constituency Parsing*
Thanh-Tung Nguyen, Xuan-Phi Nguyen, Shafiq Joty and Xiaoli Li

9:00–11:00 *A Unified Generative Framework for Various NER Subtasks*
Hang Yan, Tao Gui, Junqi Dai, Qipeng Guo, Zheng Zhang and Xipeng Qiu

9:00–11:00 *An In-depth Study on Internal Structure of Chinese Words*
Chen Gong, Saihao Huang, Houquan Zhou, Zhenghua Li, Min Zhang, Zhefeng Wang, baoxing Huai and Nicholas Jing Yuan

9:00–11:00 *MulDA: A Multilingual Data Augmentation Framework for Low-Resource Cross-Lingual NER*
Linlin Liu, BOSHENG DING, Lidong Bing, Shafiq Joty, Luo Si and Chunyan Miao

9:00–11:00 *Lexicon Enhanced Chinese Sequence Labeling Using BERT Adapter*
Wei Liu, Xiyan Fu, Yue Zhang and Wenming Xiao

Poster 3N: NLP Applications

9:00–11:00 *Math Word Problem Solving with Explicit Numerical Values*
Qinzhuo Wu, Qi Zhang, Zhongyu Wei and Xuanjing Huang

9:00–11:00 *Neural-Symbolic Solver for Math Word Problems with Auxiliary Tasks*
Jinghui Qin, Xiaodan Liang, Yining Hong, Jianheng Tang and Liang Lin

9:00–11:00 *SMedBERT: A Knowledge-Enhanced Pre-trained Language Model with Structured Semantics for Medical Text Mining*
Taolin Zhang, Zerui Cai, Chengyu Wang, Minghui Qiu, Bite Yang and XIAOFENG HE

9:00–11:00 *What is Your Article Based On? Inferring Fine-grained Provenance*
Yi Zhang, Zachary Ives and Dan Roth

9:00–11:00 *Cross-modal Memory Networks for Radiology Report Generation*
Zhihong Chen, Yaling Shen, Yan Song and Xiang Wan

9:00–11:00 *Controversy and Conformity: from Generalized to Personalized Aggressiveness Detection*
Kamil Kanclerz, Alicja Figas, Marcin Gruza, Tomasz Kajdanowicz, Jan Kocon, Daria Puchalska and Przemyslaw Kazienko

9:00–11:00 *Multi-perspective Coherent Reasoning for Helpfulness Prediction of Multimodal Reviews*
Junhao Liu, Zhen Hai, Min Yang and Lidong Bing

9:00–11:00 *Instantaneous Grammatical Error Correction with Shallow Aggressive Decoding*
Xin Sun, Tao Ge, Furu Wei and Houfeng Wang

9:00–11:00 *Automatic ICD Coding via Interactive Shared Representation Networks with Self-distillation Mechanism*
Tong Zhou, Pengfei Cao, Yubo Chen, Kang Liu, Jun Zhao, Kun Niu, Weifeng Chong and Shengping Liu

9:00–11:00 *PHMOSpell: Phonological and Morphological Knowledge Guided Chinese Spelling Check*
Li Huang, Junjie Li, Weiwei Jiang, Zhiyu Zhang, Minchuan Chen, Shaojun Wang and Jing Xiao

Poster 3O: Language Generation

9:00–11:00 *Guiding the Growth: Difficulty-Controllable Question Generation through Step-by-Step Rewriting*
Yi Cheng, Siyao Li, Bang Liu, Ruihui Zhao, Sujian Li, Chenghua Lin and Yefeng Zheng

9:00–11:00 *Improving Encoder by Auxiliary Supervision Tasks for Table-to-Text Generation*
Liang Li, Can Ma, Yinliang Yue and Dayong Hu

9:00–11:00 *POS-Constrained Parallel Decoding for Non-autoregressive Generation*
Kexin Yang, Wenqiang Lei, Dayiheng Liu, Weizhen Qi and Jiancheng Lv

9:00–11:00 *Bridging Subword Gaps in Pretrain-Finetune Paradigm for Natural Language Generation*
Xin Liu, Baosong Yang, Dayiheng Liu, Haibo Zhang, Weihua Luo, Min Zhang, Haiying Zhang and Jinsong Su

9:00–11:00 *TGEA: An Error-Annotated Dataset and Benchmark Tasks for TextGeneration from Pretrained Language Models*
Jie He, Bo Peng, Yi Liao, Qun Liu and Deyi Xiong

9:00–11:00 *Addressing Semantic Drift in Generative Question Answering with Auxiliary Extraction*
Chenliang Li, Bin Bi, Ming Yan, Wei Wang and Songfang Huang

Poster 3P: Summarization

9:00–11:00 *Long-Span Summarization via Local Attention and Content Selection*
Potsawee Manakul and Mark Gales

9:00–11:00 *RepSum: Unsupervised Dialogue Summarization based on Replacement Strategy*
Xiyan Fu, Yating Zhang, Tianyi Wang, Xiaozhong Liu, Changlong Sun and Zhenglu Yang

9:00–11:00 *BASS: Boosting Abstractive Summarization with Unified Semantic Graph*
Wenhao Wu, Wei Li, Xinyan Xiao, Jiachen Liu, Ziqiang Cao, Sujian Li, Hua Wu and Haifeng Wang

9:00–11:00 *Capturing Relations between Scientific Papers: An Abstractive Model for Related Work Section Generation*
Xiuying Chen, Hind Alamro, Mingzhe Li, Shen Gao, Xiangliang Zhang, Dongyan Zhao and Rui Yan

9:00–11:00 *Focus Attention: Promoting Faithfulness and Diversity in Summarization*
Rahul Aralikatte, Shashi Narayan, Joshua Maynez, Sascha Rothe and Ryan McDonald

9:00–11:00 *Generating Query Focused Summaries from Query-Free Resources*
Yumo Xu and Mirella Lapata

9:00–11:00 *Demoting the Lead Bias in News Summarization via Alternating Adversarial Learning*
Linzi Xing, Wen Xiao and Giuseppe Carenini

Poster 3Q: Question Answering

9:00–11:00 *DuReader_robust: A Chinese Dataset Towards Evaluating Robustness and Generalization of Machine Reading Comprehension in Real-World Applications*
Hongxuan Tang, Hongyu Li, Jing Liu, Yu Hong, Hua Wu and Haifeng Wang

9:00–11:00 *Sequence to General Tree: Knowledge-Guided Geometry Word Problem Solving*
Shih-hung Tsai, Chao-Chun Liang, Hsin-Min Wang and Keh-Yih Su

9:00–11:00 *Robustifying Multi-hop QA through Pseudo-Evidentiality Training*
Kyungjae Lee, Seung-won Hwang, Sang-eun Han and Dohyeon Lee

9:00–11:00 *Multi-Scale Progressive Attention Network for Video Question Answering*
Zhicheng Guo, Jiaxuan Zhao, Licheng Jiao, Xu Liu and Lingling Li

9:00–11:00 *Efficient Passage Retrieval with Hashing for Open-domain Question Answering*
Ikuya Yamada, Akari Asai and Hannaneh Hajishirzi

9:00–11:00 *xMoCo: Cross Momentum Contrastive Learning for Open-Domain Question Answering*
Nan Yang, Furu Wei, Binxing Jiao, Daxing Jiang and Linjun Yang

9:00–11:00 *Learn to Resolve Conversational Dependency: A Consistency Training Framework for Conversational Question Answering*
Gangwoo Kim, Hyunjae Kim, Jungsoo Park and Jaewoo Kang

Poster 3R: Language Grounding to Vision, Robotics and Beyond

9:00–11:00 *PhotoChat: A Human-Human Dialogue Dataset With Photo Sharing Behavior For Joint Image-Text Modeling*
Xiaoxue Zang, Lijuan Liu, Maria Wang, Yang Song, Hao Zhang and Jindong Chen

9:00–11:00 *Good for Misconceived Reasons: An Empirical Revisiting on the Need for Visual Context in Multimodal Machine Translation*
Zhiyong Wu, Lingpeng Kong, Wei Bi, Xiang Li and Ben Kao

9:00–11:00 *Attend What You Need: Motion-Appearance Synergistic Networks for Video Question Answering*
Ahjeong Seo, Gi-Cheon Kang, Joonhan Park and Byoung-Tak Zhang

9:00–11:00 *Decoupling the Role of Data, Attention, and Losses in Multimodal Transformers*
Lisa Anne Hendricks, John Mellor, Rosalia Schneider, Jean-Baptiste Alayrac and Aida Nematzadeh

Poster 3S: Information Extraction

9:00–11:00 *BERTifying the Hidden Markov Model for Multi-Source Weakly Supervised Named Entity Recognition*
Yinghao Li, Pranav Shetty, Lucas Liu, Chao Zhang and Le Song

9:00–11:00 *CIL: Contrastive Instance Learning Framework for Distantly Supervised Relation Extraction*
Tao Chen, Haizhou Shi, Siliang Tang, Zhigang Chen, Fei Wu and Yueting Zhuang

9:00–11:00 *SENT: Sentence-level Distant Relation Extraction via Negative Training*
Ruotian Ma, Tao Gui, Linyang Li, Qi Zhang, Xuanjing Huang and Yaqian Zhou

9:00–11:00 *An End-to-End Progressive Multi-Task Learning Framework for Medical Named Entity Recognition and Normalization*
Baohang Zhou, Xiangrui Cai, Ying Zhang and Xiaojie Yuan

9:00–11:00 *PRGC: Potential Relation and Global Correspondence Based Joint Relational Triple Extraction*
Hengyi Zheng, rui wen, Xi Chen, Yifan Yang, Yunyan Zhang, Ziheng Zhang, Ningyu Zhang, Bin Qin, Xu Ming and Yefeng Zheng

9:00–11:00 *Learning from Miscellaneous Other-Class Words for Few-shot Named Entity Recognition*
Meihan Tong, Shuai Wang, Bin Xu, Yixin Cao, Minghui Liu, Lei Hou and Juanzi Li

Wednesday, August 4, 2021 (all times UTC+0) (continued)

9:00–11:00 *Joint Biomedical Entity and Relation Extraction with Knowledge-Enhanced Collective Inference*
Tuan Lai, Heng Ji, ChengXiang Zhai and Quan Hung Tran

9:00–11:00 *Entity Concept-enhanced Few-shot Relation Extraction*
Shan Yang, Yongfei Zhang, Guanglin Niu, Qinghua Zhao and Shiliang Pu

9:00–11:00 *Fine-grained Information Extraction from Biomedical Literature based on Knowledge-enriched Abstract Meaning Representation*
Zixuan Zhang, Nikolaus Parulian, Heng Ji, Ahmed Elsayed, Skatje Myers and Martha Palmer

9:00–11:00 *Unleash GPT-2 Power for Event Detection*
Amir Pouran Ben Veyseh, Viet Lai, Franck Dernoncourt and Thien Huu Nguyen

9:00–11:00 *Improving Model Generalization: A Chinese Named Entity Recognition Case Study*
Guanqing Liang and Cane Wing-Ki Leung

9:00–11:00 *CLEVE: Contrastive Pre-training for Event Extraction*
Ziqi Wang, Xiaozhi Wang, Xu Han, Yankai Lin, Lei Hou, Zhiyuan Liu, Peng Li, Juanzi Li and Jie Zhou

9:00–11:00 *Three Sentences Are All You Need: Local Path Enhanced Document Relation Extraction*
Quzhe Huang, Shengqi Zhu, Yansong Feng, Yuan Ye, Yuxuan Lai and Dongyan Zhao

9:00–11:00 *Document-level Event Extraction via Parallel Prediction Networks*
Hang Yang, Dianbo Sui, Yubo Chen, Kang Liu, Jun Zhao and Taifeng Wang

9:00–11:00 *StructuralLM: Structural Pre-training for Form Understanding*
Chenliang Li, Bin Bi, Ming Yan, Wei Wang, Songfang Huang, Fei Huang and Luo Si

Poster 3T: Sentiment Analysis, Stylistic Analysis, and Argument Mining

9:00–11:00 *Dual Graph Convolutional Networks for Aspect-based Sentiment Analysis*
Ruifan Li, Hao Chen, Fangxiang Feng, Zhanyu Ma, Xiaojie WANG and Eduard Hovy

9:00–11:00 *Multi-Label Few-Shot Learning for Aspect Category Detection*
Mengting Hu, Shiwan Zhao, Honglei Guo, Chao Xue, Hang Gao, Tiegang Gao, renhong cheng and Zhong Su

9:00–11:00 *Argument Pair Extraction via Attention-guided Multi-Layer Multi-Cross Encoding*
Liying Cheng, Tianyu Wu, Lidong Bing and Luo Si

9:00–11:00 *A Neural Transition-based Model for Argumentation Mining*
Jianzhu Bao, Chuang Fan, Jipeng Wu, Yixue Dang, Jiachen Du and Ruifeng Xu

11:00–12:00 ***Lifetime Award***

Session 14A: Language Generation 2

14:00–14:10 *Keep It Simple: Unsupervised Simplification of Multi-Paragraph Text*
Philippe Laban, Tobias Schnabel, Paul Bennett and Marti A. Hearst

14:10–14:20 *Long Text Generation by Modeling Sentence-Level and Discourse-Level Coherence*
Jian Guan, Xiaoxi Mao, changjie fan, Zitao Liu, Wenbiao Ding and Minlie Huang

14:20–14:30 *OpenMEVA: A Benchmark for Evaluating Open-ended Story Generation Metrics*
Jian Guan, Zhexin Zhang, Zhuoer Feng, Zitao Liu, Wenbiao Ding, Xiaoxi Mao, changjie fan and Minlie Huang

14:30–14:40 *DYPLOC: Dynamic Planning of Content Using Mixed Language Models for Text Generation*
Xinyu Hua, Ashwin Sreevatsa and Lu Wang

14:40–14:50 *Controllable Open-ended Question Generation with A New Question Type Ontology*
Shuyang Cao and Lu Wang

14:50–15:00 *BERTGen: Multi-task Generation through BERT*
Faidon Mitzalis, Ozan Caglayan, Pranava Madhyastha and Lucia Specia

Session 14B: Machine Translation and Multilinguality 9

14:00–14:10 *Selective Knowledge Distillation for Neural Machine Translation*
Fusheng Wang, Jianhao Yan, Fandong Meng and Jie Zhou

14:10–14:20 *Measuring and Increasing Context Usage in Context-Aware Machine Translation*
Patrick Fernandes, Kayo Yin, Graham Neubig and André F. T. Martins

14:20–14:30 *Beyond Offline Mapping: Learning Cross-lingual Word Embeddings through Context Anchoring*
Aitor Ormazabal, Mikel Artetxe, Aitor Soroa, Gorka Labaka and Eneko Agirre

14:30–14:40 *CCMatrix: Mining Billions of High-Quality Parallel Sentences on the Web*
Holger Schwenk, Guillaume Wenzek, Sergey Edunov, Edouard Grave, Armand Joulin and Angela Fan

14:40–14:50 *EDITOR: an Edit-Based Transformer with Repositioning for Neural Machine Translation with Soft Lexical Constraints*
Weijia Xu and Marine Carpuat

14:50–15:00 *Gender Bias in Machine Translation*
Beatrice Savoldi, Marco Gaido, Luisa Bentivogli, Matteo Negri and Marco Turchi

Session 14C: Machine Learning for NLP 7

14:00–14:10 *Length-Adaptive Transformer: Train Once with Length Drop, Use Anytime with Search*
Gyuwan Kim and Kyunghyun Cho

14:10–14:20 *GhostBERT: Generate More Features with Cheap Operations for BERT*
Zhiqi Huang, Lu Hou, Lifeng Shang, Xin Jiang, Xiao Chen and Qun Liu

14:20–14:30 *Super Tickets in Pre-Trained Language Models: From Model Compression to Improving Generalization*
Chen Liang, Simiao Zuo, Minshuo Chen, Haoming Jiang, Xiaodong Liu, Pengcheng He, Tuo Zhao and Weizhu Chen

14:30–14:40 *A Novel Estimator of Mutual Information for Learning to Disentangle Textual Representations*
Pierre Colombo, Pablo Piantanida and Chloé Clavel

14:40–14:50 *Determinantal Beam Search*
Clara Meister, Martina Forster and Ryan Cotterell

14:50–15:00 *Multi-hop Graph Convolutional Network with High-order Chebyshev Approximation for Text Reasoning*
Shuoran Jiang, Qingcai Chen, Xin Liu, Baotian Hu and Lisai Zhang

Session 14D: NLP Applications 4

14:00–14:10 *Accelerating Text Communication via Abbreviated Sentence Input*
Jiban Adhikary, Jamie Berger and Keith Vertanen

14:10–14:20 *Regression Bugs Are In Your Model! Measuring, Reducing and Analyzing Regressions In NLP Model Updates*
YUQING XIE, Yi-An Lai, Yuanjun Xiong, Yi Zhang and Stefano Soatto

14:20–14:30 *Detecting Propaganda Techniques in Memes*
Dimitar Dimitrov, Bishr Bin Ali, Shaden Shaar, Firoj Alam, Fabrizio Silvestri, Hamed Firooz, Preslav Nakov and Giovanni Da San Martino

14:30–14:37 *Unsupervised Cross-Domain Prerequisite Chain Learning using Variational Graph Autoencoders*
Irene Li, Vanessa Yan, Tianxiao Li, Rihao Qu and Dragomir Radev

14:37–14:44 *Attentive Multiview Text Representation for Differential Diagnosis*
Hadi Amiri, Mitra Mohtarami and Isaac Kohane

14:44–14:51 *MedNLI Is Not Immune: Natural Language Inference Artifacts in the Clinical Domain*
Christine Herlihy and Rachel Rudinger

Session 14E: Question Answering 4

14:00–14:10 *On the Efficacy of Adversarial Data Collection for Question Answering: Results from a Large-Scale Randomized Study*
Divyansh Kaushik, Douwe Kiela, Zachary C. Lipton and Wen-tau Yih

14:10–14:20 *Learning Dense Representations of Phrases at Scale*
Jinhyuk Lee, Mujeen Sung, Jaewoo Kang and Danqi Chen

14:20–14:30 *End-to-End Training of Neural Retrievers for Open-Domain Question Answering*
Devendra Sachan, Mostofa Patwary, Mohammad Shoeybi, Neel Kant, Wei Ping, William L. Hamilton and Bryan Catanzaro

14:30–14:40 *Question Answering Over Temporal Knowledge Graphs*
Apoorv Saxena, Soumen Chakrabarti and Partha Talukdar

14:40–14:47 *Towards a more Robust Evaluation for Conversational Question Answering*
Wissam Siblini, Baris Sayil and Yacine Kessaci

14:47–14:54 *VAULT: VAriable Unified Long Text Representation for Machine Reading Comprehension*
Haoyang Wen, Anthony Ferritto, Heng Ji, Radu Florian and Avi Sil

Session 15A: Language Generation 3

15:00–15:10 *Language Model Augmented Relevance Score*
Ruibo Liu, Jason Wei and Soroush Vosoughi

15:10–15:20 *DExperts: Decoding-Time Controlled Text Generation with Experts and Anti-Experts*
Alisa Liu, Maarten Sap, Ximing Lu, Swabha Swayamdipta, Chandra Bhagavatula, Noah A. Smith and Yejin Choi

15:20–15:30 *Polyjuice: Generating Counterfactuals for Explaining, Evaluating, and Improving Models*
Tongshuang Wu, Marco Tulio Ribeiro, Jeffrey Heer and Daniel Weld

15:30–15:40 *Metaphor Generation with Conceptual Mappings*
Kevin Stowe, Tuhin Chakrabarty, Nanyun Peng, Smaranda Muresan and Iryna Gurevych

15:40–15:50 *Computational Framework for Slang Generation*
Zhewei Sun, Richard Zemel and Yang Xu

15:50–15:57 *Avoiding Overlap in Data Augmentation for AMR-to-Text Generation*
Wenchao Du and Jeffrey Flanigan

Session 15B: NLP Applications 5

15:00–15:10 *Learning Latent Structures for Cross Action Phrase Relations in Wet Lab Protocols*
Chaitanya Kulkarni, Jany Chan, Eric Fosler-Lussier and Raghu Machiraju

15:10–15:20 *Multimodal Multi-Speaker Merger & Acquisition Financial Modeling: A New Task, Dataset, and Neural Baselines*
Ramit Sawhney, Mihir Goyal, Prakhar Goel, Puneet Mathur and Rajiv Ratn Shah

15:20–15:30 *Mid-Air Hand Gestures for Post-Editing of Machine Translation*
Rashad Albo Jamara, Nico Herbig, Antonio Krüger and Josef van Genabith

15:30–15:40 *Inter-GPS: Interpretable Geometry Problem Solving with Formal Language and Symbolic Reasoning*
Pan Lu, Ran Gong, Shibiao Jiang, Liang Qiu, Siyuan Huang, Xiaodan Liang and Song-Chun Zhu

15:40–15:50 *Joint Verification and Reranking for Open Fact Checking Over Tables*
Michael Sejr Schlichtkrull, Vladimir Karpukhin, Barlas Oguz, Mike Lewis, Wen-tau Yih and Sebastian Riedel

15:50–15:57 *Weakly-Supervised Methods for Suicide Risk Assessment: Role of Related Domains*
Chenghao Yang, Yudong Zhang and Smaranda Muresan

Session 15C: Resources and Evaluation 5

15:00–15:10 *Evaluation of Thematic Coherence in Microblogs*
Iman Munire Bilal, Bo Wang, Maria Liakata, Rob Procter and Adam Tsakalidis

15:10–15:20 *Neural semi-Markov CRF for Monolingual Word Alignment*
Wuwei Lan, Chao Jiang and Wei Xu

15:20–15:30 *Privacy at Scale: Introducing the PrivaSeer Corpus of Web Privacy Policies*
Mukund Srinath, Shomir Wilson and C Lee Giles

15:30–15:40 *The statistical advantage of automatic NLG metrics at the system level*
Johnny Wei and Robin Jia

15:40–15:50 *Are Missing Links Predictable? An Inferential Benchmark for Knowledge Graph Completion*
Yixin Cao, Xiang Ji, Xin Lv, Juanzi Li, Yonggang Wen and Hanwang Zhang

15:50–15:57 *Can Transformer Models Measure Coherence In Text: Re-Thinking the Shuffle Test*
Philippe Laban, Luke Dai, Lucas Bandarkar and Marti A. Hearst

Session 15D: Summarization 2

15:00–15:10 *ConvoSumm: Conversation Summarization Benchmark and Improved Abstractive Summarization with Argument Mining*
Alexander Fabbri, Faiaz Rahman, Imad Rizvi, Borui Wang, Haoran Li, Yashar Mehdad and Dragomir Radev

15:10–15:20 *Improving Factual Consistency of Abstractive Summarization via Question Answering*
Feng Nan, Cicero Nogueira dos Santos, Henghui Zhu, Patrick Ng, Kathleen McKeown, Ramesh Nallapati, Dejiao Zhang, Zhiguo Wang, Andrew O. Arnold and Bing Xiang

15:20–15:30 *EmailSum: Abstractive Email Thread Summarization*
Shiyue Zhang, Asli Celikyilmaz, Jianfeng Gao and Mohit Bansal

15:30–15:40 *Cross-Lingual Abstractive Summarization with Limited Parallel Resources*
Yu Bai, Yang Gao and Heyan Huang

15:40–15:50 *Dissecting Generation Modes for Abstractive Summarization Models via Ablation and Attribution*
Jiacheng Xu and Greg Durrett

15:50–15:57 *SimCLS: A Simple Framework for Contrastive Learning of Abstractive Summarization*
Yixin Liu and Pengfei Liu

Session 15E: Semantics: Lexical Semantics 2

15:00–15:10 *Learning Prototypical Functions for Physical Artifacts*
Tianyu Jiang and Ellen Riloff

15:10–15:20 *Verb Knowledge Injection for Multilingual Event Processing*
Olga Majewska, Ivan Vulić, Goran Glavaš, Edoardo Maria Ponti and Anna Korhonen

15:20–15:30 *Dynamic Contextualized Word Embeddings*
Valentin Hofmann, Janet Pierrehumbert and Hinrich Schütze

15:30–15:40 *Lexical Semantic Change Discovery*
Sinan Kurtyigit, Maike Park, Dominik Schlechtweg, Jonas Kuhn and Sabine Schulte im Walde

15:40–15:50 *Analysis and Evaluation of Language Models for Word Sense Disambiguation*
Daniel Loureiro, Kiamehr Rezaee, Mohammad Taher Pilehvar and Jose Camacho-Collados

15:50–16:00 *Let's Play mono-poly: BERT Can Reveal Words' Degree of Polysemy*
Aina Garí Soler and Marianna Apidianaki

Session 16A: Dialog and Interactive Systems 7

16:00–16:10 *Pretraining the Noisy Channel Model for Task-Oriented Dialogue*
Qi Liu, Lei Yu, Laura Rimell and Phil Blunsom

16:10–16:20 *The R-U-A-Robot Dataset: Helping Avoid Chatbot Deception by Detecting User Questions About Human or Non-Human Identity*
David Gros, Yu Li and Zhou Yu

16:20–16:30 *Conversation Graph: Data Augmentation, Training and Evaluation for Non-Deterministic Dialogue Management*
Milan Gritta, Gerasimos Lampourasm and Ignacio Iacobacci

16:30–16:40 *Using Meta-Knowledge Mined from Identifiers to Improve Intent Recognition in Conversational Systems*
Claudio Pinhanez, Paulo Cavalin, Victor Henrique Alves Ribeiro, Ana Appel, Heloisa Candello, Julio Nogima, Mauro Pichiliani, Melina Guerra, Maira de Bayser, Gabriel Malfatti and Henrique Ferreira

16:40–16:50 *Space Efficient Context Encoding for Non-Task-Oriented Dialogue Generation with Graph Attention Transformer*
Fabian Galetzka, Jewgeni Rose, David Schlangen and Jens Lehmann

16:50–17:00 *DialogueCRN: Contextual Reasoning Networks for Emotion Recognition in Conversations*
Dou Hu, Lingwei Wei and Xiaoyong Huai

Session 16B: Resources and Evaluation 6

16:00–16:10 *Cross-replication Reliability - An Empirical Approach to Interpreting Inter-rater Reliability*
Ka Wong, Praveen Paritosh and Lora Aroyo

16:10–16:20 *TIMEDIAL: Temporal Commonsense Reasoning in Dialog*
Lianhui Qin, Aditya Gupta, Shyam Upadhyay, Luheng He, Yejin Choi and Manaal Faruqui

16:20–16:30 *RAW-C: Relatedness of Ambiguous Words in Context (A New Lexical Resource for English)*
Sean Trott and Benjamin Bergen

16:30–16:40 *ARBERT & MARBERT: Deep Bidirectional Transformers for Arabic*
Muhammad Abdul-Mageed, AbdelRahim Elmadany and El Moatez Billah Nagoudi

16:40–16:47 *SaRoCo: Detecting Satire in a Novel Romanian Corpus of News Articles*
Ana-Cristina Rogoz, Gaman Mihaela and Radu Tudor Ionescu

16:47–16:54 *Bringing Structure into Summaries: a Faceted Summarization Dataset for Long Scientific Documents*
Rui Meng, khushboo Thaker, Lei Zhang, Yue Dong, Xingdi Yuan, Tong Wang and Daqing He

Session 16C: Semantics: Sentence-level Semantics, Textual Inference and Other areas 4

16:00–16:10 *Improving Paraphrase Detection with the Adversarial Paraphrasing Task*
Animesh Nighojkar and John Licato

16:10–16:20 *ADEPT: An Adjective-Dependent Plausibility Task*
Ali Emami, Ian Porada, Alexandra Olteanu, Kaheer Suleman, Adam Trischler and Jackie Chi Kit Cheung

16:20–16:30 *ReadOnce Transformers: Reusable Representations of Text for Transformers*
Shih-Ting Lin, Ashish Sabharwal and Tushar Khot

16:30–16:40 *Conditional Generation of Temporally-ordered Event Sequences*
Shih-Ting Lin, Nathanael Chambers and Greg Durrett

16:40–16:50 *Hate Speech Detection Based on Sentiment Knowledge Sharing*
Xianbing Zhou, yang yong, xiaochao fan, Ge Ren, Yunfeng Song, Yufeng Diao, Liang Yang and Hongfei LIN

Session 16D: Syntax: Tagging, Chunking, and Parsing 2

16:00–16:10 *Transition-based Bubble Parsing: Improvements on Coordination Structure Prediction*
Tianze Shi and Lillian Lee

16:10–16:20 *SpanNER: Named Entity Re-/Recognition as Span Prediction*
Jinlan Fu, Xuanjing Huang and Pengfei Liu

16:20–16:30 *Strong Equivalence of TAG and CCG*
Lena Katharina Schiffer and Andreas Maletti

16:30–16:40 *StructFormer: Joint Unsupervised Induction of Dependency and Constituency Structure from Masked Language Modeling*
Yikang Shen, Yi Tay, Che Zheng, Dara Bahri, Donald Metzler and Aaron Courville

16:40–16:47 *Replicating and Extending "Because Their Treebanks Leak": Graph Isomorphism, Covariants, and Parser Performance*
Mark Anderson, Anders Søgaard and Carlos Gómez-Rodríguez

Session 16E: Machine Translation and Multilinguality 10

16:00–16:10 *Language Embeddings for Typology and Cross-lingual Transfer Learning*
Dian Yu, Taiqi He and Kenji Sagae

16:10–16:20 *Can Sequence-to-Sequence Models Crack Substitution Ciphers?*
Nada Aldarrab and Jonathan May

16:20–16:30 *Beyond Noise: Mitigating the Impact of Fine-grained Semantic Divergences on Neural Machine Translation*
Eleftheria Briakou and Marine Carpuat

16:30–16:40 *Revisiting Negation in Neural Machine Translation*
Gongbo Tang, Philipp Rönchen, Rico Sennrich and Joakim Nivre

16:40–16:50 *Discriminative Reranking for Neural Machine Translation*
Ann Lee, Michael Auli and Marc'Aurelio Ranzato

16:50–16:57 *Don't Rule Out Monolingual Speakers: A Method For Crowdsourcing Machine Translation Data*
Rajat Bhatnagar, Ananya Ganesh and Katharina Kann

Best Paper Session

23:00–23:03 *EXPLAINABOARD: An Explainable Leaderboard for NLP*
Pengfei Liu, Jinlan Fu, Yang Xiao, Weizhe Yuan, Shuaichen Chang, Junqi Dai, Yixin Liu, Zihuiwen Ye and Graham Neubig

23:03–23:16 *Mind Your Outliers! Investigating the Negative Impact of Outliers on Active Learning for Visual Question Answering*
Siddharth Karamcheti, Ranjay Krishna, Li Fei-Fei and Christopher Manning

23:16–23:29 *All That's 'Human' Is Not Gold: Evaluating Human Evaluation of Generated Text*
Elizabeth Clark, Tal August, Sofia Serrano, Nikita Haduong, Suchin Gururangan and Noah A. Smith

23:29–23:42 *Scientific Credibility of Machine Translation Research: A Meta-Evaluation of 769 Papers*
Benjamin Marie, Atsushi Fujita and Raphael Rubino

23:42–23:55 *Neural Machine Translation with Monolingual Translation Memory*
Deng Cai, Yan Wang, Huayang Li, Wai Lam and Lemao Liu

23:55–00:08 *Intrinsic Dimensionality Explains the Effectiveness of Language Model Fine-Tuning*
Armen Aghajanyan, Sonal Gupta and Luke Zettlemoyer

00:08–00:21 *UnNatural Language Inference*
Koustuv Sinha, Prasanna Parthasarathi, Joelle Pineau and Adina Williams

00:21–00:39 *Including Signed Languages in Natural Language Processing*
Kayo Yin, Amit Moryossef, Julie Hochgesang, Yoav Goldberg and Malihe Alikhani

00:39–00:57 *Vocabulary Learning via Optimal Transport for Neural Machine Translation*
Jingjing Xu, Hao Zhou, Chun Gan, Zaixiang Zheng and Lei Li

Thursday, August 5, 2021 (all times UTC+0)

01:00–01:30 ***Distinguished Service and Test-Of-Time Awards session***

01:30–02:00 ***Closing and Future Conferences***