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 Tuchbelie, 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 Committee Chairs (Jing Huang, Antoine Bosselut, Christophe Gravier), Website and Conference App Chairs (Chutima Beokhaimook, Witchaworn Mankhong), Student Volunteer Coordinator (Dongyan Zhao), Ethnic 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
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

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Chengqing Zong, Institute of Automation, Chinese Academy of Sciences

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   Hao Fang, Microsoft Semantic Machines

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   Caterina Lacerra, Sapienza University of Rome
   Rocco Tripodi, University of Bologna
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Fei Xia, University of Washington
Wenjie Li, The Hong Kong Polytechnic University
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Senior Area Chairs and Area Chairs:

(Senior area chairs are in bold.)

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Interpretability and Analysis of Models for NLP:
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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

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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, Matthais Petri, Oleg Rokhlenko, Minjoon Seo, Avi Sil, Luca Soldaini, Anh Tuan Luu, Olga Uryupina, Thuy Vu, Fabio Massimo Zanzotto

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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

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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

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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:


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 Farriús, Manaal Faruqui, Delia Irazú Fernández-Farías, Jean-Philippe Faucournier, 
Adam Faulkner, Benoit Favre, Maryam Fazel-Zarandi, Afsaneh Fazy, 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, Anjali 
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José A. R. Fonollosa, Eric Fonseca, Marco Aurelio Fonseca, Maxwell Forbes, Tommaso 
Fornaciari, Karên Fort, Paula Fortuna, George Foster, Mary Ellen Foster, Anette Frank, 
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Frassinelli, Dayne Freitag, Markus Freitag, Lea Freramm, Daniel Fried, Annemarie Friedrich, 
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Fujino, Yoshinari Fujinuma, Atsushi Fujita, Fumiyo Fukumoto, Nancy Fulda, Adam Funk, 
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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 psychology, 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 ExELang² project.

¹https://www.dpss.unipd.it/summer-school-2021/home
²exelang.fr
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.
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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 Zhaoxin 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, Weiqiang 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
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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
Monday, August 2, 2021 (all times UTC+0) (continued)

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 Dataset for Generating Entity Descriptions
Weijia Shi, Mandar Joshi and Luke Zettlemoyer
### Session 2C: Interpretability and Analysis of Models for NLP 1

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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 Hendersson

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

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

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, Qihao Lu, Sumit Neelam, Lucian Popa, Prithviraj Sen, Yunyao Li and Alexander Gray

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

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

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

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

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

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

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

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

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

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

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, Alfonso Gliozzo and Alexander Gray

15:00–17:00  A Gradually Soft Multi-Task and Data-Augmented Approach to Medical Question Understanding
Khalil Mrini, Franck Demoncourt, 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 IV: 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
Monday, August 2, 2021 (all times UTC+0) (continued)

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

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

Yi Fung, Christopher Thomas, Revanth Gangi Reddy, Sandeep Polisetty, Heng Ji, Shih-Fu Chang, Kathleen McKeown, Mohit Bansal and Avi Sil

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

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

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

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

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

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  UXML: 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 Pre-trained Convolutional Neural Networks
Jong-Hoon Oh, Ryu Iida, Julien Kloetzer and Kentaro Torisawa

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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

COVID-Fact: Fact Extraction and Verification of Real-World Claims on COVID-19 Pandemic
Arkadiy Saakyan, Tuhin Chakraborty and Smaranda Muresan

Explaining Relationships Between Scientific Documents
Kelvin Luu, Xinyi Wu, Rik Koncel-Kedziorski, Kyle Lo, Isabel Cachola and Noah A. Smith

IrEne: Interpretable Energy Prediction for Transformers
Qingqing Cao, Yash Kumar Lal, Harsh Trivedi, Aruna Balasubramanian and Niranjan Balasubramanian

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

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

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

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

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

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
Neural Bi-Lexicalized PCFG Induction
Songlin Yang, Yanpeng Zhao and Kewei Tu

Session 7E: Resources and Evaluation 2

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

Towards Quantifiable Dialogue Coherence Evaluation
Zheng Ye, Liucun Lu, Lishan Huang, Liang Lin and Xiaodan Liang

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

Factoring Statutory Reasoning as Language Understanding Challenges
Nils Holzenberger and Benjamin Van Durme

Evaluating Evaluation Measures for Ordinal Classification and Ordinal Quantification
Tetsuya Sakai

AligNarr: Aligning Narratives on Movies
Paramita Mirza, Mostafa Abouhamra and Gerhard Weikum
Tuesday, August 3, 2021 (all times UTC+0) (continued)

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

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

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

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

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

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

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, EungGyuen 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

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, Qianchong Xu, Ying Shen, Ruifeng Xu and Min Yang
Tuesday, August 3, 2021 (all times UTC+0) (continued)

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  
Hyunj 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)

Jiahuan Li, Yutong Shen, Shujian Huang, Xinyu Dai and Jiajun CHEN

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

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 Koupae, Greg Durrett, Nathanael Chambers and Niranjan Balasubramanian
Tuesday, August 3, 2021 (all times UTC+0) (continued)

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
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

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

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

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

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

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

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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

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

Dependency-driven Relation Extraction with Attentive Graph Convolutional Networks
Yuanhe Tian, Guimin Chen, Yan Song and Xiang Wan

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

Targeting the Benchmark: On Methodology in Current Natural Language Processing Research
David Schlangen

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

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

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

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 Ruishong Huang

0:00–2:00  
*AdaTag: Multi-Attribute Value Extraction from Product Profiles with Adaptive Decoding*  
Jun Yan, Nasser Zalmout, Yan Liang, Christian 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
Wednesday, August 4, 2021 (all times UTC+0) (continued)

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

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

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

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

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, Xubo 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

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

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

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

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

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

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

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

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

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, Jungsso Park and Jaewoo Kang
Wednesday, August 4, 2021 (all times UTC+0) (continued)

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

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

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

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  
**GhosiBERT: 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 Shaa, Firoj Alam, Fabrizio Silvestri, Hamed Firouz, 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
Wednesday, August 4, 2021 (all times UTC+0) (continued)

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  *DEExperts: 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

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

15:40–15:50 Joint Verification and Reranking for Open Fact Checking Over Tables
Michael Sejr Schlichtkrull, Vladimir Karpukhin, Barlas Oguz, Mike Lewis, Wentaui 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
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

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

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

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

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

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
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<td>Discriminative Reranking for Neural Machine Translation</td>
<td>Ann Lee, Michael Auli and Marc’Aurelio Ranzato</td>
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<td>EXPLAINABOARD: An Explainable Leaderboard for NLP</td>
<td>Pengfei Liu, Jinlan Fu, Yang Xiao, Weizhe Yuan, Shuaichen Chang, Junqi Dai, Yixin Liu, Zhihiwen Ye and Graham Neubig</td>
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<td>Mind Your Outliers! Investigating the Negative Impact of Outliers on Active Learning for Visual Question Answering</td>
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<td>Intrinsic Dimensionality Explains the Effectiveness of Language Model Fine-Tuning</td>
<td>Armen Aghajanyan, Sonal Gupta and Luke Zettlemoyer</td>
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<td>Including Signed Languages in Natural Language Processing</td>
<td>Kayo Yin, Amit Moryossef, Julie Hochgesang, Yoav Goldberg and Malihe Alikhani</td>
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<td>Vocabulary Learning via Optimal Transport for Neural Machine Translation</td>
<td>Jingjing Xu, Hao Zhou, Chun Gan, Zaixiang Zheng and Lei Li</td>
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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