

ACL-IJCNLP 2021

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

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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 Yifru Tachbelie, Alexis Palmer, Ignatius Eziani, Manuel Mager, Nafise Moosavi; Socio-cultural Inclusion Chairs: Alvin Grissom, Xanda Schofield, Pedro Rodriguez), Local Sponsorship Chairs (Rachada Kongkrachantra, Jing Li, Kobkrit Viriyayudhakorn, Zhongyu Wei), Publications Chairs (Yuki Arase, Jing-Shin Chang, Yvette Graham), Publicity Chair (Kai-Fam Wong), Remote Presentation Chairs (Zhongjun He, Nattapol Kritsuthikul, Yadollah Yaghoobzadeh), Sustainability Chairs (Angeliki Lazaridou, Qi Zhang), Reviewer Mentoring Committee Chairs (Jing Huang, Antoine Bosselut, Christophe Gravier), Website and Conference App Chairs (Chutima Beokhaimook, Witchaworn Mankhong), Student Volunteer Coordinator (Dongyan Zhao), Ethic Advisory Committee Chairs (Malvina Nissim, Min-Yen Kan, Xanda Schofield), Social Media Committee Chairs (Luciana Benotti, Lidong Bing, Zhumin Chen, Rachele Sprugnoli, Mark Seligman), Virtual Infrastructure Committee Advisor (Hao Fang), Virtual Infrastructure Committee Chairs (Wei Lu, Krich Nasingkun, Alessandro Raganato, Shaonan Wang, Liang-Chih Yu, Jianfei Yu).

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

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

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

Welcome and hope you all enjoy the conference!

Chengqing Zong

ACL-IJCNLP'2021 General Chair

June 28, 2021

Message from the Program Chairs

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

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

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

1. Based on the number of submissions in previous conferences, we followed NAACL 2021 and combined two tracks (“Semantics: Sentence Level” and “Semantics: Textual Inference and Other Areas of Semantics”) into a single track “Semantics: Sentence-level Semantics, Textual Inference and Other areas”.
2. To accommodate a wider and more diverse area, we changed the name of the “Computational Social Science and Social Media” track to “Computational Social Science and Cultural Analytics”.
3. Following NAACL 2021, we combined the “Theory and Formalism” with the “Cognitive Modeling and Psycholinguistics” areas into “Linguistic theories, Cognitive Modeling and Psycholinguistics”. This track is designed to encourage submissions targeted to theoretical underpinning of NLP models which had little/small presence in the past ACL conferences.
4. We introduced a new theme: “NLP for Social Good (NLP4SG)”. The application of AI to provide positive social impact has been an important topic in recent years. However, to date, this has not been a topic highlighted at the ACL main conference. This track is designed to invite submissions that can provide insights for the ACL-IJCNLP community on the topic of NLP for Social Good as well as how NLP could potentially cause or be used for social harm.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Fei Xia, University of Washington

Wenjie Li, The Hong Kong Polytechnic University

Roberto Navigli, Sapienza University of Rome

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

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

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

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

Matan Orbach, Jessica Ouyang,

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

Xiaojun Quan,

Shuhuai Ren, Philip Resnik, Gil Rocha,

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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.

¹<https://www.dpss.unipd.it/summer-school-2021/home>

²exelang.fr

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

Christopher Potts
Stanford University

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

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

Table of Contents

<i>Investigating label suggestions for opinion mining in German Covid-19 social media</i> Tilman Beck, Ji-Ung Lee, Christina Viehmann, Marcus Maurer, Oliver Quiring and Iryna Gurevych	1
<i>How Did This Get Funded?! Automatically Identifying Quirky Scientific Achievements</i> Chen Shani, Nadav Borenstein and Dafna Shahaf	14
<i>Engage the Public: Poll Question Generation for Social Media Posts</i> Zexin Lu, Keyang Ding, Yuji Zhang, Jing Li, Baolin Peng and Lemao Liu	29
<i>HateCheck: Functional Tests for Hate Speech Detection Models</i> Paul Röttger, Bertie Vidgen, Dong Nguyen, Zeerak Waseem, Helen Margetts and Janet Pierrehumbert	41
<i>Unified Dual-view Cognitive Model for Interpretable Claim Verification</i> Lianwei Wu, Yuan Rao, Yuqian Lan, Ling Sun and Zhaoyin Qi	59
<i>DeepRapper: Neural Rap Generation with Rhyme and Rhythm Modeling</i> Lanqing Xue, Kaitao Song, Duocai Wu, Xu Tan, Nevin L. Zhang, Tao Qin, Wei-Qiang Zhang and Tie-Yan Liu	69
<i>PENS: A Dataset and Generic Framework for Personalized News Headline Generation</i> Xiang Ao, Xiting Wang, Ling Luo, Ying Qiao, Qing He and Xing Xie	82
<i>Enhancing Content Preservation in Text Style Transfer Using Reverse Attention and Conditional Layer Normalization</i> Dongkyu Lee, Zhiliang Tian, Lanqing Xue and Nevin L. Zhang	93
<i>Mention Flags (MF): Constraining Transformer-based Text Generators</i> Yufei Wang, Ian Wood, Stephen Wan, Mark Dras and Mark Johnson	103
<i>Generalising Multilingual Concept-to-Text NLG with Language Agnostic Delexicalisation</i> Giulio Zhou and Gerasimos Lampouras	114
<i>Conversations Are Not Flat: Modeling the Dynamic Information Flow across Dialogue Utterances</i> Zekang Li, Jinchao Zhang, Zhengcong Fei, Yang Feng and Jie Zhou	128
<i>Dual Slot Selector via Local Reliability Verification for Dialogue State Tracking</i> Jinyu Guo, Kai Shuang, Jijie Li and Zihan Wang	139
<i>Transferable Dialogue Systems and User Simulators</i> Bo-Hsiang Tseng, Yinpei Dai, Florian Kreyssig and Bill Byrne	152
<i>BoB: BERT Over BERT for Training Persona-based Dialogue Models from Limited Personalized Data</i> Haoyu Song, Yan Wang, Kaiyan Zhang, Wei-Nan Zhang and Ting Liu	167
<i>GL-GIN: Fast and Accurate Non-Autoregressive Model for Joint Multiple Intent Detection and Slot Filling</i> Libo Qin, Fuxuan Wei, Tianbao Xie, Xiao Xu, Wanxiang Che and Ting Liu	178
<i>Accelerating BERT Inference for Sequence Labeling via Early-Exit</i> Xiaonan Li, Yunfan Shao, Tianxiang Sun, Hang Yan, Xipeng Qiu and Xuanjing Huang	189

<i>Modularized Interaction Network for Named Entity Recognition</i> Fei Li, Zheng Wang, Siu Cheung Hui, Lejian Liao, Dandan Song, Jing Xu, Guoxiu He and meihuizi jia	200
<i>Capturing Event Argument Interaction via A Bi-Directional Entity-Level Recurrent Decoder</i> Xi Xiangyu, Wei Ye, Shikun Zhang, Quanxiu Wang, Huixing Jiang and Wei Wu	210
<i>UniRE: A Unified Label Space for Entity Relation Extraction</i> Yijun Wang, Changzhi Sun, Yuanbin Wu, Hao Zhou, Lei Li and Junchi Yan	220
<i>Refining Sample Embeddings with Relation Prototypes to Enhance Continual Relation Extraction</i> Li Cui, Deqing Yang, Jiaxin Yu, Chengwei Hu, Jiayang Cheng, Jingjie Yi and Yanghua Xiao ..	232
<i>Contrastive Learning for Many-to-many Multilingual Neural Machine Translation</i> Xiao Pan, Mingxuan Wang, Liwei Wu and Lei Li	244
<i>Understanding the Properties of Minimum Bayes Risk Decoding in Neural Machine Translation</i> Mathias Müller and Rico Sennrich	259
<i>Multi-Head Highly Parallelized LSTM Decoder for Neural Machine Translation</i> Hongfei Xu, Qiuhui Liu, Josef van Genabith, Deyi Xiong and Meng Zhang	273
<i>A Bidirectional Transformer Based Alignment Model for Unsupervised Word Alignment</i> Jingyi Zhang and Josef van Genabith	283
<i>Learning Language Specific Sub-network for Multilingual Machine Translation</i> Zehui Lin, Liwei Wu, Mingxuan Wang and Lei Li	293
<i>Exploring the Efficacy of Automatically Generated Counterfactuals for Sentiment Analysis</i> Linyi Yang, Jiazheng Li, Pdraig Cunningham, Yue Zhang, Barry Smyth and Ruihai Dong	306
<i>Bridge-Based Active Domain Adaptation for Aspect Term Extraction</i> Zhuang Chen and Tiejun Qian	317
<i>Multimodal Sentiment Detection Based on Multi-channel Graph Neural Networks</i> Xiaocui Yang, Shi Feng, Yifei Zhang and Daling Wang	328
<i>Aspect-Category-Opinion-Sentiment Quadruple Extraction with Implicit Aspects and Opinions</i> Hongjie Cai, Rui Xia and Jianfei Yu	340
<i>PASS: Perturb-and-Select Summarizer for Product Reviews</i> Nadav Oved and Ran Levy	351
<i>Deep Differential Amplifier for Extractive Summarization</i> Ruipeng Jia, Yanan Cao, Fang Fang, Yuchen Zhou, Zheng Fang, Yanbing Liu and Shi Wang ..	366
<i>Multi-TimeLine Summarization (MTLS): Improving Timeline Summarization by Generating Multiple Summaries</i> Yi Yu, Adam Jatowt, Antoine Doucet, Kazunari Sugiyama and Masatoshi Yoshikawa	377
<i>Self-Supervised Multimodal Opinion Summarization</i> Jinbae Im, Moonki Kim, Hyeop Lee, Hyunsouk Cho and Sehee Chung	388
<i>A Training-free and Reference-free Summarization Evaluation Metric via Centrality-weighted Relevance and Self-referenced Redundancy</i> Wang Chen, Piji Li and Irwin King	404

<i>DESCGEN: A Distantly Supervised Dataset for Generating Entity Descriptions</i> Weijia Shi, Mandar Joshi and Luke Zettlemoyer	415
<i>Introducing Orthogonal Constraint in Structural Probes</i> Tomasz Limisiewicz and David Mareček	428
<i>Hidden Killer: Invisible Textual Backdoor Attacks with Syntactic Trigger</i> Fanchao Qi, Mukai Li, Yangyi Chen, Zhengyan Zhang, Zhiyuan Liu, Yasheng Wang and Maosong Sun	443
<i>Examining the Inductive Bias of Neural Language Models with Artificial Languages</i> Jennifer C. White and Ryan Cotterell	454
<i>Explaining Contextualization in Language Models using Visual Analytics</i> Rita Sevastjanova, Aikaterini-Lida Kalouli, Christin Beck, Hanna Schäfer and Mennatallah El-Assady	464
<i>Improving the Faithfulness of Attention-based Explanations with Task-specific Information for Text Classification</i> George Chrysostomou and Nikolaos Aletras	477
<i>Generating Landmark Navigation Instructions from Maps as a Graph-to-Text Problem</i> Raphael Schumann and Stefan Riezler	489
<i>E2E-VLP: End-to-End Vision-Language Pre-training Enhanced by Visual Learning</i> Haiyang Xu, Ming Yan, Chenliang Li, Bin Bi, Songfang Huang, Wenming Xiao and Fei Huang	503
<i>Learning Relation Alignment for Calibrated Cross-modal Retrieval</i> Shuhuai Ren, Junyang Lin, Guangxiang Zhao, Rui Men, An Yang, Jingren Zhou, Xu Sun and Hongxia Yang	514
<i>KM-BART: Knowledge Enhanced Multimodal BART for Visual Commonsense Generation</i> Yiran Xing, Zai Shi, Zhao Meng, Gerhard Lakemeyer, Yunpu Ma and Roger Wattenhofer	525
<i>Cascaded Head-colliding Attention</i> Lin Zheng, Zhiyong Wu and Lingpeng Kong	536
<i>Structural Knowledge Distillation: Tractably Distilling Information for Structured Predictor</i> Xinyu Wang, Yong Jiang, Zhaohui Yan, Zixia Jia, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang and Kewei Tu	550
<i>Parameter-efficient Multi-task Fine-tuning for Transformers via Shared Hypernetworks</i> Rabeeh Karimi Mahabadi, Sebastian Ruder, Mostafa Dehghani and James Henderson	565
<i>COSY: COunterfactual SYntax for Cross-Lingual Understanding</i> SICHENG YU, Hao Zhang, Yulei Niu, Qianru Sun and Jing Jiang	577
<i>OoMMix: Out-of-manifold Regularization in Contextual Embedding Space for Text Classification</i> Seonghyeon Lee, Dongha Lee and Hwanjo Yu	590
<i>Understanding and Countering Stereotypes: A Computational Approach to the Stereotype Content Model</i> Kathleen C. Fraser, Isar Nejadgholi and Svetlana Kiritchenko	600
<i>Structurizing Misinformation Stories via Rationalizing Fact-Checks</i> Shan Jiang and Christo Wilson	617

<i>Modeling Language Usage and Listener Engagement in Podcasts</i> Sravana Reddy, Mariya Lazarova, Yongze Yu and Rosie Jones	632
<i>Breaking Down the Invisible Wall of Informal Fallacies in Online Discussions</i> Saumya Sahai, Oana Balalau and Roxana Horincar	644
<i>SocAoG: Incremental Graph Parsing for Social Relation Inference in Dialogues</i> Liang Qiu, Yuan Liang, Yizhou Zhao, Pan Lu, Baolin Peng, Zhou Yu, Ying Nian Wu and Song-Chun Zhu	658
<i>TicketTalk: Toward human-level performance with end-to-end, transaction-based dialog systems</i> Bill Byrne, Karthik Krishnamoorthi, Saravanan Ganesh and Mihir Kale	671
<i>Improving Dialog Systems for Negotiation with Personality Modeling</i> Runzhe Yang, Jingxiao Chen and Karthik Narasimhan	681
<i>Learning from Perturbations: Diverse and Informative Dialogue Generation with Inverse Adversarial Training</i> Wangchunshu Zhou, Qifei LI and Chenle Li	694
<i>Increasing Faithfulness in Knowledge-Grounded Dialogue with Controllable Features</i> Hannah Rashkin, David Reitter, Gaurav Singh Tomar and Dipanjan Das	704
<i>CitationIE: Leveraging the Citation Graph for Scientific Information Extraction</i> Vijay Viswanathan, Graham Neubig and Pengfei Liu	719
<i>From Discourse to Narrative: Knowledge Projection for Event Relation Extraction</i> Jialong Tang, Hongyu Lin, Meng Liao, Yaojie Lu, Xianpei Han, Le Sun, Weijian Xie and Jin Xu	732
<i>AdvPicker: Effectively Leveraging Unlabeled Data via Adversarial Discriminator for Cross-Lingual NER</i> Weile Chen, Huiqiang Jiang, Qianhui Wu, Börje Karlsson and Yi Guan	743
<i>Compare to The Knowledge: Graph Neural Fake News Detection with External Knowledge</i> Linmei Hu, Tianchi Yang, Luhao Zhang, Wanjun Zhong, Duyu Tang, Chuan Shi, Nan Duan and Ming Zhou	754
<i>Discontinuous Named Entity Recognition as Maximal Clique Discovery</i> Yucheng Wang, Bowen Yu, Hongsong Zhu, Tingwen Liu, Nan Yu and Limin Sun	764
<i>LNN-EL: A Neuro-Symbolic Approach to Short-text Entity Linking</i> Hang Jiang, Sairam Gurajada, Qiuhaio Lu, Sumit Neelam, Lucian Popa, Prithviraj Sen, Yunyao Li and Alexander Gray	775
<i>Do Context-Aware Translation Models Pay the Right Attention?</i> Kayo Yin, Patrick Fernandes, Danish Pruthi, Aditi Chaudhary, André F. T. Martins and Graham Neubig	788
<i>Adapting High-resource NMT Models to Translate Low-resource Related Languages without Parallel Data</i> Wei-Jen Ko, Ahmed El-Kishky, Adithya Renduchintala, Vishrav Chaudhary, Naman Goyal, Francisco Guzmán, Pascale Fung, Philipp Koehn and Mona Diab	802

<i>Bilingual Lexicon Induction via Unsupervised Bixtext Construction and Word Alignment</i>	
Haoyue Shi, Luke Zettlemoyer and Sida I. Wang	813
<i>Multilingual Speech Translation from Efficient Finetuning of Pretrained Models</i>	
Xian Li, Chaghan Wang, Yun Tang, Chau Tran, Yuqing Tang, Juan Pino, Alexei Baevski, Alexis Conneau and Michael Auli	827
<i>Learning Faithful Representations of Causal Graphs</i>	
Ananth Balashankar and Lakshminarayanan Subramanian	839
<i>What Context Features Can Transformer Language Models Use?</i>	
Joe O’Connor and Jacob Andreas	851
<i>Integrated Directional Gradients: Feature Interaction Attribution for Neural NLP Models</i>	
Sandipan Sikdar, Parantapa Bhattacharya and Kieran Heese	865
<i>DeCLUTR: Deep Contrastive Learning for Unsupervised Textual Representations</i>	
John Giorgi, Oswald Nitski, Bo Wang and Gary Bader	879
<i>XLPT-AMR: Cross-Lingual Pre-Training via Multi-Task Learning for Zero-Shot AMR Parsing and Text Generation</i>	
Dongqin Xu, Junhui Li, Muhua Zhu, Min Zhang and Guodong Zhou	896
<i>Span-based Semantic Parsing for Compositional Generalization</i>	
Jonathan Herzig and Jonathan Berant	908
<i>Compositional Generalization and Natural Language Variation: Can a Semantic Parsing Approach Handle Both?</i>	
Peter Shaw, Ming-Wei Chang, Panupong Pasupat and Kristina Toutanova	922
<i>A Targeted Assessment of Incremental Processing in Neural Language Models and Humans</i>	
Ethan Wilcox, Pranali Vani and Roger Levy	939
<i>The Possible, the Plausible, and the Desirable: Event-Based Modality Detection for Language Processing</i>	
Valentina Pyatkin, Shoval Sadde, Aynat Rubinstein, Paul Portner and Reut Tsarfaty	953
<i>To POS Tag or Not to POS Tag: The Impact of POS Tags on Morphological Learning in Low-Resource Settings</i>	
Sarah Moeller, Ling Liu and Mans Hulden	966
<i>Prosodic segmentation for parsing spoken dialogue</i>	
Elizabeth Nielsen, Mark Steedman and Sharon Goldwater	979
<i>VoxPopuli: A Large-Scale Multilingual Speech Corpus for Representation Learning, Semi-Supervised Learning and Interpretation</i>	
Chaghan Wang, Morgane Riviere, Ann Lee, Anne Wu, Chaitanya Talnikar, Daniel Haziza, Mary Williamson, Juan Pino and Emmanuel Dupoux	993
<i>Stereotyping Norwegian Salmon: An Inventory of Pitfalls in Fairness Benchmark Datasets</i>	
Su Lin Blodgett, Gilsinia Lopez, Alexandra Olteanu, Robert Sim and Hanna Wallach	1004
<i>Robust Knowledge Graph Completion with Stacked Convolutions and a Student Re-Ranking Network</i>	
Justin Lovelace, Denis Newman-Griffis, Shikhar Vashishth, Jill Fain Lehman and Carolyn Rosé	1016

<i>A DQN-based Approach to Finding Precise Evidences for Fact Verification</i>	
Hai Wan, Haicheng Chen, Jianfeng Du, Weilin Luo and Rongzhen Ye	1030
<i>The Art of Abstention: Selective Prediction and Error Regularization for Natural Language Processing</i>	
Ji Xin, Raphael Tang, Yaoliang Yu and Jimmy Lin	1040
<i>Unsupervised Out-of-Domain Detection via Pre-trained Transformers</i>	
Keyang Xu, Tongzheng Ren, Shikun Zhang, Yihao Feng and Caiming Xiong	1052
<i>MATE-KD: Masked Adversarial Text, a Companion to Knowledge Distillation</i>	
Ahmad Rashid, Vasileios Lioutas and Mehdi Rezagholizadeh	1062
<i>Selecting Informative Contexts Improves Language Model Fine-tuning</i>	
Richard Antonello, Nicole Beckage, Javier Turek and Alexander Huth	1072
<i>Explainable Prediction of Text Complexity: The Missing Preliminaries for Text Simplification</i>	
Cristina Garbacea, Mengtian Guo, Samuel Carton and Qiaozhu Mei	1086
<i>Multi-Task Retrieval for Knowledge-Intensive Tasks</i>	
Jean Maillard, Vladimir Karpukhin, Fabio Petroni, Wen-tau Yih, Barlas Oguz, Veselin Stoyanov and Gargi Ghosh	1098
<i>When Do You Need Billions of Words of Pretraining Data?</i>	
Yian Zhang, Alex Warstadt, Xiaocheng Li and Samuel R. Bowman	1112
<i>Analyzing the Source and Target Contributions to Predictions in Neural Machine Translation</i>	
Elena Voita, Rico Sennrich and Ivan Titov	1126
<i>Comparing Test Sets with Item Response Theory</i>	
Clara Vania, Phu Mon Htut, William Huang, Dhara Mungra, Richard Yuanzhe Pang, Jason Phang, Haokun Liu, Kyunghyun Cho and Samuel R. Bowman	1141
<i>Uncovering Constraint-Based Behavior in Neural Models via Targeted Fine-Tuning</i>	
Forrest Davis and Marten van Schijndel	1159
<i>More Identifiable yet Equally Performant Transformers for Text Classification</i>	
Rishabh Bhardwaj, Navonil Majumder, Soujanya Poria and Eduard Hovy	1172
<i>AugNLG: Few-shot Natural Language Generation using Self-trained Data Augmentation</i>	
Xinnuo Xu, Guoyin Wang, Young-Bum Kim and Sungjin Lee	1183
<i>Can vectors read minds better than experts? Comparing data augmentation strategies for the automated scoring of children’s mindreading ability</i>	
Venelin Kovatchev, Phillip Smith, Mark Lee and Rory Devine	1196
<i>A Dataset and Baselines for Multilingual Reply Suggestion</i>	
Mozhi Zhang, Wei Wang, Budhaditya Deb, Guoqing Zheng, Milad Shokouhi and Ahmed Hassan Awadallah	1207
<i>What Ingredients Make for an Effective Crowdsourcing Protocol for Difficult NLU Data Collection Tasks?</i>	
Nikita Nangia, Saku Sugawara, Harsh Trivedi, Alex Warstadt, Clara Vania and Samuel R. Bowman	1221

<i>Align Voting Behavior with Public Statements for Legislator Representation Learning</i> Xinyi Mou, Zhongyu Wei, Lei Chen, Shangyi Ning, Yancheng He, Changjian Jiang and Xuanjing Huang	1236
<i>Measure and Evaluation of Semantic Divergence across Two Languages</i> Syrielle Montariol and Alexandre Allauzen	1247
<i>Improving Zero-Shot Translation by Disentangling Positional Information</i> Danni Liu, Jan Niehues, James Cross, Francisco Guzmán and Xian Li	1259
<i>Common Sense Beyond English: Evaluating and Improving Multilingual Language Models for Commonsense Reasoning</i> Bill Yuchen Lin, Seyeon Lee, Xiaoyang Qiao and Xiang Ren	1274
<i>Attention Calibration for Transformer in Neural Machine Translation</i> Yu Lu, Jiali Zeng, Jiajun Zhang, Shuangzhi Wu and Mu Li	1288
<i>Diverse Pretrained Context Encodings Improve Document Translation</i> Domenic Donato, Lei Yu and Chris Dyer	1299
<i>Exploiting Language Relatedness for Low Web-Resource Language Model Adaptation: An Indic Languages Study</i> Yash Khemchandani, Sarvesh Mehtani, Vaidehi Patil, Abhijeet Awasthi, Partha Talukdar and Sunita Sarawagi	1312
<i>On Finding the K-best Non-projective Dependency Trees</i> Ran Zmigrod, Tim Vieira and Ryan Cotterell	1324
<i>Towards Argument Mining for Social Good: A Survey</i> Eva Maria Vecchi, Neele Falk, Iman Jundi and Gabriella Lapesa	1338
<i>Automated Generation of Storytelling Vocabulary from Photographs for use in AAC</i> Mauricio Fontana de Vargas and Karyn Moffatt	1353
<i>CLIP: A Dataset for Extracting Action Items for Physicians from Hospital Discharge Notes</i> James Mullenbach, Yada Pruksachatkun, Sean Adler, Jennifer Seale, Jordan Swartz, Greg McKeelvey, Hui Dai, Yi Yang and David Sontag	1365
<i>Assessing Emoji Use in Modern Text Processing Tools</i> Abu Awal Md Shoeb and Gerard de Melo	1379
<i>Select, Extract and Generate: Neural Keyphrase Generation with Layer-wise Coverage Attention</i> Wasi Ahmad, Xiao Bai, Soomin Lee and Kai-Wei Chang	1389
<i>Factorising Meaning and Form for Intent-Preserving Paraphrasing</i> Tom Hosking and Mirella Lapata	1405
<i>AggGen: Ordering and Aggregating while Generating</i> Xinnuo Xu, Ondřej Dušek, Verena Rieser and Ioannis Konostas	1419
<i>Reflective Decoding: Beyond Unidirectional Generation with Off-the-Shelf Language Models</i> Peter West, Ximing Lu, Ari Holtzman, Chandra Bhagavatula, Jena D. Hwang and Yejin Choi	1435
<i>Towards Table-to-Text Generation with Numerical Reasoning</i> Lya Hulliyyatus Suadaa, Hidetaka Kamigaito, Kotaro Funakoshi, Manabu Okumura and Hiroya Takamura	1451

<i>BACO: A Background Knowledge- and Content-Based Framework for Citing Sentence Generation</i> Yubin Ge, Ly Dinh, Xiaofeng Liu, Jinsong Su, Ziyao Lu, Ante Wang and Jana Diesner	1466
<i>Language Model as an Annotator: Exploring DialoGPT for Dialogue Summarization</i> Xiachong Feng, Xiaocheng Feng, Libo Qin, Bing Qin and Ting Liu	1479
<i>Challenges in Information-Seeking QA: Unanswerable Questions and Paragraph Retrieval</i> Akari Asai and Eunsol Choi	1492
<i>A Gradually Soft Multi-Task and Data-Augmented Approach to Medical Question Understanding</i> Khalil Mrini, Franck Deroncourt, Seunghyun Yoon, Trung Bui, Walter Chang, Emilia Farcas and Ndapa Nakashole	1505
<i>Leveraging Type Descriptions for Zero-shot Named Entity Recognition and Classification</i> Rami Aly, Andreas Vlachos and Ryan McDonald	1516
<i>MECT: Multi-Metadata Embedding based Cross-Transformer for Chinese Named Entity Recognition</i> Shuang Wu, Xiaoning Song and Zhenhua Feng	1529
<i>Factuality Assessment as Modal Dependency Parsing</i> Jiarui Yao, Haoling Qiu, Jin Zhao, Bonan Min and Nianwen Xue	1540
<i>Directed Acyclic Graph Network for Conversational Emotion Recognition</i> Weizhou Shen, Siyue Wu, Yunyi Yang and Xiaojun Quan	1551
<i>Improving Formality Style Transfer with Context-Aware Rule Injection</i> Zonghai Yao and hong yu	1561
<i>Topic-Driven and Knowledge-Aware Transformer for Dialogue Emotion Detection</i> Lixing Zhu, Gabriele Pergola, Lin Gui, Deyu Zhou and Yulan He	1571
<i>Syntopical Graphs for Computational Argumentation Tasks</i> Joe Barrow, Rajiv Jain, Nedim Lipka, Franck Deroncourt, Vlad Morariu, Varun Manjunatha, Douglas Oard, Philip Resnik and Henning Wachsmuth	1583
<i>Stance Detection in COVID-19 Tweets</i> Kyle Glandt, Sarthak Khanal, Yingjie Li, Doina Caragea and Cornelia Caragea	1596
<i>Topic-Aware Evidence Reasoning and Stance-Aware Aggregation for Fact Verification</i> Jiasheng Si, Deyu Zhou, Tongzhe Li, Xingyu Shi and Yulan He	1612
<i>Changes in European Solidarity Before and During COVID-19: Evidence from a Large Crowd- and Expert-Annotated Twitter Dataset</i> Alexandra Ils, Dan Liu, Daniela Grunow and Steffen Eger	1623
<i>Measuring Conversational Uptake: A Case Study on Student-Teacher Interactions</i> Dorottya Demszky, Jing Liu, Zid Mancenido, Julie Cohen, Heather Hill, Dan Jurafsky and Tatsunori Hashimoto	1638
<i>A Survey of Code-switching: Linguistic and Social Perspectives for Language Technologies</i> A. Seza Dođruöz, Sunayana Sitaram, Barbara E. Bullock and Almedia Jacqueline Toribio	1654
<i>Learning from the Worst: Dynamically Generated Datasets to Improve Online Hate Detection</i> Bertie Vidgen, Tristan Thrush, Zeerak Waseem and Douwe Kiela	1667

<i>InfoSurgeon: Cross-Media Fine-grained Information Consistency Checking for Fake News Detection</i> Yi Fung, Christopher Thomas, Revanth Gangi Reddy, Sandeep Polisetty, Heng Ji, Shih-Fu Chang, Kathleen McKeown, Mohit Bansal and Avi Sil	1683
<i>I like fish, especially dolphins: Addressing Contradictions in Dialogue Modeling</i> Yixin Nie, Mary Williamson, Mohit Bansal, Douwe Kiela and Jason Weston	1699
<i>A Sequence-to-Sequence Approach to Dialogue State Tracking</i> Yue Feng, Yang Wang and Hang Li	1714
<i>Discovering Dialog Structure Graph for Coherent Dialog Generation</i> Jun Xu, Zeyang Lei, Haifeng Wang, Zheng-Yu Niu, Hua Wu and Wanxiang Che	1726
<i>Dialogue Response Selection with Hierarchical Curriculum Learning</i> Yixuan Su, Deng Cai, Qingyu Zhou, Zibo Lin, Simon Baker, Yunbo Cao, Shuming Shi, Nigel Collier and Yan Wang	1740
<i>A Joint Model for Dropped Pronoun Recovery and Conversational Discourse Parsing in Chinese Con- versational Speech</i> Jingxuan Yang, Kerui Xu, Jun Xu, Si Li, Sheng Gao, Jun Guo, Nianwen Xue and Ji-Rong Wen	1752
<i>A Systematic Investigation of KB-Text Embedding Alignment at Scale</i> Vardaan Pahuja, Yu Gu, Wenhua Chen, Mehdi Bahrami, Lei Liu, Wei-Peng Chen and Yu Su ..	1764
<i>Named Entity Recognition with Small Strongly Labeled and Large Weakly Labeled Data</i> Haoming Jiang, Danqing Zhang, Tianyu Cao, Bing Yin and Tuo Zhao	1775
<i>Ultra-Fine Entity Typing with Weak Supervision from a Masked Language Model</i> Hongliang Dai, Yangqiu Song and Haixun Wang	1790
<i>Improving Named Entity Recognition by External Context Retrieving and Cooperative Learning</i> Xinyu Wang, Yong Jiang, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang and Kewei Tu	1800
<i>Implicit Representations of Meaning in Neural Language Models</i> Belinda Z. Li, Maxwell Nye and Jacob Andreas	1813
<i>Causal Analysis of Syntactic Agreement Mechanisms in Neural Language Models</i> Matthew Finlayson, Aaron Mueller, Sebastian Gehrmann, Stuart Shieber, Tal Linzen and Yonatan Belinkov	1828
<i>Bird's Eye: Probing for Linguistic Graph Structures with a Simple Information-Theoretic Approach</i> Yifan Hou and Mrinmaya Sachan	1844
<i>Knowledgeable or Educated Guess? Revisiting Language Models as Knowledge Bases</i> Boxi Cao, Hongyu Lin, Xianpei Han, Le Sun, Lingyong Yan, Meng Liao, Tong Xue and Jin Xu	1860
<i>Poisoning Knowledge Graph Embeddings via Relation Inference Patterns</i> Peru Bhardwaj, John Kelleher, Luca Costabello and Declan O'Sullivan	1875
<i>Bad Seeds: Evaluating Lexical Methods for Bias Measurement</i> Maria Antoniak and David Mimno	1889
<i>A Survey of Race, Racism, and Anti-Racism in NLP</i> Anjalie Field, Su Lin Blodgett, Zeerak Waseem and Yulia Tsvetkov	1905

<i>Intrinsic Bias Metrics Do Not Correlate with Application Bias</i>	
Seraphina Goldfarb-Tarrant, Rebecca Marchant, Ricardo Muñoz Sánchez, Mugdha Pandya and Adam Lopez	1926
<i>RedditBias: A Real-World Resource for Bias Evaluation and Debiasing of Conversational Language Models</i>	
Soumya Barikeri, Anne Lauscher, Ivan Vulić and Goran Glavaš	1941
<i>Contributions of Transformer Attention Heads in Multi- and Cross-lingual Tasks</i>	
Weicheng Ma, Kai Zhang, Renze Lou, Lili Wang and Soroush Vosoughi	1956
<i>Crafting Adversarial Examples for Neural Machine Translation</i>	
Xinze Zhang, Junzhe Zhang, Zhenhua Chen and Kun He	1967
<i>UXLA: A Robust Unsupervised Data Augmentation Framework for Zero-Resource Cross-Lingual NLP</i>	
M Saiful Bari, Tasnim Mohiuddin and Shafiq Joty	1978
<i>Glancing Transformer for Non-Autoregressive Neural Machine Translation</i>	
Lihua Qian, Hao Zhou, Yu Bao, Mingxuan Wang, Lin Qiu, Weinan Zhang, Yong Yu and Lei Li	1993
<i>Hierarchical Context-aware Network for Dense Video Event Captioning</i>	
Lei Ji, Xianglin Guo, Haoyang Huang and Xilin Chen	2004
<i>Control Image Captioning Spatially and Temporally</i>	
Kun Yan, Lei Ji, Huaishao Luo, Ming Zhou, Nan Duan and Shuai Ma	2014
<i>Edited Media Understanding Frames: Reasoning About the Intent and Implications of Visual Misinformation</i>	
Jeff Da, Maxwell Forbes, Rowan Zellers, Anthony Zheng, Jena D. Hwang, Antoine Bosselut and Yejin Choi	2026
<i>PIGLeT: Language Grounding Through Neuro-Symbolic Interaction in a 3D World</i>	
Rowan Zellers, Ari Holtzman, Matthew Peters, Roozbeh Mottaghi, Aniruddha Kembhavi, Ali Farhadi and Yejin Choi	2040
<i>Modeling Fine-Grained Entity Types with Box Embeddings</i>	
Yasumasa Onoe, Michael Boratko, Andrew McCallum and Greg Durrett	2051
<i>ChineseBERT: Chinese Pretraining Enhanced by Glyph and Pinyin Information</i>	
zijun sun, Xiaoya Li, Xiaofei Sun, Yuxian Meng, Xiang Ao, Qing He, Fei Wu and Jiwei Li . .	2065
<i>Weight Distillation: Transferring the Knowledge in Neural Network Parameters</i>	
Ye Lin, Yanyang Li, Ziyang Wang, Bei Li, Quan Du, Tong Xiao and Jingbo Zhu	2076
<i>Optimizing Deeper Transformers on Small Datasets</i>	
Peng Xu, Dhruv Kumar, Wei Yang, Wenjie Zi, Keyi Tang, Chenyang Huang, Jackie Chi Kit Cheung, Simon J.D. Prince and Yanshuai Cao	2089
<i>BERTAC: Enhancing Transformer-based Language Models with Adversarially Pretrained Convolutional Neural Networks</i>	
Jong-Hoon Oh, Ryu Iida, Julien Kloetzer and Kentaro Torisawa	2103
<i>COVID-Fact: Fact Extraction and Verification of Real-World Claims on COVID-19 Pandemic</i>	
Arkadiy Saakyan, Tuhin Chakrabarty and Smaranda Muresan	2116

<i>Explaining Relationships Between Scientific Documents</i>	
Kelvin Luu, Xinyi Wu, Rik Koncel-Kedziorski, Kyle Lo, Isabel Cachola and Noah A. Smith .	2130
<i>IrEne: Interpretable Energy Prediction for Transformers</i>	
Qingqing Cao, Yash Kumar Lal, Harsh Trivedi, Aruna Balasubramanian and Niranjan Balasubramanian	2145
<i>Mitigating Bias in Session-based Cyberbullying Detection: A Non-Compromising Approach</i>	
Lu Cheng, Ahmadreza Mosallanezhad, Yasin Silva, Deborah Hall and Huan Liu	2158
<i>PlotCoder: Hierarchical Decoding for Synthesizing Visualization Code in Programmatic Context</i>	
Xinyun Chen, Linyuan Gong, Alvin Cheung and Dawn Song	2169
<i>Changing the World by Changing the Data</i>	
Anna Rogers	2182
<i>EarlyBERT: Efficient BERT Training via Early-bird Lottery Tickets</i>	
Xiaohan Chen, Yu Cheng, Shuohang Wang, Zhe Gan, Zhangyang Wang and Jingjing Liu	2195
<i>On the Effectiveness of Adapter-based Tuning for Pretrained Language Model Adaptation</i>	
Ruidan He, Linlin Liu, Hai Ye, Qingyu Tan, BOSHEG DING, Liying Cheng, Jiawei Low, Lidong Bing and Luo Si	2208
<i>Data Augmentation for Text Generation Without Any Augmented Data</i>	
Wei Bi, Huayang Li and Jiacheng Huang	2223
<i>Integrating Semantics and Neighborhood Information with Graph-Driven Generative Models for Document Retrieval</i>	
Zijing Ou, Qinliang Su, Jianxing Yu, Bang Liu, Jingwen Wang, Ruihui Zhao, Changyou Chen and Yefeng Zheng	2238
<i>SMURF: SeMantic and linguistic UndeRstanding Fusion for Caption Evaluation via Typicality Analysis</i>	
Joshua Feinglass and Yezhou Yang	2250
<i>KaggleDBQA: Realistic Evaluation of Text-to-SQL Parsers</i>	
Chia-Hsuan Lee, Oleksandr Polozov and Matthew Richardson	2261
<i>QASR: QCRI Aljazeera Speech Resource A Large Scale Annotated Arabic Speech Corpus</i>	
Hamdy Mubarak, Amir Hussein, Shammur Absar Chowdhury and Ahmed Ali	2274
<i>An Empirical Study on Hyperparameter Optimization for Fine-Tuning Pre-trained Language Models</i>	
Xueqing Liu and Chi Wang	2286
<i>Better than Average: Paired Evaluation of NLP systems</i>	
Maxime Peyrard, Wei Zhao, Steffen Eger and Robert West	2301
<i>Chase: A Large-Scale and Pragmatic Chinese Dataset for Cross-Database Context-Dependent Text-to-SQL</i>	
Jiaqi Guo, Ziliang Si, Yu Wang, Qian Liu, Ming Fan, Jian-Guang LOU, Zijiang Yang and Ting Liu	2316
<i>CLINE: Contrastive Learning with Semantic Negative Examples for Natural Language Understanding</i>	
Dong Wang, Ning Ding, Piji Li and Haitao Zheng	2332
<i>Tree-Structured Topic Modeling with Nonparametric Neural Variational Inference</i>	
Ziye Chen, Cheng Ding, Zusheng Zhang, Yanghui Rao and Haoran Xie	2343

<i>ExCAR: Event Graph Knowledge Enhanced Explainable Causal Reasoning</i> Li Du, Xiao Ding, Kai Xiong, Ting Liu and Bing Qin	2354
<i>Distributed Representations of Emotion Categories in Emotion Space</i> Xiangyu Wang and Chengqing Zong	2364
<i>Style is NOT a single variable: Case Studies for Cross-Stylistic Language Understanding</i> Dongyeop Kang and Eduard Hovy	2376
<i>DynaSent: A Dynamic Benchmark for Sentiment Analysis</i> Christopher Potts, Zhengxuan Wu, Atticus Geiger and Douwe Kiela	2388
<i>A Hierarchical VAE for Calibrating Attributes while Generating Text using Normalizing Flow</i> Bidisha Samanta, Mohit Agrawal and Niloy Ganguly	2405
<i>A Unified Generative Framework for Aspect-based Sentiment Analysis</i> Hang Yan, Junqi Dai, Tuo Ji, Xipeng Qiu and Zheng Zhang	2416
<i>Discovering Dialogue Slots with Weak Supervision</i> Vojtěch Hudeček, Ondřej Dušek and Zhou Yu	2430
<i>Enhancing the generalization for Intent Classification and Out-of-Domain Detection in SLU</i> Yilin Shen, Yen-Chang Hsu, Avik Ray and Hongxia Jin	2443
<i>ProtAugment: Intent Detection Meta-Learning through Unsupervised Diverse Paraphrasing</i> Thomas Dopierre, Christophe Gravier and Wilfried Logerais	2454
<i>Robustness Testing of Language Understanding in Task-Oriented Dialog</i> Jiexi Liu, Ryuichi Takanobu, Jiaxin Wen, Dazhen Wan, hongguang li, weiran nie, Cheng LI, Wei Peng and Minlie Huang	2467
<i>Comprehensive Study: How the Context Information of Different Granularity Affects Dialogue State Tracking?</i> Puhai Yang, Heyan Huang and Xian-Ling Mao	2481
<i>OTTers: One-turn Topic Transitions for Open-Domain Dialogue</i> Karin Sevegnani, David M. Howcroft, Ioannis Konstas and Verena Rieser	2492
<i>Towards Robustness of Text-to-SQL Models against Synonym Substitution</i> Yujian Gan, Xinyun Chen, Qiuping Huang, Matthew Purver, John R. Woodward, Jinxia Xie and Pengsheng Huang	2505
<i>KACE: Generating Knowledge Aware Contrastive Explanations for Natural Language Inference</i> Qianglong Chen, Feng Ji, Xiangji Zeng, Feng-Lin Li, Ji Zhang, Haiqing Chen and Yin Zhang	2516
<i>Self-Guided Contrastive Learning for BERT Sentence Representations</i> Taeuk Kim, Kang Min Yoo and Sang-goo Lee	2528
<i>LGESQL: Line Graph Enhanced Text-to-SQL Model with Mixed Local and Non-Local Relations</i> Ruisheng Cao, Lu Chen, Zhi Chen, Yanbin Zhao, Su Zhu and Kai Yu	2541
<i>Multi-stage Pre-training over Simplified Multimodal Pre-training Models</i> Tongtong Liu, Fangxiang Feng and Xiaojie WANG	2556
<i>Beyond Sentence-Level End-to-End Speech Translation: Context Helps</i> Biao Zhang, Ivan Titov, Barry Haddow and Rico Sennrich	2566

<i>LayoutLMv2: Multi-modal Pre-training for Visually-rich Document Understanding</i>	
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	2579
<i>UNIMO: Towards Unified-Modal Understanding and Generation via Cross-Modal Contrastive Learning</i>	
Wei Li, Can Gao, Guocheng Niu, Xinyan Xiao, Hao Liu, Jiachen Liu, Hua Wu and Haifeng Wang	2592
<i>Missing Modality Imagination Network for Emotion Recognition with Uncertain Missing Modalities</i>	
Jinming Zhao, Ruichen Li and Qin Jin	2608
<i>Stacked Acoustic-and-Textual Encoding: Integrating the Pre-trained Models into Speech Translation Encoders</i>	
Chen Xu, Bojie Hu, Yanyang Li, Yuhao Zhang, shen huang, Qi Ju, Tong Xiao and Jingbo Zhu	2619
<i>N-ary Constituent Tree Parsing with Recursive Semi-Markov Model</i>	
Xin Xin, Jinlong Li and Zeqi Tan	2631
<i>Automated Concatenation of Embeddings for Structured Prediction</i>	
Xinyu Wang, Yong Jiang, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang and Kewei Tu	2643
<i>Multi-View Cross-Lingual Structured Prediction with Minimum Supervision</i>	
Zechuan Hu, Yong Jiang, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang and Kewei Tu	2661
<i>The Limitations of Limited Context for Constituency Parsing</i>	
Yuchen Li and Andrej Risteski	2675
<i>Neural Bi-Lexicalized PCFG Induction</i>	
Songlin Yang, Yanpeng Zhao and Kewei Tu	2688
<i>Ruddit: Norms of Offensiveness for English Reddit Comments</i>	
Rishav Hada, Sohi Sudhir, Pushkar Mishra, Helen Yannakoudakis, Saif M. Mohammad and Ekaterina Shutova	2700
<i>Towards Quantifiable Dialogue Coherence Evaluation</i>	
Zheng Ye, Liucun Lu, Lishan Huang, Liang Lin and Xiaodan Liang	2718
<i>Assessing the Representations of Idiomaticity in Vector Models with a Noun Compound Dataset Labeled at Type and Token Levels</i>	
Marcos Garcia, Tiago Kramer Vieira, Carolina Scarton, Marco Idiart and Aline Villavicencio	2730
<i>Factoring Statutory Reasoning as Language Understanding Challenges</i>	
Nils Holzenberger and Benjamin Van Durme	2742
<i>Evaluating Evaluation Measures for Ordinal Classification and Ordinal Quantification</i>	
Tetsuya Sakai	2759
<i>Interpretable and Low-Resource Entity Matching via Decoupling Feature Learning from Decision Making</i>	
Zijun Yao, Chengjiang Li, Tiansi Dong, Xin Lv, Jifan Yu, Lei Hou, Juanzi Li, YICHI ZHANG and zelin Dai	2770

<i>Locate and Label: A Two-stage Identifier for Nested Named Entity Recognition</i>	
Yongliang Shen, Xinyin Ma, Zeqi Tan, Shuai Zhang, Wen Wang and Weiming Lu	2782
<i>Text2Event: Controllable Sequence-to-Structure Generation for End-to-end Event Extraction</i>	
Yaojie Lu, Hongyu Lin, Jin Xu, Xianpei Han, Jialong Tang, Annan Li, Le Sun, Meng Liao and Shaoyi Chen	2795
<i>A Large-Scale Chinese Multimodal NER Dataset with Speech Clues</i>	
Dianbo Sui, Zhengkun Tian, Yubo Chen, Kang Liu and Jun Zhao	2807
<i>A Neural Transition-based Joint Model for Disease Named Entity Recognition and Normalization</i>	
Zongcheng Ji, Tian Xia, Mei Han and Jing Xiao	2819
<i>OntoED: Low-resource Event Detection with Ontology Embedding</i>	
Shumin Deng, Ningyu Zhang, Luoqiu Li, Chen Hui, tou huaixiao, Mosha Chen, Fei Huang and Huajun Chen	2828
<i>Self-Training Sampling with Monolingual Data Uncertainty for Neural Machine Translation</i>	
Wenxiang Jiao, Xing Wang, Zhaopeng Tu, Shuming Shi, Michael Lyu and Irwin King	2840
<i>Breaking the Corpus Bottleneck for Context-Aware Neural Machine Translation with Cross-Task Pre-training</i>	
Linqing Chen, Junhui Li, Zhengxian Gong, Boxing Chen, Weihua Luo, Min Zhang and Guodong Zhou	2851
<i>Guiding Teacher Forcing with Seer Forcing for Neural Machine Translation</i>	
Yang Feng, Shuhao Gu, Dengji Guo, Zhengxin Yang and Chenze Shao	2862
<i>Cascade versus Direct Speech Translation: Do the Differences Still Make a Difference?</i>	
Luisa Bentivogli, Mauro Cettolo, Marco Gaido, Alina Karakanta, Alberto Martinelli, Matteo Negri and Marco Turchi	2873
<i>Unsupervised Neural Machine Translation for Low-Resource Domains via Meta-Learning</i>	
Cheonbok Park, Yunwon Tae, TaeHee Kim, Soyoun Yang, Mohammad Azam Khan, Lucy Park and Jaegul Choo	2888
<i>Lightweight Cross-Lingual Sentence Representation Learning</i>	
Zhuoyuan Mao, Prakhar Gupta, Chenhui Chu, Martin Jaggi and Sadao Kurohashi	2902
<i>ERNIE-Doc: A Retrospective Long-Document Modeling Transformer</i>	
SiYu Ding, Junyuan Shang, Shuohuan Wang, Yu Sun, Hao Tian, Hua Wu and Haifeng Wang .	2914
<i>Marginal Utility Diminishes: Exploring the Minimum Knowledge for BERT Knowledge Distillation</i>	
Yuanxin LIU, Fandong Meng, Zheng Lin, Weiping Wang and Jie Zhou	2928
<i>Rational LAMOL: A Rationale-based Lifelong Learning Framework</i>	
Kasidis Kanwatchara, Thanapapas Horsuwan, Piyawat Lertvittayakumjorn, Boonserm Kijsirikul and Peerapon Vateekul	2942
<i>EnSLM: Ensemble Language Model for Data Diversity by Semantic Clustering</i>	
Zhibin Duan, Hao Zhang, Chaojie Wang, Zhengjue Wang, Bo Chen and Mingyuan Zhou	2954
<i>LeeBERT: Learned Early Exit for BERT with cross-level optimization</i>	
Wei Zhu	2968

<i>Unsupervised Extractive Summarization-Based Representations for Accurate and Explainable Collaborative Filtering</i>	
Reinald Adrian Pugoy and Hung-Yu Kao	2981
<i>PLOME: Pre-training with Misspelled Knowledge for Chinese Spelling Correction</i>	
Shulin Liu, Tao Yang, Tianchi Yue, Feng Zhang and Di Wang	2991
<i>Competence-based Multimodal Curriculum Learning for Medical Report Generation</i>	
Fenglin Liu, Shen Ge and Xian Wu	3001
<i>Learning Syntactic Dense Embedding with Correlation Graph for Automatic Readability Assessment</i>	
Xinying Qiu, Yuan Chen, Hanwu Chen, Jian-Yun Nie, Yuming Shen and Dawei Lu	3013
<i>Meta-KD: A Meta Knowledge Distillation Framework for Language Model Compression across Domains</i>	
Haojie Pan, Chengyu Wang, Minghui Qiu, Yichang Zhang, Yaliang Li and Jun Huang	3026
<i>A Semantic-based Method for Unsupervised Commonsense Question Answering</i>	
Yilin Niu, Fei Huang, Jiaming Liang, Wenkai Chen, Xiaoyan Zhu and Minlie Huang	3037
<i>Explanations for CommonsenseQA: New Dataset and Models</i>	
Shourya Aggarwal, Divyanshu Mandowara, Vishwajeet Agrawal, Dinesh Khandelwal, Parag Singla and Dinesh Garg	3050
<i>Few-Shot Question Answering by Pretraining Span Selection</i>	
Ori Ram, Yuval Kirstain, Jonathan Berant, Amir Globerson and Omer Levy	3066
<i>UnitedQA: A Hybrid Approach for Open Domain Question Answering</i>	
Hao Cheng, Yelong Shen, Xiaodong Liu, Pengcheng He, Weizhu Chen and Jianfeng Gao	3080
<i>Database reasoning over text</i>	
James Thorne, Majid Yazdani, Marzieh Saeidi, Fabrizio Silvestri, Sebastian Riedel and Alon Halevy	3091
<i>Online Learning Meets Machine Translation Evaluation: Finding the Best Systems with the Least Human Effort</i>	
Vânia Mendonça, Ricardo Rei, Luisa Coheur, Alberto Sardinha and Ana Lúcia Santos	3105
<i>How Good is Your Tokenizer? On the Monolingual Performance of Multilingual Language Models</i>	
Phillip Rust, Jonas Pfeiffer, Ivan Vulić, Sebastian Ruder and Iryna Gurevych	3118
<i>Evaluating morphological typology in zero-shot cross-lingual transfer</i>	
Antonio Martínez-García, Toni Badia and Jeremy Barnes	3136
<i>From Machine Translation to Code-Switching: Generating High-Quality Code-Switched Text</i>	
Ishan Tarunesh, Syamantak Kumar and Preethi Jyothi	3154
<i>Fast and Accurate Neural Machine Translation with Translation Memory</i>	
Qiuxiang He, Guoping Huang, Qu Cui, Li Li and Lemao Liu	3170
<i>Annotating Online Misogyny</i>	
Philine Zeinert, Nanna Inie and Leon Derczynski	3181
<i>Few-NERD: A Few-shot Named Entity Recognition Dataset</i>	
Ning Ding, Guangwei Xu, Yulin Chen, Xiaobin Wang, Xu Han, Pengjun Xie, Haitao Zheng and Zhiyuan Liu	3198

<i>MultiMET: A Multimodal Dataset for Metaphor Understanding</i>	
Dongyu Zhang, Minghao Zhang, Heting Zhang, Liang Yang and Hongfei LIN	3214
<i>Human-in-the-Loop for Data Collection: a Multi-Target Counter Narrative Dataset to Fight Online Hate Speech</i>	
Margherita Fanton, Helena Bonaldi, Serra Sinem Tekiroğlu and Marco Guerini	3226
<i>Can Generative Pre-trained Language Models Serve As Knowledge Bases for Closed-book QA?</i>	
Cunxiang Wang, Pai Liu and Yue Zhang	3241
<i>Joint Models for Answer Verification in Question Answering Systems</i>	
Zeyu Zhang, Thuy Vu and Alessandro Moschitti	3252
<i>Answering Ambiguous Questions through Generative Evidence Fusion and Round-Trip Prediction</i>	
Yifan Gao, Henghui Zhu, Patrick Ng, Cicero Nogueira dos Santos, Zhiguo Wang, Feng Nan, Dejiao Zhang, Ramesh Nallapati, Andrew O. Arnold and Bing Xiang	3263
<i>TAT-QA: A Question Answering Benchmark on a Hybrid of Tabular and Textual Content in Finance</i>	
Fengbin Zhu, Wenqiang Lei, Youcheng Huang, Chao Wang, Shuo Zhang, Jiancheng Lv, Fuli Feng and Tat-Seng Chua	3277
<i>Modeling Transitions of Focal Entities for Conversational Knowledge Base Question Answering</i>	
Yunshi Lan and Jing Jiang	3288
<i>Evidence-based Factual Error Correction</i>	
James Thorne and Andreas Vlachos	3298
<i>Probabilistic, Structure-Aware Algorithms for Improved Variety, Accuracy, and Coverage of AMR Alignments</i>	
Austin Blodgett and Nathan Schneider	3310
<i>Meta-Learning to Compositionally Generalize</i>	
Henry Conklin, Bailin Wang, Kenny Smith and Ivan Titov	3322
<i>Taming Pre-trained Language Models with N-gram Representations for Low-Resource Domain Adaptation</i>	
Shizhe Diao, Ruijia Xu, Hongjin Su, Yilei Jiang, Yan Song and Tong Zhang	3336
<i>ERICA: Improving Entity and Relation Understanding for Pre-trained Language Models via Contrastive Learning</i>	
Yujia Qin, Yankai Lin, Ryuichi Takanobu, Zhiyuan Liu, Peng Li, Heng Ji, Minlie Huang, Maosong Sun and Jie Zhou	3350
<i>Position Bias Mitigation: A Knowledge-Aware Graph Model for Emotion Cause Extraction</i>	
Hanqi Yan, Lin Gui, Gabriele Pergola and Yulan He	3364
<i>Every Bite Is an Experience: Key Point Analysis of Business Reviews</i>	
Roy Bar-Haim, Lilach Eden, Yoav Kantor, Roni Friedman and Noam Slonim	3376
<i>Structured Sentiment Analysis as Dependency Graph Parsing</i>	
Jeremy Barnes, Robin Kurtz, Stephan Oepen, Lilja Øvrelid and Erik Velldal	3387
<i>Consistency Regularization for Cross-Lingual Fine-Tuning</i>	
Bo Zheng, Li Dong, Shaohan Huang, Wenhui Wang, Zewen Chi, Saksham Singhal, Wanxiang Che, Ting Liu, Xia Song and Furu Wei	3403

<i>Improving Pretrained Cross-Lingual Language Models via Self-Labeled Word Alignment</i>	
Zewen Chi, Li Dong, Bo Zheng, Shaohan Huang, Xian-Ling Mao, Heyan Huang and Furu Wei	3418
<i>Rejuvenating Low-Frequency Words: Making the Most of Parallel Data in Non-Autoregressive Translation</i>	
Liang Ding, Longyue Wang, Xuebo Liu, Derek F. Wong, Dacheng Tao and Zhaopeng Tu	3431
<i>G-Transformer for Document-Level Machine Translation</i>	
Guangsheng Bao, Yue Zhang, Zhiyang Teng, Boxing Chen and Weihua Luo	3442
<i>Prevent the Language Model from being Overconfident in Neural Machine Translation</i>	
Mengqi Miao, Fandong Meng, Yijin Liu, Xiao-Hua Zhou and Jie Zhou	3456
<i>Towards Emotional Support Dialog Systems</i>	
Siyang Liu, Chujie Zheng, Orianna Demasi, Sahand Sabour, Yu Li, Zhou Yu, Yong Jiang and Minlie Huang	3469
<i>Novel Slot Detection: A Benchmark for Discovering Unknown Slot Types in the Task-Oriented Dialogue System</i>	
Yanan Wu, Zhiyuan Zeng, Keqing He, Hong Xu, Yuanmeng Yan, Huixing Jiang and Weiran Xu	3484
<i>GTM: A Generative Triple-wise Model for Conversational Question Generation</i>	
Lei Shen, Fandong Meng, Jinchao Zhang, Yang Feng and Jie Zhou	3495
<i>Diversifying Dialog Generation via Adaptive Label Smoothing</i>	
Yida Wang, Yinhe Zheng, Yong Jiang and Minlie Huang	3507
<i>Out-of-Scope Intent Detection with Self-Supervision and Discriminative Training</i>	
Li-Ming Zhan, Haowen Liang, Bo LIU, Lu Fan, Xiao-Ming Wu and Albert Y.S. Lam	3521
<i>Document-level Event Extraction via Heterogeneous Graph-based Interaction Model with a Tracker</i>	
Runxin Xu, Tianyu Liu, Lei Li and Baobao Chang	3533
<i>Nested Named Entity Recognition via Explicitly Excluding the Influence of the Best Path</i>	
Yiran Wang, Hiroyuki Shindo, Yuji Matsumoto and Taro Watanabe	3547
<i>LearnDA: Learnable Knowledge-Guided Data Augmentation for Event Causality Identification</i>	
Xinyu Zuo, Pengfei Cao, Yubo Chen, Kang Liu, Jun Zhao, Weihua Peng and Yuguang Chen .	3558
<i>Revisiting the Negative Data of Distantly Supervised Relation Extraction</i>	
Chenhao Xie, Jiaqing Liang, Jingping Liu, Chengsong Huang, Wenhao Huang and Yanghua Xiao	3572
<i>Knowing the No-match: Entity Alignment with Dangling Cases</i>	
Zequn Sun, Muhao Chen and Wei Hu	3582
<i>Superbizarre Is Not Superb: Derivational Morphology Improves BERT's Interpretation of Complex Words</i>	
Valentin Hofmann, Janet Pierrehumbert and Hinrich Schütze	3594
<i>BERT is to NLP what AlexNet is to CV: Can Pre-Trained Language Models Identify Analogies?</i>	
Asahi Ushio, Luis Espinosa Anke, Steven Schockaert and Jose Camacho-Collados	3609
<i>Exploring the Representation of Word Meanings in Context: A Case Study on Homonymy and Synonymy</i>	
Marcos Garcia	3625

<i>Measuring Fine-Grained Domain Relevance of Terms: A Hierarchical Core-Fringe Approach</i> Jie Huang, Kevin Chang, JinJun Xiong and Wen-mei Hwu	3641
<i>HERALD: An Annotation Efficient Method to Detect User Disengagement in Social Conversations</i> Weixin Liang, Kai-Hui Liang and Zhou Yu	3652
<i>Value-Agnostic Conversational Semantic Parsing</i> Emmanouil Antonios Platanios, Adam Pauls, Subhro Roy, Yuchen Zhang, Alexander Kyte, Alan Guo, Sam Thomson, Jayant Krishnamurthy, Jason Wolfe, Jacob Andreas and Dan Klein	3666
<i>MPC-BERT: A Pre-Trained Language Model for Multi-Party Conversation Understanding</i> Jia-Chen Gu, Chongyang Tao, Zhenhua Ling, Can Xu, Xiubo Geng and Daxin Jiang	3682
<i>Best of Both Worlds: Making High Accuracy Non-incremental Transformer-based Disfluency Detection Incremental</i> Morteza Rohanian and Julian Hough	3693
<i>NeuralWOZ: Learning to Collect Task-Oriented Dialogue via Model-Based Simulation</i> Sungdong Kim, Minsuk Chang and Sang-Woo Lee	3704
<i>CDRNN: Discovering Complex Dynamics in Human Language Processing</i> Cory Shain	3718
<i>Structural Guidance for Transformer Language Models</i> Peng Qian, Tahira Naseem, Roger Levy and Ramón Fernandez Astudillo	3735
<i>Surprisal Estimators for Human Reading Times Need Character Models</i> Byung-Doh Oh, Christian Clark and William Schuler	3746
<i>CogAlign: Learning to Align Textual Neural Representations to Cognitive Language Processing Signals</i> Yuqi Ren and Deyi Xiong	3758
<i>Self-Attention Networks Can Process Bounded Hierarchical Languages</i> Shunyu Yao, Binghui Peng, Christos Papadimitriou and Karthik Narasimhan	3770
<i>TextSETTR: Few-Shot Text Style Extraction and Tunable Targeted Restyling</i> Parker Riley, Noah Constant, Mandy Guo, Girish Kumar, David Uthus and Zarana Parekh ...	3786
<i>H-Transformer-1D: Fast One-Dimensional Hierarchical Attention for Sequences</i> Zhenhai Zhu and Radu Soricut	3801
<i>Making Pre-trained Language Models Better Few-shot Learners</i> Tianyu Gao, Adam Fisch and Danqi Chen	3816
<i>A Sweet Rabbit Hole by DARCY: Using Honey Pots to Detect Universal Trigger's Adversarial Attacks</i> Thai Le, Noseong Park and Dongwon Lee	3831
<i>Towards Propagation Uncertainty: Edge-enhanced Bayesian Graph Convolutional Networks for Rumor Detection</i> Lingwei Wei, Dou Hu, Wei Zhou, Zhaojuan Yue and Songlin Hu	3845
<i>Label-Specific Dual Graph Neural Network for Multi-Label Text Classification</i> Qianwen Ma, Chunyuan Yuan, Wei Zhou and Songlin Hu	3855
<i>TAN-NTM: Topic Attention Networks for Neural Topic Modeling</i> Madhur Panwar, Shashank Shailabh, Milan Aggarwal and Balaji Krishnamurthy	3865

<i>Cross-language Sentence Selection via Data Augmentation and Rationale Training</i> Yanda Chen, Chris Kedzie, Suraj Nair, Petra Galuscakova, Rui Zhang, Douglas Oard and Kathleen McKeown	3881
<i>A Neural Model for Joint Document and Snippet Ranking in Question Answering for Large Document Collections</i> Dimitris Pappas and Ion Androutsopoulos	3896
<i>W-RST: Towards a Weighted RST-style Discourse Framework</i> Patrick Huber, Wen Xiao and Giuseppe Carenini	3908
<i>ABCD: A Graph Framework to Convert Complex Sentences to a Covering Set of Simple Sentences</i> Yanjun Gao, Ting-Hao Huang and Rebecca J. Passonneau	3919
<i>Which Linguist Invented the Lightbulb? Presupposition Verification for Question-Answering</i> Najoung Kim, Ellie Pavlick, Burcu Karagol Ayan and Deepak Ramachandran	3932
<i>Adversarial Learning for Discourse Rhetorical Structure Parsing</i> Longyin Zhang, Fang Kong and Guodong Zhou	3946
<i>Exploring Discourse Structures for Argument Impact Classification</i> Xin Liu, Jiefu Ou, Yangqiu Song and Xin Jiang	3958
<i>Point, Disambiguate and Copy: Incorporating Bilingual Dictionaries for Neural Machine Translation</i> Tong Zhang, Long Zhang, Wei Ye, Bo Li, Jinan Sun, Xiaoyu Zhu, Wen Zhao and Shikun Zhang	3970
<i>VECO: Variable and Flexible Cross-lingual Pre-training for Language Understanding and Generation</i> Fuli Luo, Wei Wang, Jiahao Liu, Yijia Liu, Bin Bi, Songfang Huang, Fei Huang and Luo Si ..	3980
<i>A unified approach to sentence segmentation of punctuated text in many languages</i> Rachel Wicks and Matt Post	3995
<i>Towards User-Driven Neural Machine Translation</i> Huan Lin, Liang Yao, Baosong Yang, Dayiheng Liu, Haibo Zhang, Weihua Luo, Degen Huang and Jinsong Su	4008
<i>End-to-End Lexically Constrained Machine Translation for Morphologically Rich Languages</i> Josef Jon, João Paulo Aires, Dusan Varis and Ondřej Bojar	4019
<i>Handling Extreme Class Imbalance in Technical Logbook Datasets</i> Farhad Akhbardeh, Cecilia Ovesdotter Alm, Marcos Zampieri and Travis Desell	4034
<i>ILDC for CJPE: Indian Legal Documents Corpus for Court Judgment Prediction and Explanation</i> Vijit Malik, Rishabh Sanjay, Shubham Kumar Nigam, Kripabandhu Ghosh, Shouvik Kumar Guha, Arnab Bhattacharya and Ashutosh Modi	4046
<i>Supporting Cognitive and Emotional Empathic Writing of Students</i> Thiemo Wambsganss, Christina Niklaus, Matthias Söllner, Siegfried Handschuh and Jan Marco Leimeister	4063
<i>Dual Reader-Parser on Hybrid Textual and Tabular Evidence for Open Domain Question Answering</i> Alexander Hanbo Li, Patrick Ng, Peng Xu, Henghui Zhu, Zhiguo Wang and Bing Xiang	4078

<i>Generation-Augmented Retrieval for Open-Domain Question Answering</i> Yuning Mao, Pengcheng He, Xiaodong Liu, Yelong Shen, Jianfeng Gao, Jiawei Han and Weizhu Chen.....	4089
<i>Check It Again: Progressive Visual Question Answering via Visual Entailment</i> Qingyi Si, Zheng Lin, Ming yu Zheng, Peng Fu and Weiping Wang	4101
<i>A Mutual Information Maximization Approach for the Spurious Solution Problem in Weakly Supervised Question Answering</i> Zhihong Shao, Lifeng Shang, Qun Liu and Minlie Huang.....	4111
<i>Breaking Down Walls of Text: How Can NLP Benefit Consumer Privacy?</i> Abhilasha Ravichander, Alan W Black, Thomas Norton, Shomir Wilson and Norman Sadeh .	4125
<i>Supporting Land Reuse of Former Open Pit Mining Sites using Text Classification and Active Learning</i> Christopher Schröder, Kim Bürgl, Yves Annanias, Andreas Niekler, Lydia Müller, Daniel Wiegrefe, Christian Bender, Christoph Mengs, Gerik Scheuermann and Gerhard Heyer	4141
<i>Reliability Testing for Natural Language Processing Systems</i> Samson Tan, Shafiq Joty, Kathy Baxter, Araz Taeliagh, Gregory A. Bennett and Min-Yen Kan	4153
<i>Learning Language and Multimodal Privacy-Preserving Markers of Mood from Mobile Data</i> Paul Pu Liang, Terrance Liu, Anna Cai, Michal Muszynski, Ryo Ishii, Nick Allen, Randy Auerbach, David Brent, Ruslan Salakhutdinov and Louis-Philippe Morency	4170
<i>Anonymisation Models for Text Data: State of the art, Challenges and Future Directions</i> Pierre Lison, Ildikó Pilán, David Sanchez, Montserrat Batet and Lilja Øvrelid	4188
<i>End-to-End AMR Coreference Resolution</i> Qiankun Fu, Linfeng Song, Wenyu Du and Yue Zhang	4204
<i>How is BERT surprised? Layerwise detection of linguistic anomalies</i> Bai Li, Zining Zhu, Guillaume Thomas, Yang Xu and Frank Rudzicz	4215
<i>Psycholinguistic Tripartite Graph Network for Personality Detection</i> Tao Yang, Feifan Yang, Haolan Ouyang and Xiaojun Quan	4229
<i>Verb Metaphor Detection via Contextual Relation Learning</i> Wei Song, Shuhui Zhou, Ruiji Fu, Ting Liu and Lizhen Liu	4240
<i>Improving Speech Translation by Understanding and Learning from the Auxiliary Text Translation Task</i> Yun Tang, Juan Pino, Xian Li, Changhan Wang and Dmitriy Genzel	4252
<i>Probing Toxic Content in Large Pre-Trained Language Models</i> Nedjma Ousidhoum, Xinran Zhao, Tianqing Fang, Yangqiu Song and Dit-Yan Yeung	4262
<i>Societal Biases in Language Generation: Progress and Challenges</i> Emily Sheng, Kai-Wei Chang, Prem Natarajan and Nanyun Peng	4275
<i>Reservoir Transformers</i> Sheng Shen, Alexei Baevski, Ari Morcos, Kurt Keutzer, Michael Auli and Douwe Kiela	4294
<i>Subsequence Based Deep Active Learning for Named Entity Recognition</i> Puria Radmard, Yassir Fathullah and Aldo Lipani	4310

<i>Convolutions and Self-Attention: Re-interpreting Relative Positions in Pre-trained Language Models</i> Tyler Chang, Yifan Xu, Weijian Xu and Zhuowen Tu	4322
<i>BinaryBERT: Pushing the Limit of BERT Quantization</i> Haoli Bai, Wei Zhang, Lu Hou, Lifeng Shang, Jin JIN, Xin Jiang, Qun Liu, Michael Lyu and Irwin King	4334
<i>Are Pretrained Convolutions Better than Pretrained Transformers?</i> Yi Tay, Mostafa Dehghani, Jai Prakash Gupta, Vamsi Arribandi, Dara Bahri, Zhen Qin and Donald Metzler	4349
<i>PairRE: Knowledge Graph Embeddings via Paired Relation Vectors</i> Linlin Chao, Jianshan He, Taifeng Wang and Wei Chu	4360
<i>Hierarchy-aware Label Semantics Matching Network for Hierarchical Text Classification</i> Haibin Chen, Qianli Ma, Zhenxi Lin and Jiangyue Yan	4370
<i>HiddenCut: Simple Data Augmentation for Natural Language Understanding with Better Generalizability</i> Jiaao Chen, Dinghan Shen, Weizhu Chen and Diyi Yang	4380
<i>Neural Stylistic Response Generation with Disentangled Latent Variables</i> Qingfu Zhu, Wei-Nan Zhang, Ting Liu and William Yang Wang	4391
<i>Intent Classification and Slot Filling for Privacy Policies</i> Wasi Ahmad, Jianfeng Chi, Tu Le, Thomas Norton, Yuan Tian and Kai-Wei Chang	4402
<i>RADDLE: An Evaluation Benchmark and Analysis Platform for Robust Task-oriented Dialog Systems</i> Baolin Peng, Chunyuan Li, Zhu Zhang, Chenguang Zhu, Jinchao Li and Jianfeng Gao	4418
<i>Semantic Representation for Dialogue Modeling</i> Xuefeng Bai, Yulong Chen, Linfeng Song and Yue Zhang	4430
<i>A Pre-training Strategy for Zero-Resource Response Selection in Knowledge-Grounded Conversations</i> Chongyang Tao, Changyu Chen, Jiazhan Feng, Ji-Rong Wen and Rui Yan	4446
<i>Dependency-driven Relation Extraction with Attentive Graph Convolutional Networks</i> Yuanhe Tian, Guimin Chen, Yan Song and Xiang Wan	4458
<i>Evaluating Entity Disambiguation and the Role of Popularity in Retrieval-Based NLP</i> Anthony Chen, Pallavi Gudipati, Shayne Longpre, Xiao Ling and Sameer Singh	4472
<i>Evaluation Examples are not Equally Informative: How should that change NLP Leaderboards?</i> Pedro Rodriguez, Joe Barrow, Alexander Miserlis Hoyle, John P. Lalor, Robin Jia and Jordan Boyd-Graber	4486
<i>Claim Matching Beyond English to Scale Global Fact-Checking</i> Ashkan Kazemi, Kiran Garimella, Devin Gaffney and Scott Hale	4504
<i>SemFace: Pre-training Encoder and Decoder with a Semantic Interface for Neural Machine Translation</i> Shuo Ren, Long Zhou, Shujie Liu, Furu Wei, Ming Zhou and Shuai Ma	4518
<i>Energy-Based Reranking: Improving Neural Machine Translation Using Energy-Based Models</i> Sumanta Bhattacharyya, Amirmohammad Rooshenas, Subhajit Naskar, Simeng Sun, Mohit Iyyer and Andrew McCallum	4528

<i>Syntax-augmented Multilingual BERT for Cross-lingual Transfer</i>	
Wasi Ahmad, Haoran Li, Kai-Wei Chang and Yashar Mehdad	4538
<i>How to Adapt Your Pretrained Multilingual Model to 1600 Languages</i>	
Abteen Ebrahimi and Katharina Kann	4555
<i>Weakly Supervised Named Entity Tagging with Learnable Logical Rules</i>	
Jiacheng Li, Haibo Ding, Jingbo Shang, Julian McAuley and Zhe Feng	4568
<i>Prefix-Tuning: Optimizing Continuous Prompts for Generation</i>	
Xiang Lisa Li and Percy Liang	4582
<i>One2Set: Generating Diverse Keyphrases as a Set</i>	
Jiacheng Ye, Tao Gui, Yichao Luo, Yige Xu and Qi Zhang	4598
<i>Continuous Language Generative Flow</i>	
Zineng Tang, Shiyue Zhang, Hyounghun Kim and Mohit Bansal	4609
<i>TWAG: A Topic-Guided Wikipedia Abstract Generator</i>	
Fangwei Zhu, Shangqing Tu, Jiaxin Shi, Juanzi Li, Lei Hou and Tong Cui	4623
<i>ForecastQA: A Question Answering Challenge for Event Forecasting with Temporal Text Data</i>	
Woojeong Jin, Rahul Khanna, Suji Kim, Dong-Ho Lee, Fred Morstatter, Aram Galstyan and Xiang Ren	4636
<i>Recursive Tree-Structured Self-Attention for Answer Sentence Selection</i>	
Khalil Mrini, Emilia Farcas and Ndapa Nakashole	4651
<i>How Knowledge Graph and Attention Help? A Qualitative Analysis into Bag-level Relation Extraction</i>	
Zikun Hu, Yixin Cao, Lifu Huang and Tat-Seng Chua	4662
<i>Trigger is Not Sufficient: Exploiting Frame-aware Knowledge for Implicit Event Argument Extraction</i>	
Kaiwen Wei, Xian Sun, Zequn Zhang, Jingyuan Zhang, Guo Zhi and li jin	4672
<i>Element Intervention for Open Relation Extraction</i>	
Fangchao Liu, Lingyong Yan, Hongyu Lin, Xianpei Han and Le Sun	4683
<i>AdaTag: Multi-Attribute Value Extraction from Product Profiles with Adaptive Decoding</i>	
Jun Yan, Nasser Zalmout, Yan Liang, Christan Grant, Xiang Ren and Xin Luna Dong	4694
<i>CoRI: Collective Relation Integration with Data Augmentation for Open Information Extraction</i>	
Zhengbao Jiang, Jialong Han, BUNYAMIN SISMAN and Xin Luna Dong	4706
<i>Benchmarking Scalable Methods for Streaming Cross Document Entity Coreference</i>	
Robert L Logan IV, Andrew McCallum, Sameer Singh and Dan Bikel	4717
<i>Search from History and Reason for Future: Two-stage Reasoning on Temporal Knowledge Graphs</i>	
Zixuan Li, Xiaolong Jin, Saiping Guan, Wei Li, Jiafeng Guo, Yuanzhuo Wang and Xueqi Cheng	4732
<i>Employing Argumentation Knowledge Graphs for Neural Argument Generation</i>	
Khalid Al Khatib, Lukas Trautner, Henning Wachsmuth, Yufang Hou and Benno Stein	4744
<i>Learning Span-Level Interactions for Aspect Sentiment Triplet Extraction</i>	
Lu Xu, Yew Ken Chia and Lidong Bing	4755

<i>On Compositional Generalization of Neural Machine Translation</i> Yafu Li, Yongjing Yin, Yulong Chen and Yue Zhang	4767
<i>Mask-Align: Self-Supervised Neural Word Alignment</i> Chi Chen, Maosong Sun and Yang Liu	4781
<i>GWLAN: General Word-Level AutocompletiON for Computer-Aided Translation</i> Huayang Li, Lemao Liu, Guoping Huang and Shuming Shi	4792
<i>De-biasing Distantly Supervised Named Entity Recognition via Causal Intervention</i> Wenkai Zhang, Hongyu Lin, Xianpei Han and Le Sun	4803
<i>A Span-Based Model for Joint Overlapped and Discontinuous Named Entity Recognition</i> Fei Li, ZhiChao Lin, Meishan Zhang and Donghong Ji	4814
<i>MLBiNet: A Cross-Sentence Collective Event Detection Network</i> Dongfang Lou, Zhilin Liao, Shumin Deng, Ningyu Zhang and Huajun Chen	4829
<i>Exploiting Document Structures and Cluster Consistencies for Event Coreference Resolution</i> Hieu Minh Tran, Duy Phung and Thien Huu Nguyen	4840
<i>StereoRel: Relational Triple Extraction from a Stereoscopic Perspective</i> Xuetao Tian, Liping Jing, Lu He and Feng Liu	4851
<i>Knowledge-Enriched Event Causality Identification via Latent Structure Induction Networks</i> Pengfei Cao, Xinyu Zuo, Yubo Chen, Kang Liu, Jun Zhao, Yuguang Chen and Weihua Peng ..	4862
<i>Turn the Combination Lock: Learnable Textual Backdoor Attacks via Word Substitution</i> Fanchao Qi, Yuan Yao, Sophia Xu, Zhiyuan Liu and Maosong Sun	4873
<i>Parameter-Efficient Transfer Learning with Diff Pruning</i> Demi Guo, Alexander Rush and Yoon Kim	4884
<i>R2D2: Recursive Transformer based on Differentiable Tree for Interpretable Hierarchical Language Modeling</i> Xiang Hu, Haitao Mi, Zujie Wen, Yafang Wang, Yi Su, Jing Zheng and Gerard de Melo	4897
<i>Risk Minimization for Zero-shot Sequence Labeling</i> Zechuan Hu, Yong Jiang, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang and Kewei Tu	4909
<i>WARP: Word-level Adversarial ReProgramming</i> Karen Hambardzumyan, Hrant Khachatrian and Jonathan May	4921
<i>Lexicon Learning for Few Shot Sequence Modeling</i> Ekin Akyurek and Jacob Andreas	4934
<i>Personalized Transformer for Explainable Recommendation</i> Lei Li, Yongfeng Zhang and Li Chen	4947
<i>Generating SOAP Notes from Doctor-Patient Conversations Using Modular Summarization Techniques</i> Kundan Krishna, Sopan Khosla, Jeffrey Bigham and Zachary C. Lipton	4958
<i>Tail-to-Tail Non-Autoregressive Sequence Prediction for Chinese Grammatical Error Correction</i> Piji Li and Shuming Shi	4973

<i>Early Detection of Sexual Predators in Chats</i> Matthias Vogt, Ulf Leser and Alan Akbik	4985
<i>Writing by Memorizing: Hierarchical Retrieval-based Medical Report Generation</i> Xingyi Yang, Muchao Ye, Quanzeng You and Fenglong Ma	5000
<i>Concept-Based Label Embedding via Dynamic Routing for Hierarchical Text Classification</i> Xuepeng Wang, Li Zhao, Bing Liu, Tao Chen, Feng Zhang and Di Wang	5010
<i>VisualSparta: An Embarrassingly Simple Approach to Large-scale Text-to-Image Search with Weighted Bag-of-words</i> Xiaopeng Lu, Tiancheng Zhao and Kyusong Lee	5020
<i>Few-Shot Text Ranking with Meta Adapted Synthetic Weak Supervision</i> Si Sun, Yingzhuo Qian, Zhenghao Liu, Chenyan Xiong, Kaitao Zhang, Jie Bao, Zhiyuan Liu and Paul Bennett	5030
<i>Semi-Supervised Text Classification with Balanced Deep Representation Distributions</i> Changchun Li, Ximing Li and Jihong Ouyang	5044
<i>Improving Document Representations by Generating Pseudo Query Embeddings for Dense Retrieval</i> Hongyin Tang, Xingwu Sun, Beihong Jin, Jingang Wang, Fuzheng Zhang and Wei Wu	5054
<i>CoNERT: A Contrastive Framework for Self-Supervised Sentence Representation Transfer</i> Yuanmeng Yan, Rumei Li, Sirui Wang, Fuzheng Zhang, Wei Wu and Weiran Xu	5065
<i>Exploring Dynamic Selection of Branch Expansion Orders for Code Generation</i> Hui Jiang, Chulun Zhou, Fandong Meng, Biao Zhang, Jie Zhou, Degen Huang, Qingqiang Wu and Jinsong Su	5076
<i>COINS: Dynamically Generating CoNtextualized Inference Rules for Narrative Story Completion</i> Debjit Paul and Anette Frank	5086
<i>Reasoning over Entity-Action-Location Graph for Procedural Text Understanding</i> Hao Huang, Xiubo Geng, Jian Pei, Guodong Long and Daxin Jiang	5100
<i>From Paraphrasing to Semantic Parsing: Unsupervised Semantic Parsing via Synchronous Semantic Decoding</i> Shan Wu, Bo Chen, Chunlei Xin, Xianpei Han, Le Sun, Weipeng Zhang, Jiansong Chen, Fan Yang and Xunliang Cai	5110
<i>Pre-training Universal Language Representation</i> Yian Li and Hai Zhao	5122
<i>Structural Pre-training for Dialogue Comprehension</i> Zhuosheng Zhang and Hai Zhao	5134
<i>AutoTinyBERT: Automatic Hyper-parameter Optimization for Efficient Pre-trained Language Models</i> Yichun Yin, Cheng Chen, Lifeng Shang, Xin Jiang, Xiao Chen and Qun Liu	5146
<i>Data Augmentation with Adversarial Training for Cross-Lingual NLI</i> Xin Dong, Yaxin Zhu, Zuohui Fu, Dongkuan Xu and Gerard de Melo	5158
<i>Bootstrapped Unsupervised Sentence Representation Learning</i> Yan Zhang, Ruidan He, ZUOZHU LIU, Lidong Bing and Haizhou Li	5168

<i>Learning Event Graph Knowledge for Abductive Reasoning</i> Li Du, Xiao Ding, Ting Liu and Bing Qin	5181
<i>A Cognitive Regularizer for Language Modeling</i> Jason Wei, Clara Meister and Ryan Cotterell	5191
<i>Lower Perplexity is Not Always Human-Like</i> Tatsuki Kuribayashi, Yohei Oseki, Takumi Ito, Ryo Yoshida, Masayuki Asahara and Kentaro Inui 5203	
<i>Word Sense Disambiguation: Towards Interactive Context Exploitation from Both Word and Sense Perspectives</i> Ming Wang and Yinglin Wang	5218
<i>A Knowledge-Guided Framework for Frame Identification</i> Xuefeng Su, Ru Li, Xiaoli Li, Jeff Z. Pan, Hu Zhang, Qinghua Chai and Xiaoqi Han	5230
<i>Obtaining Better Static Word Embeddings Using Contextual Embedding Models</i> Prakhar Gupta and Martin Jaggi	5241
<i>Meta-Learning with Variational Semantic Memory for Word Sense Disambiguation</i> Yingjun Du, Nithin Holla, Xiantong Zhen, Cees Snoek and Ekaterina Shutova	5254
<i>LexFit: Lexical Fine-Tuning of Pretrained Language Models</i> Ivan Vulić, Edoardo Maria Ponti, Anna Korhonen and Goran Glavaš	5269
<i>Text-Free Image-to-Speech Synthesis Using Learned Segmental Units</i> Wei-Ning Hsu, David Harwath, Tyler Miller, Christopher Song and James Glass	5284
<i>CTFN: Hierarchical Learning for Multimodal Sentiment Analysis Using Coupled-Translation Fusion Network</i> Jiajia Tang, Kang Li, Xuanyu Jin, Andrzej Cichocki, Qibin Zhao and Wanzeng Kong	5301
<i>Positional Artefacts Propagate Through Masked Language Model Embeddings</i> Ziyang Luo, Artur Kulmizev and Xiaoxi Mao	5312
<i>Language Model Evaluation Beyond Perplexity</i> Clara Meister and Ryan Cotterell	5328
<i>Learning to Explain: Generating Stable Explanations Fast</i> Xuelin Situ, Ingrid Zukerman, Cecile Paris, Sameen Maruf and Gholamreza Haffari	5340
<i>StereoSet: Measuring stereotypical bias in pretrained language models</i> Moin Nadeem, Anna Bethke and Siva Reddy	5356
<i>Alignment Rationale for Natural Language Inference</i> Zhongtao Jiang, Yuanzhe Zhang, Zhao Yang, Jun Zhao and Kang Liu	5372
<i>Enabling Lightweight Fine-tuning for Pre-trained Language Model Compression based on Matrix Product Operators</i> Peiyu Liu, Ze-Feng Gao, Wayne Xin Zhao, Zhi-Yuan Xie, Zhong-Yi Lu and Ji-Rong Wen ...	5388
<i>On Sample Based Explanation Methods for NLP: Faithfulness, Efficiency and Semantic Evaluation</i> Wei Zhang, Ziming Huang, Yada Zhu, Guangnan Ye, Xiaodong Cui and Fan Zhang	5399

<i>Syntax-Enhanced Pre-trained Model</i>	
Zenan Xu, Daya Guo, Duyu Tang, Qinliang Su, Linjun Shou, Ming Gong, Wanjun Zhong, Xiaojun Quan, Daxin Jiang and Nan Duan	5412
<i>Matching Distributions between Model and Data: Cross-domain Knowledge Distillation for Unsupervised Domain Adaptation</i>	
Bo Zhang, Xiaoming Zhang, Yun Liu, Lei Cheng and Zhoujun Li	5423
<i>Counterfactual Inference for Text Classification Debiasing</i>	
Chen Qian, Fuli Feng, Lijie Wen, Chunping Ma and Pengjun Xie	5434
<i>HieRec: Hierarchical User Interest Modeling for Personalized News Recommendation</i>	
Tao Qi, Fangzhao Wu, Chuhan Wu, Peiru Yang, Yang Yu, Xing Xie and Yongfeng Huang ...	5446
<i>PP-Rec: News Recommendation with Personalized User Interest and Time-aware News Popularity</i>	
Tao Qi, Fangzhao Wu, Chuhan Wu and Yongfeng Huang	5457
<i>Article Reranking by Memory-Enhanced Key Sentence Matching for Detecting Previously Fact-Checked Claims</i>	
Qiang Sheng, Juan Cao, Xueyao Zhang, Xirong Li and Lei Zhong	5468
<i>Defense against Synonym Substitution-based Adversarial Attacks via Dirichlet Neighborhood Ensemble</i>	
Yi Zhou, Xiaoqing Zheng, Cho-Jui Hsieh, Kai-Wei Chang and Xuanjing Huang	5482
<i>Shortformer: Better Language Modeling using Shorter Inputs</i>	
Ofir Press, Noah A. Smith and Mike Lewis	5493
<i>BanditMTL: Bandit-based Multi-task Learning for Text Classification</i>	
Yuren Mao, Zekai Wang, Weiwei Liu, Xuemin Lin and Wenbin Hu	5506
<i>Unified Interpretation of Softmax Cross-Entropy and Negative Sampling: With Case Study for Knowledge Graph Embedding</i>	
Hidetaka Kamigaito and Katsuhiko Hayashi	5517
<i>De-Confounded Variational Encoder-Decoder for Logical Table-to-Text Generation</i>	
Wenqing Chen, Jidong Tian, Yitian Li, Hao He and Yaohui Jin	5532
<i>Rethinking Stealthiness of Backdoor Attack against NLP Models</i>	
Wenkai Yang, Yankai Lin, Peng Li, Jie Zhou and Xu Sun	5543
<i>Crowdsourcing Learning as Domain Adaptation: A Case Study on Named Entity Recognition</i>	
Xin Zhang, Guangwei Xu, Yueheng Sun, Meishan Zhang and Pengjun Xie	5558
<i>Exploring Distantly-Labeled Rationales in Neural Network Models</i>	
Quzhe Huang, Shengqi Zhu, Yansong Feng and Dongyan Zhao	5571
<i>Learning to Perturb Word Embeddings for Out-of-distribution QA</i>	
Seanie Lee, Minki Kang, Juho Lee and Sung Ju Hwang	5583
<i>Maria: A Visual Experience Powered Conversational Agent</i>	
Zujie Liang, Huang Hu, Can Xu, Chongyang Tao, Xiubo Geng, yining Chen, Fan Liang and Daxin Jiang	5596
<i>A Human-machine Collaborative Framework for Evaluating Malevolence in Dialogues</i>	
Yangjun Zhang, Pengjie Ren and Maarten de Rijke	5612

<i>Generating Relevant and Coherent Dialogue Responses using Self-Separated Conditional Variational AutoEncoders</i>	
Bin Sun, Shaoxiong Feng, Yiwei Li, Jiamou Liu and Kan Li	5624
<i>Learning to Ask Conversational Questions by Optimizing Levenshtein Distance</i>	
Zhongkun Liu, Pengjie Ren, Zhumin CHEN, Zhaochun Ren, Maarten de Rijke and Ming Zhou	5638
<i>DVD: A Diagnostic Dataset for Multi-step Reasoning in Video Grounded Dialogue</i>	
Hung Le, Chinnadhurai Sankar, Seungwhan Moon, Ahmad Beirami, Alborz Geramifard and Satwik Kottur	5651
<i>MMGCN: Multimodal Fusion via Deep Graph Convolution Network for Emotion Recognition in Conversation</i>	
Jingwen Hu, Yuchen Liu, Jinming Zhao and Qin Jin	5666
<i>DynaEval: Unifying Turn and Dialogue Level Evaluation</i>	
Chen Zhang, Yiming Chen, Luis Fernando D’Haro, Yan Zhang, Thomas Friedrichs, Grandee Lee and Haizhou Li	5676
<i>CoSQA: 20,000+ Web Queries for Code Search and Question Answering</i>	
Junjie Huang, Duyu Tang, Linjun Shou, Ming Gong, Ke Xu, Daxin Jiang, Ming Zhou and Nan Duan	5690
<i>Rewriter-Evaluator Architecture for Neural Machine Translation</i>	
Yangming Li and Kaisheng Yao	5701
<i>Modeling Bilingual Conversational Characteristics for Neural Chat Translation</i>	
Yunlong Liang, Fandong Meng, Yufeng Chen, Jinan Xu and Jie Zhou	5711
<i>Importance-based Neuron Allocation for Multilingual Neural Machine Translation</i>	
Wanying Xie, Yang Feng, Shuhao Gu and Dong Yu	5725
<i>Transfer Learning for Sequence Generation: from Single-source to Multi-source</i>	
Xuancheng Huang, jingfang xu, Maosong Sun and Yang Liu	5738
<i>A Closer Look at Few-Shot Crosslingual Transfer: The Choice of Shots Matters</i>	
Mengjie Zhao, Yi Zhu, Ehsan Shareghi, Ivan Vulić, Roi Reichart, Anna Korhonen and Hinrich Schütze	5751
<i>Coreference Reasoning in Machine Reading Comprehension</i>	
Mingzhu Wu, Nafise Sadat Moosavi, Dan Roth and Iryna Gurevych	5768
<i>Adapting Unsupervised Syntactic Parsing Methodology for Discourse Dependency Parsing</i>	
Liwen Zhang, Ge Wang, Wenjuan Han and Kewei Tu	5782
<i>A Conditional Splitting Framework for Efficient Constituency Parsing</i>	
Thanh-Tung Nguyen, Xuan-Phi Nguyen, Shafiq Joty and Xiaoli Li	5795
<i>A Unified Generative Framework for Various NER Subtasks</i>	
Hang Yan, Tao Gui, Junqi Dai, Qipeng Guo, Zheng Zhang and Xipeng Qiu	5808
<i>An In-depth Study on Internal Structure of Chinese Words</i>	
Chen Gong, Saihao Huang, Houquan Zhou, Zhenghua Li, Min Zhang, Zhefeng Wang, baoxing Huai and Nicholas Jing Yuan	5823

<i>MulDA: A Multilingual Data Augmentation Framework for Low-Resource Cross-Lingual NER</i> Linlin Liu, BOSHEG DING, Lidong Bing, Shafiq Joty, Luo Si and Chunyan Miao	5834
<i>Lexicon Enhanced Chinese Sequence Labeling Using BERT Adapter</i> Wei Liu, Xiyan Fu, Yue Zhang and Wenming Xiao.....	5847
<i>Math Word Problem Solving with Explicit Numerical Values</i> Qinzhuo Wu, Qi Zhang, Zhongyu Wei and Xuanjing Huang	5859
<i>Neural-Symbolic Solver for Math Word Problems with Auxiliary Tasks</i> Jinghui Qin, Xiaodan Liang, Yining Hong, Jianheng Tang and Liang Lin.....	5870
<i>SMedBERT: A Knowledge-Enhanced Pre-trained Language Model with Structured Semantics for Medical Text Mining</i> Taolin Zhang, Zerui Cai, Chengyu Wang, Minghui Qiu, Bite Yang and XIAOFENG HE	5882
<i>What is Your Article Based On? Inferring Fine-grained Provenance</i> Yi Zhang, Zachary Ives and Dan Roth	5894
<i>Cross-modal Memory Networks for Radiology Report Generation</i> Zhihong Chen, Yaling Shen, Yan Song and Xiang Wan.....	5904
<i>Controversy and Conformity: from Generalized to Personalized Aggressiveness Detection</i> Kamil Kanclerz, Alicja Figas, Marcin Gruza, Tomasz Kajdanowicz, Jan Kocon, Daria Puchalska and Przemyslaw Kazienko	5915
<i>Multi-perspective Coherent Reasoning for Helpfulness Prediction of Multimodal Reviews</i> Junhao Liu, Zhen Hai, Min Yang and Lidong Bing	5927
<i>Instantaneous Grammatical Error Correction with Shallow Aggressive Decoding</i> Xin Sun, Tao Ge, Furu Wei and Houfeng Wang	5937
<i>Automatic ICD Coding via Interactive Shared Representation Networks with Self-distillation Mechanism</i> Tong Zhou, Pengfei Cao, Yubo Chen, Kang Liu, Jun Zhao, Kun Niu, Weifeng Chong and Shengping Liu	5948
<i>PHMOSpell: Phonological and Morphological Knowledge Guided Chinese Spelling Check</i> Li Huang, Junjie Li, Weiwei Jiang, Zhiyu Zhang, Minchuan Chen, Shaojun Wang and Jing Xiao	5958
<i>Guiding the Growth: Difficulty-Controllable Question Generation through Step-by-Step Rewriting</i> Yi Cheng, Siyao Li, Bang Liu, Ruihui Zhao, Sujian Li, Chenghua Lin and Yefeng Zheng	5968
<i>Improving Encoder by Auxiliary Supervision Tasks for Table-to-Text Generation</i> Liang Li, Can Ma, Yinliang Yue and Dayong Hu	5979
<i>POS-Constrained Parallel Decoding for Non-autoregressive Generation</i> Kexin Yang, Wenqiang Lei, Dayiheng Liu, Weizhen Qi and Jiancheng Lv	5990
<i>Bridging Subword Gaps in Pretrain-Finetune Paradigm for Natural Language Generation</i> Xin Liu, Baosong Yang, Dayiheng Liu, Haibo Zhang, Weihua Luo, Min Zhang, Haiying Zhang and Jinsong Su.....	6001
<i>TGEA: An Error-Annotated Dataset and Benchmark Tasks for TextGeneration from Pretrained Language Models</i> Jie He, Bo Peng, Yi Liao, Qun Liu and Deyi Xiong	6012

<i>Long-Span Summarization via Local Attention and Content Selection</i> Potsawee Manakul and Mark Gales	6026
<i>RepSum: Unsupervised Dialogue Summarization based on Replacement Strategy</i> Xiyan Fu, Yating Zhang, Tianyi Wang, Xiaozhong Liu, Changlong Sun and Zhenglu Yang ...	6042
<i>BASS: Boosting Abstractive Summarization with Unified Semantic Graph</i> Wenhao Wu, Wei Li, Xinyan Xiao, Jiachen Liu, Ziqiang Cao, Sujian Li, Hua Wu and Haifeng Wang	6052
<i>Capturing Relations between Scientific Papers: An Abstractive Model for Related Work Section Generation</i> Xiuying Chen, Hind Alamro, Mingzhe Li, Shen Gao, Xiangliang Zhang, Dongyan Zhao and Rui Yan	6068
<i>Focus Attention: Promoting Faithfulness and Diversity in Summarization</i> Rahul Aralikkatte, Shashi Narayan, Joshua Maynez, Sascha Rothe and Ryan McDonald	6078
<i>Generating Query Focused Summaries from Query-Free Resources</i> Yumo Xu and Mirella Lapata	6096
<i>Robustifying Multi-hop QA through Pseudo-Evidentiality Training</i> Kyungjae Lee, Seung-won Hwang, Sang-eun Han and Dohyeon Lee	6110
<i>xMoCo: Cross Momentum Contrastive Learning for Open-Domain Question Answering</i> Nan Yang, Furu Wei, Binxing Jiao, Daxing Jiang and Linjun Yang	6120
<i>Learn to Resolve Conversational Dependency: A Consistency Training Framework for Conversational Question Answering</i> Gangwoo Kim, Hyunjae Kim, Jungsoo Park and Jaewoo Kang	6130
<i>PhotoChat: A Human-Human Dialogue Dataset With Photo Sharing Behavior For Joint Image-Text Modeling</i> Xiaoxue Zang, Lijuan Liu, Maria Wang, Yang Song, Hao Zhang and Jindong Chen	6142
<i>Good for Misconceived Reasons: An Empirical Revisiting on the Need for Visual Context in Multimodal Machine Translation</i> Zhiyong Wu, Lingpeng Kong, Wei Bi, Xiang Li and Ben Kao	6153
<i>Attend What You Need: Motion-Appearance Synergistic Networks for Video Question Answering</i> Ahjeong Seo, Gi-Cheon Kang, Joonhan Park and Byoung-Tak Zhang	6167
<i>BERTifying the Hidden Markov Model for Multi-Source Weakly Supervised Named Entity Recognition</i> Yinghao Li, Pranav Shetty, Lucas Liu, Chao Zhang and Le Song	6178
<i>CIL: Contrastive Instance Learning Framework for Distantly Supervised Relation Extraction</i> Tao Chen, Haizhou Shi, Siliang Tang, Zhigang Chen, Fei Wu and Yueting Zhuang	6191
<i>SENT: Sentence-level Distant Relation Extraction via Negative Training</i> Ruotian Ma, Tao Gui, Linyang Li, Qi Zhang, Xuanjing Huang and Yaqian Zhou	6201
<i>An End-to-End Progressive Multi-Task Learning Framework for Medical Named Entity Recognition and Normalization</i> Baohang Zhou, Xiangrui Cai, Ying Zhang and Xiaojie Yuan	6214

<i>PRGC: Potential Relation and Global Correspondence Based Joint Relational Triple Extraction</i>	
Hengyi Zheng, rui wen, Xi Chen, Yifan Yang, Yunyan Zhang, Ziheng Zhang, Ningyu Zhang, Bin Qin, Xu Ming and Yefeng Zheng	6225
<i>Learning from Miscellaneous Other-Class Words for Few-shot Named Entity Recognition</i>	
Meihan Tong, Shuai Wang, Bin Xu, Yixin Cao, Minghui Liu, Lei Hou and Juanzi Li	6236
<i>Joint Biomedical Entity and Relation Extraction with Knowledge-Enhanced Collective Inference</i>	
Tuan Lai, Heng Ji, ChengXiang Zhai and Quan Hung Tran	6248
<i>Fine-grained Information Extraction from Biomedical Literature based on Knowledge-enriched Abstract Meaning Representation</i>	
Zixuan Zhang, Nikolaus Parulian, Heng Ji, Ahmed Elsayed, Skatje Myers and Martha Palmer	6261
<i>Unleash GPT-2 Power for Event Detection</i>	
Amir Pouran Ben Veysseh, Viet Lai, Franck Dernoncourt and Thien Huu Nguyen.....	6271
<i>CLEVE: Contrastive Pre-training for Event Extraction</i>	
Ziqi Wang, Xiaozhi Wang, Xu Han, Yankai Lin, Lei Hou, Zhiyuan Liu, Peng Li, Juanzi Li and Jie Zhou.....	6283
<i>Document-level Event Extraction via Parallel Prediction Networks</i>	
Hang Yang, Dianbo Sui, Yubo Chen, Kang Liu, Jun Zhao and Taifeng Wang	6298
<i>StructuralLM: Structural Pre-training for Form Understanding</i>	
Chenliang Li, Bin Bi, Ming Yan, Wei Wang, Songfang Huang, Fei Huang and Luo Si	6309
<i>Dual Graph Convolutional Networks for Aspect-based Sentiment Analysis</i>	
Ruifan Li, Hao Chen, Fangxiang Feng, Zhanyu Ma, Xiaojie WANG and Eduard Hovy	6319
<i>Multi-Label Few-Shot Learning for Aspect Category Detection</i>	
Mengting Hu, Shiwan Zhao, Honglei Guo, Chao Xue, Hang Gao, Tiegang Gao, renhong cheng and Zhong Su.....	6330
<i>Argument Pair Extraction via Attention-guided Multi-Layer Multi-Cross Encoding</i>	
Liyang Cheng, Tianyu Wu, Lidong Bing and Luo Si.....	6341
<i>A Neural Transition-based Model for Argumentation Mining</i>	
Jianzhu Bao, Chuang Fan, Jipeng Wu, Yixue Dang, Jiachen Du and Ruifeng Xu	6354
<i>Keep It Simple: Unsupervised Simplification of Multi-Paragraph Text</i>	
Philippe Laban, Tobias Schnabel, Paul Bennett and Marti A. Hearst	6365
<i>Long Text Generation by Modeling Sentence-Level and Discourse-Level Coherence</i>	
Jian Guan, Xiaoxi Mao, changjie fan, Zitao Liu, Wenbiao Ding and Minlie Huang	6379
<i>OpenMEVA: A Benchmark for Evaluating Open-ended Story Generation Metrics</i>	
Jian Guan, Zhexin Zhang, Zhuoer Feng, Zitao Liu, Wenbiao Ding, Xiaoxi Mao, changjie fan and Minlie Huang	6394
<i>DYPLOC: Dynamic Planning of Content Using Mixed Language Models for Text Generation</i>	
Xinyu Hua, Ashwin Sreevatsa and Lu Wang.....	6408
<i>Controllable Open-ended Question Generation with A New Question Type Ontology</i>	
Shuyang Cao and Lu Wang.....	6424

<i>BERTGen: Multi-task Generation through BERT</i>	
Faidon Mitzalis, Ozan Caglayan, Pranava Madhyastha and Lucia Specia	6440
<i>Selective Knowledge Distillation for Neural Machine Translation</i>	
Fusheng Wang, Jianhao Yan, Fandong Meng and Jie Zhou	6456
<i>Measuring and Increasing Context Usage in Context-Aware Machine Translation</i>	
Patrick Fernandes, Kayo Yin, Graham Neubig and André F. T. Martins	6467
<i>Beyond Offline Mapping: Learning Cross-lingual Word Embeddings through Context Anchoring</i>	
Aitor Ormazabal, Mikel Artetxe, Aitor Soroa, Gorka Labaka and Eneko Agirre	6479
<i>CCMatrix: Mining Billions of High-Quality Parallel Sentences on the Web</i>	
Holger Schwenk, Guillaume Wenzek, Sergey Edunov, Edouard Grave, Armand Joulin and Angela Fan	6490
<i>Length-Adaptive Transformer: Train Once with Length Drop, Use Anytime with Search</i>	
Gyuwan Kim and Kyunghyun Cho	6501
<i>GhostBERT: Generate More Features with Cheap Operations for BERT</i>	
Zhiqi Huang, Lu Hou, Lifeng Shang, Xin Jiang, Xiao Chen and Qun Liu	6512
<i>Super Tickets in Pre-Trained Language Models: From Model Compression to Improving Generalization</i>	
Chen Liang, Simiao Zuo, Minshuo Chen, Haoming Jiang, Xiaodong Liu, Pengcheng He, Tuo Zhao and Weizhu Chen	6524
<i>A Novel Estimator of Mutual Information for Learning to Disentangle Textual Representations</i>	
Pierre Colombo, Pablo Piantanida and Chloé Clavel	6539
<i>Determinantal Beam Search</i>	
Clara Meister, Martina Forster and Ryan Cotterell	6551
<i>Multi-hop Graph Convolutional Network with High-order Chebyshev Approximation for Text Reasoning</i>	
Shuoran Jiang, Qingcai Chen, Xin Liu, Baotian Hu and Lisai Zhang	6563
<i>Accelerating Text Communication via Abbreviated Sentence Input</i>	
Jiban Adhikary, Jamie Berger and Keith Vertanen	6574
<i>Regression Bugs Are In Your Model! Measuring, Reducing and Analyzing Regressions In NLP Model Updates</i>	
YUQING XIE, Yi-An Lai, Yuanjun Xiong, Yi Zhang and Stefano Soatto	6589
<i>Detecting Propaganda Techniques in Memes</i>	
Dimitar Dimitrov, Bishr Bin Ali, Shaden Shaar, Firoj Alam, Fabrizio Silvestri, Hamed Firooz, Preslav Nakov and Giovanni Da San Martino	6603
<i>On the Efficacy of Adversarial Data Collection for Question Answering: Results from a Large-Scale Randomized Study</i>	
Divyansh Kaushik, Douwe Kiela, Zachary C. Lipton and Wen-tau Yih	6618
<i>Learning Dense Representations of Phrases at Scale</i>	
Jinhyuk Lee, Mujeen Sung, Jaewoo Kang and Danqi Chen	6634
<i>End-to-End Training of Neural Retrievers for Open-Domain Question Answering</i>	
Devendra Sachan, Mostofa Patwary, Mohammad Shoeybi, Neel Kant, Wei Ping, William L. Hamilton and Bryan Catanzaro	6648

<i>Question Answering Over Temporal Knowledge Graphs</i>	
Apoorv Saxena, Soumen Chakrabarti and Partha Talukdar	6663
<i>Language Model Augmented Relevance Score</i>	
Ruibo Liu, Jason Wei and Soroush Vosoughi	6677
<i>DExperts: Decoding-Time Controlled Text Generation with Experts and Anti-Experts</i>	
Alisa Liu, Maarten Sap, Ximing Lu, Swabha Swayamdipta, Chandra Bhagavatula, Noah A. Smith and Yejin Choi	6691
<i>Polyjuice: Generating Counterfactuals for Explaining, Evaluating, and Improving Models</i>	
Tongshuang Wu, Marco Tulio Ribeiro, Jeffrey Heer and Daniel Weld	6707
<i>Metaphor Generation with Conceptual Mappings</i>	
Kevin Stowe, Tuhin Chakrabarty, Nanyun Peng, Smaranda Muresan and Iryna Gurevych	6724
<i>Learning Latent Structures for Cross Action Phrase Relations in Wet Lab Protocols</i>	
Chaitanya Kulkarni, Jany Chan, Eric Fosler-Lussier and Raghu Machiraju	6737
<i>Multimodal Multi-Speaker Merger & Acquisition Financial Modeling: A New Task, Dataset, and Neural Baselines</i>	
Ramit Sawhney, Mihir Goyal, Prakhar Goel, Puneet Mathur and Rajiv Ratn Shah	6751
<i>Mid-Air Hand Gestures for Post-Editing of Machine Translation</i>	
Rashad Albo Jamara, Nico Herbig, Antonio Krüger and Josef van Genabith	6763
<i>Inter-GPS: Interpretable Geometry Problem Solving with Formal Language and Symbolic Reasoning</i>	
Pan Lu, Ran Gong, Shibiao Jiang, Liang Qiu, Siyuan Huang, Xiaodan Liang and Song-Chun Zhu	6774
<i>Joint Verification and Reranking for Open Fact Checking Over Tables</i>	
Michael Sejr Schlichtkrull, Vladimir Karpukhin, Barlas Oguz, Mike Lewis, Wen-tau Yih and Sebastian Riedel	6787
<i>Evaluation of Thematic Coherence in Microblogs</i>	
Iman Munire Bilal, Bo Wang, Maria Liakata, Rob Procter and Adam Tsakalidis	6800
<i>Neural semi-Markov CRF for Monolingual Word Alignment</i>	
Wuwei Lan, Chao Jiang and Wei Xu	6815
<i>Privacy at Scale: Introducing the PrivaSeer Corpus of Web Privacy Policies</i>	
Mukund Srinath, Shomir Wilson and C Lee Giles	6829
<i>The statistical advantage of automatic NLG metrics at the system level</i>	
Johnny Wei and Robin Jia	6840
<i>Are Missing Links Predictable? An Inferential Benchmark for Knowledge Graph Completion</i>	
Yixin Cao, Xiang Ji, Xin Lv, Juanzi Li, Yonggang Wen and Hanwang Zhang	6855
<i>ConvoSumm: Conversation Summarization Benchmark and Improved Abstractive Summarization with Argument Mining</i>	
Alexander Fabbri, Faiyaz Rahman, Imad Rizvi, Borui Wang, Haoran Li, Yashar Mehdad and Dragomir Radev	6866

<i>Improving Factual Consistency of Abstractive Summarization via Question Answering</i>	
Feng Nan, Cicero Nogueira dos Santos, Henghui Zhu, Patrick Ng, Kathleen McKeown, Ramesh Nallapati, Dejiao Zhang, Zhiguo Wang, Andrew O. Arnold and Bing Xiang	6881
<i>EmailSum: Abstractive Email Thread Summarization</i>	
Shiyue Zhang, Asli Celikyilmaz, Jianfeng Gao and Mohit Bansal	6895
<i>Cross-Lingual Abstractive Summarization with Limited Parallel Resources</i>	
Yu Bai, Yang Gao and Heyan Huang	6910
<i>Dissecting Generation Modes for Abstractive Summarization Models via Ablation and Attribution</i>	
Jiacheng Xu and Greg Durrett	6925
<i>Learning Prototypical Functions for Physical Artifacts</i>	
Tianyu Jiang and Ellen Riloff	6941
<i>Verb Knowledge Injection for Multilingual Event Processing</i>	
Olga Majewska, Ivan Vulić, Goran Glavaš, Edoardo Maria Ponti and Anna Korhonen	6952
<i>Dynamic Contextualized Word Embeddings</i>	
Valentin Hofmann, Janet Pierrehumbert and Hinrich Schütze	6970
<i>Lexical Semantic Change Discovery</i>	
Sinan Kurtuyigit, Maike Park, Dominik Schlechtweg, Jonas Kuhn and Sabine Schulte im Walde	6985
<i>The R-U-A-Robot Dataset: Helping Avoid Chatbot Deception by Detecting User Questions About Human or Non-Human Identity</i>	
David Gros, Yu Li and Zhou Yu	6999
<i>Using Meta-Knowledge Mined from Identifiers to Improve Intent Recognition in Conversational Systems</i>	
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	7014
<i>Space Efficient Context Encoding for Non-Task-Oriented Dialogue Generation with Graph Attention Transformer</i>	
Fabian Galetzka, Jewgeni Rose, David Schlangen and Jens Lehmann	7028
<i>DialogueCRN: Contextual Reasoning Networks for Emotion Recognition in Conversations</i>	
Dou Hu, Lingwei Wei and Xiaoyong Huai	7042
<i>Cross-replication Reliability - An Empirical Approach to Interpreting Inter-rater Reliability</i>	
Ka Wong, Praveen Paritosh and Lora Aroyo	7053
<i>TIMEDIAL: Temporal Commonsense Reasoning in Dialog</i>	
Lianhui Qin, Aditya Gupta, Shyam Upadhyay, Luheng He, Yejin Choi and Manaal Faruqui . .	7066
<i>RAW-C: Relatedness of Ambiguous Words in Context (A New Lexical Resource for English)</i>	
Sean Trott and Benjamin Bergen	7077
<i>ARBERT & MARBERT: Deep Bidirectional Transformers for Arabic</i>	
Muhammad Abdul-Mageed, AbdelRahim Elmadany and El Moatez Billah Nagoudi	7088
<i>Improving Paraphrase Detection with the Adversarial Paraphrasing Task</i>	
Animesh Nigohjkar and John Licato	7106

<i>ADEPT: An Adjective-Dependent Plausibility Task</i>	
Ali Emami, Ian Porada, Alexandra Olteanu, Kaheer Suleman, Adam Trischler and Jackie Chi Kit Cheung	7117
<i>ReadOnce Transformers: Reusable Representations of Text for Transformers</i>	
Shih-Ting Lin, Ashish Sabharwal and Tushar Khot.....	7129
<i>Conditional Generation of Temporally-ordered Event Sequences</i>	
Shih-Ting Lin, Nathanael Chambers and Greg Durrett.....	7142
<i>Hate Speech Detection Based on Sentiment Knowledge Sharing</i>	
Xianbing Zhou, yang yong, xiaochao fan, Ge Ren, Yunfeng Song, Yufeng Diao, Liang Yang and Hongfei LIN.....	7158
<i>Transition-based Bubble Parsing: Improvements on Coordination Structure Prediction</i>	
Tianze Shi and Lillian Lee.....	7167
<i>SpanNER: Named Entity Re-/Recognition as Span Prediction</i>	
Jinlan Fu, Xuanjing Huang and Pengfei Liu.....	7183
<i>StructFormer: Joint Unsupervised Induction of Dependency and Constituency Structure from Masked Language Modeling</i>	
Yikang Shen, Yi Tay, Che Zheng, Dara Bahri, Donald Metzler and Aaron Courville.....	7196
<i>Language Embeddings for Typology and Cross-lingual Transfer Learning</i>	
Dian Yu, Taiqi He and Kenji Sagae.....	7210
<i>Can Sequence-to-Sequence Models Crack Substitution Ciphers?</i>	
Nada Aldarrab and Jonathan May.....	7226
<i>Beyond Noise: Mitigating the Impact of Fine-grained Semantic Divergences on Neural Machine Translation</i>	
Eleftheria Briakou and Marine Carpuat.....	7236
<i>Discriminative Reranking for Neural Machine Translation</i>	
Ann Lee, Michael Auli and Marc’ Aurelio Ranzato.....	7250
<i>Mind Your Outliers! Investigating the Negative Impact of Outliers on Active Learning for Visual Question Answering</i>	
Siddharth Karamcheti, Ranjay Krishna, Li Fei-Fei and Christopher Manning.....	7265
<i>All That’s ‘Human’ Is Not Gold: Evaluating Human Evaluation of Generated Text</i>	
Elizabeth Clark, Tal August, Sofia Serrano, Nikita Haduong, Suchin Gururangan and Noah A. Smith.....	7282
<i>Scientific Credibility of Machine Translation Research: A Meta-Evaluation of 769 Papers</i>	
Benjamin Marie, Atsushi Fujita and Raphael Rubino.....	7297
<i>Neural Machine Translation with Monolingual Translation Memory</i>	
Deng Cai, Yan Wang, Huayang Li, Wai Lam and Lemao Liu.....	7307
<i>Intrinsic Dimensionality Explains the Effectiveness of Language Model Fine-Tuning</i>	
Armen Aghajanyan, Sonal Gupta and Luke Zettlemoyer.....	7319
<i>UnNatural Language Inference</i>	
Koustuv Sinha, Prasanna Parthasarathi, Joelle Pineau and Adina Williams.....	7329

Including Signed Languages in Natural Language Processing
Kayo Yin, Amit Moryossef, Julie Hochgesang, Yoav Goldberg and Malihe Alikhani 7347

Vocabulary Learning via Optimal Transport for Neural Machine Translation
Jingjing Xu, Hao Zhou, Chun Gan, Zaixiang Zheng and Lei Li 7361

Conference Program

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

08:15–08:35 *Opening Session*

08:40–09:00 *Presidential Address*

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

Session 1A: Computational Social Science and Cultural Analytics 1

10:00–10:10 *Investigating label suggestions for opinion mining in German Covid-19 social media*

Tilman Beck, Ji-Ung Lee, Christina Viehmann, Marcus Maurer, Oliver Quiring and Iryna Gurevych

10:10–10:20 *How Did This Get Funded?! Automatically Identifying Quirky Scientific Achievements*

Chen Shani, Nadav Borenstein and Dafna Shahaf

10:20–10:30 *Engage the Public: Poll Question Generation for Social Media Posts*

Zexin Lu, Keyang Ding, Yuji Zhang, Jing Li, Baolin Peng and Lemao Liu

10:30–10:40 *HateCheck: Functional Tests for Hate Speech Detection Models*

Paul Röttger, Bertie Vidgen, Dong Nguyen, Zeerak Waseem, Helen Margetts and Janet Pierrehumbert

10:40–10:50 *Unified Dual-view Cognitive Model for Interpretable Claim Verification*

Lianwei Wu, Yuan Rao, Yuqian Lan, Ling Sun and Zhaoyin Qi

10:50–10:57 *Catchphrase: Automatic Detection of Cultural References*

Nir Sweed and Dafna Shahaf

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

Session 1B: Language Generation 1

- 10:00–10:10 *DeepRapper: Neural Rap Generation with Rhyme and Rhythm Modeling*
Lanqing Xue, Kaitao Song, Duocai Wu, Xu Tan, Nevin L. Zhang, Tao Qin, Wei-Qiang Zhang and Tie-Yan Liu
- 10:10–10:20 *PENS: A Dataset and Generic Framework for Personalized News Headline Generation*
Xiang Ao, Xiting Wang, Ling Luo, Ying Qiao, Qing He and Xing Xie
- 10:20–10:30 *Enhancing Content Preservation in Text Style Transfer Using Reverse Attention and Conditional Layer Normalization*
Dongkyu Lee, Zhiliang Tian, Lanqing Xue and Nevin L. Zhang
- 10:30–10:40 *Mention Flags (MF): Constraining Transformer-based Text Generators*
Yufei Wang, Ian Wood, Stephen Wan, Mark Dras and Mark Johnson
- 10:40–10:50 *Generalising Multilingual Concept-to-Text NLG with Language Agnostic Delexicalisation*
Giulio Zhou and Gerasimos Lampouras
- 10:50–10:57 *On Training Instance Selection for Few-Shot Neural Text Generation*
Ernie Chang, Xiaoyu Shen, Hui-Syuan Yeh and Vera Demberg

Session 1C: Dialog and Interactive Systems 1

- 10:00–10:10 *Conversations Are Not Flat: Modeling the Dynamic Information Flow across Dialogue Utterances*
Zekang Li, Jinchao Zhang, Zhengcong Fei, Yang Feng and Jie Zhou
- 10:10–10:20 *Dual Slot Selector via Local Reliability Verification for Dialogue State Tracking*
Jinyu Guo, Kai Shuang, Jijie Li and Zihan Wang
- 10:20–10:30 *Transferable Dialogue Systems and User Simulators*
Bo-Hsiang Tseng, Yinpei Dai, Florian Kreyssig and Bill Byrne
- 10:30–10:40 *BoB: BERT Over BERT for Training Persona-based Dialogue Models from Limited Personalized Data*
Haoyu Song, Yan Wang, Kaiyan Zhang, Wei-Nan Zhang and Ting Liu

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

- 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, Qihui 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, Pdraig Cunningham, Yue Zhang, Barry Smyth and Ruihai Dong
- 11:10–11:20 *Bridge-Based Active Domain Adaptation for Aspect Term Extraction*
Zhuang Chen and Tiejun 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

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

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

- 11:00–11:10 *Introducing Orthogonal Constraint in Structural Probes*
Tomasz Limisiewicz and David Mareček
- 11:10–11:20 *Hidden Killer: Invisible Textual Backdoor Attacks with Syntactic Trigger*
Fanchao Qi, Mukai Li, Yangyi Chen, Zhengyan Zhang, Zhiyuan Liu, Yasheng Wang and Maosong Sun
- 11:20–11:30 *Examining the Inductive Bias of Neural Language Models with Artificial Languages*
Jennifer C. White and Ryan Cotterell
- 11:30–11:40 *Explaining Contextualization in Language Models using Visual Analytics*
Rita Sevastjanova, Aikaterini-Lida Kalouli, Christin Beck, Hanna Schäfer and Menatallah El-Assady
- 11:40–11:50 *Improving the Faithfulness of Attention-based Explanations with Task-specific Information for Text Classification*
George Chrysostomou and Nikolaos Aletras
- 11:50–11:57 *Attention Flows are Shapley Value Explanations*
Kawin Ethayarajh and Dan Jurafsky

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

- 11:00–11:10 *Generating Landmark Navigation Instructions from Maps as a Graph-to-Text Problem*
Raphael Schumann and Stefan Riezler
- 11:10–11:20 *E2E-VLP: End-to-End Vision-Language Pre-training Enhanced by Visual Learning*
Haiyang Xu, Ming Yan, Chenliang Li, Bin Bi, Songfang Huang, Wenming Xiao and Fei Huang
- 11:20–11:30 *Learning Relation Alignment for Calibrated Cross-modal Retrieval*
Shuhuai Ren, Junyang Lin, Guangxiang Zhao, Rui Men, An Yang, Jingren Zhou, Xu Sun and Hongxia Yang
- 11:30–11:40 *KM-BART: Knowledge Enhanced Multimodal BART for Visual Commonsense Generation*
Yiran Xing, Zai Shi, Zhao Meng, Gerhard Lakemeyer, Yunpu Ma and Roger Wattenhofer

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

- 11:40–11:47 *Video Paragraph Captioning as a Text Summarization Task*
Hui Liu and Xiaojun Wan
- 11:47–11:54 *Are VQA Systems RAD? Measuring Robustness to Augmented Data with Focused Interventions*
Daniel Rosenberg, Itai Gat, Amir Feder and Roi Reichart

Session 2E: Machine Learning for NLP 1

- 11:00–11:10 *Cascaded Head-colliding Attention*
Lin Zheng, Zhiyong Wu and Lingpeng Kong
- 11:10–11:20 *Structural Knowledge Distillation: Tractably Distilling Information for Structured Predictor*
Xinyu Wang, Yong Jiang, Zhaohui Yan, Zixia Jia, Nguyen Bach, Tao Wang, Zhongqiang Huang, Fei Huang and Kewei Tu
- 11:20–11:30 *Parameter-efficient Multi-task Fine-tuning for Transformers via Shared Hypernetworks*
Rabeeh Karimi Mahabadi, Sebastian Ruder, Mostafa Dehghani and James Henderson
- 11:30–11:40 *COSY: COUNTERFACTUAL SYNTAX FOR CROSS-LINGUAL UNDERSTANDING*
SICHENG YU, Hao Zhang, Yulei Niu, Qianru Sun and Jing Jiang
- 11:40–11:50 *OoMMix: Out-of-manifold Regularization in Contextual Embedding Space for Text Classification*
Seonghyeon Lee, Dongha Lee and Hwanjo Yu
- 11:50–11:57 *How Helpful is Inverse Reinforcement Learning for Table-to-Text Generation?*
Sayan Ghosh, Zheng Qi, Snigdha Chaturvedi and Shashank Srivastava

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

Session 3A: Computational Social Science and Cultural Analytics 2

- 14:00–14:10 *Understanding and Countering Stereotypes: A Computational Approach to the Stereotype Content Model*
Kathleen C. Fraser, Isar Nejadgholi and Svetlana Kiritchenko
- 14:10–14:20 *Structurizing Misinformation Stories via Rationalizing Fact-Checks*
Shan Jiang and Christo Wilson
- 14:20–14:30 *Modeling Language Usage and Listener Engagement in Podcasts*
Sravana Reddy, Mariya Lazarova, Yongze Yu and Rosie Jones
- 14:30–14:40 *Breaking Down the Invisible Wall of Informal Fallacies in Online Discussions*
Saumya Sahai, Oana Balalau and Roxana Horincar
- 14:40–14:50 *SocAoG: Incremental Graph Parsing for Social Relation Inference in Dialogues*
Liang Qiu, Yuan Liang, Yizhou Zhao, Pan Lu, Baolin Peng, Zhou Yu, Ying Nian Wu and Song-Chun Zhu
- 14:50–14:57 *Automatic Fake News Detection: Are Models Learning to Reason?*
Casper Hansen, Christian Hansen and Lucas Chaves Lima

Session 3B: Dialog and Interactive Systems 2

- 14:00–14:10 *TicketTalk: Toward human-level performance with end-to-end, transaction-based dialog systems*
Bill Byrne, Karthik Krishnamoorthi, Saravanan Ganesh and Mihir Kale
- 14:10–14:20 *Improving Dialog Systems for Negotiation with Personality Modeling*
Runzhe Yang, Jingxiao Chen and Karthik Narasimhan
- 14:20–14:30 *Learning from Perturbations: Diverse and Informative Dialogue Generation with Inverse Adversarial Training*
Wangchunshu Zhou, Qifei LI and Chenle Li
- 14:30–14:40 *Increasing Faithfulness in Knowledge-Grounded Dialogue with Controllable Features*
Hannah Rashkin, David Reitter, Gaurav Singh Tomar and Dipanjan Das

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

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 Re-Ranking Network*
Justin Lovelace, Denis Newman-Griffis, Shikhar Vashishth, Jill Fain Lehman and Carolyn Rosé
- 15:00–17:00 *A DQN-based Approach to Finding Precise Evidences for Fact Verification*
Hai Wan, Haicheng Chen, Jianfeng Du, Weilin Luo and Rongzhen Ye

Poster 1H: Machine Learning for NLP

- 15:00–17:00 *The Art of Abstinence: 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 1I: Interpretability and Analysis of Models for NLP

- 15:00–17:00 *When Do You Need Billions of Words of Pretraining Data?*
Yian Zhang, Alex Warstadt, Xiaocheng Li and Samuel R. Bowman
- 15:00–17:00 *Analyzing the Source and Target Contributions to Predictions in Neural Machine Translation*
Elena Voita, Rico Sennrich and Ivan Titov
- 15:00–17:00 *Comparing Test Sets with Item Response Theory*
Clara Vania, Phu Mon Htut, William Huang, Dhara Mungra, Richard Yuanzhe Pang, Jason Phang, Haokun Liu, Kyunghyun Cho and Samuel R. Bowman
- 15:00–17:00 *Uncovering Constraint-Based Behavior in Neural Models via Targeted Fine-Tuning*
Forrest Davis and Marten van Schijndel
- 15:00–17:00 *More Identifiable yet Equally Performant Transformers for Text Classification*
Rishabh Bhardwaj, Navonil Majumder, Soujanya Poria and Eduard Hovy

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

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

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, Alfio Gliozzo and Alexander Gray
- 15:00–17:00 *A Gradually Soft Multi-Task and Data-Augmented Approach to Medical Question Understanding*
Khalil Mrini, Franck Dernoncourt, Seunghyun Yoon, Trung Bui, Walter Chang, Emilia Farcas and Ndapa Nakashole
- 15:00–17:00 *Neural Retrieval for Question Answering with Cross-Attention Supervised Data Augmentation*
Yinfei Yang, Ning Jin, Kuo Lin, Mandy Guo and Daniel Cer

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

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

Poster 1U: Information Extraction

- 15:00–17:00 *Leveraging Type Descriptions for Zero-shot Named Entity Recognition and Classification*
Rami Aly, Andreas Vlachos and Ryan McDonald
- 15:00–17:00 *MECT: Multi-Metadata Embedding based Cross-Transformer for Chinese Named Entity Recognition*
Shuang Wu, Xiaoning Song and Zhenhua Feng
- 15:00–17:00 *MOLEMAN: Mention-Only Linking of Entities with a Mention Annotation Network*
Nicholas FitzGerald, Dan Bikel, Jan Botha, Daniel Gillick, Tom Kwiatkowski and Andrew McCallum
- 15:00–17:00 *Factuality Assessment as Modal Dependency Parsing*
Jiarui Yao, Haoling Qiu, Jin Zhao, Bonan Min and Nianwen Xue

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

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

- 15:00–17:00 *Directed Acyclic Graph Network for Conversational Emotion Recognition*
Weizhou Shen, Siyue Wu, Yunyi Yang and Xiaojun Quan
- 15:00–17:00 *Improving Formality Style Transfer with Context-Aware Rule Injection*
Zonghai Yao and hong yu
- 15:00–17:00 *Topic-Driven and Knowledge-Aware Transformer for Dialogue Emotion Detection*
Lixing Zhu, Gabriele Pergola, Lin Gui, Deyu Zhou and Yulan He
- 15:00–17:00 *Syntopical Graphs for Computational Argumentation Tasks*
Joe Barrow, Rajiv Jain, Nedim Lipka, Franck Dernoncourt, Vlad Morariu, Varun Manjunatha, Douglas Oard, Philip Resnik and Henning Wachsmuth
- 15:00–17:00 *Stance Detection in COVID-19 Tweets*
Kyle Glandt, Sarthak Khanal, Yingjie Li, Doina Caragea and Cornelia Caragea
- 15:00–17:00 *eMLM: A New Pre-training Objective for Emotion Related Tasks*
Tiberiu Sosea and Cornelia Caragea
- 15:00–17:00 *Topic-Aware Evidence Reasoning and Stance-Aware Aggregation for Fact Verification*
Jiasheng Si, Deyu Zhou, Tongzhe Li, Xingyu Shi and Yulan He
- 17:00—18:00** *Keynote 2. Alejandrina Cristia: Learning and Processing Language from Wearables: Opportunities and Challenges*

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
- 23:20–23:30 *A Survey of Code-switching: Linguistic and Social Perspectives for Language Technologies*
A. Seza Dođruöz, Sunayana Sitaram, Barbara E. Bullock and Almedia Jacqueline Toribio
- 23:30–23:40 *Learning from the Worst: Dynamically Generated Datasets to Improve Online Hate Detection*
Bertie Vidgen, Tristan Thrush, Zeerak Waseem and Douwe Kiela
- 23:40–23:50 *InfoSurgeon: Cross-Media Fine-grained Information Consistency Checking for Fake News Detection*
Yi Fung, Christopher Thomas, Revanth Gangi Reddy, Sandeep Polisetty, Heng Ji, Shih-Fu Chang, Kathleen McKeown, Mohit Bansal and Avi Sil
- 23:50–23:57 *On Positivity Bias in Negative Reviews*
Madhusudhan Aithal and Chenhao Tan

Session 4B: Dialog and Interactive Systems 3

- 23:00–23:10 *I like fish, especially dolphins: Addressing Contradictions in Dialogue Modeling*
Yixin Nie, Mary Williamson, Mohit Bansal, Douwe Kiela and Jason Weston
- 23:10–23:20 *A Sequence-to-Sequence Approach to Dialogue State Tracking*
Yue Feng, Yang Wang and Hang Li
- 23:20–23:30 *Discovering Dialog Structure Graph for Coherent Dialog Generation*
Jun Xu, Zeyang Lei, Haifeng Wang, Zheng-Yu Niu, Hua Wu and Wanxiang Che
- 23:30–23:40 *Dialogue Response Selection with Hierarchical Curriculum Learning*
Yixuan Su, Deng Cai, Qingyu Zhou, Zibo Lin, Simon Baker, Yunbo Cao, Shuming Shi, Nigel Collier and Yan Wang

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

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

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

Session 4C: Information Extraction 3

23:00–23:10 *A Systematic Investigation of KB-Text Embedding Alignment at Scale*
Vardaan Pahuja, Yu Gu, Wenhui 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, Elicor 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
- 23:10–23:20 *Causal Analysis of Syntactic Agreement Mechanisms in Neural Language Models*
Matthew Finlayson, Aaron Mueller, Sebastian Gehrmann, Stuart Shieber, Tal Linzen and Yonatan Belinkov
- 23:20–23:30 *Bird’s Eye: Probing for Linguistic Graph Structures with a Simple Information-Theoretic Approach*
Yifan Hou and Mrinmaya Sachan
- 23:30–23:40 *Knowledgeable or Educated Guess? Revisiting Language Models as Knowledge Bases*
Boxi Cao, Hongyu Lin, Xianpei Han, Le Sun, Lingyong Yan, Meng Liao, Tong Xue and Jin Xu
- 23:40–23:50 *Poisoning Knowledge Graph Embeddings via Relation Inference Patterns*
Peru Bhardwaj, John Kelleher, Luca Costabello and Declan O’Sullivan
- 23:50–23:57 *Using Adversarial Attacks to Reveal the Statistical Bias in Machine Reading Comprehension Models*
Jieyu Lin, Jiajie Zou and Nai Ding

Session 4E: Ethics in NLP 1

- 23:00–23:10 *Bad Seeds: Evaluating Lexical Methods for Bias Measurement*
Maria Antoniak and David Mimno
- 23:10–23:20 *A Survey of Race, Racism, and Anti-Racism in NLP*
Anjalie Field, Su Lin Blodgett, Zeerak Waseem and Yulia Tsvetkov
- 23:20–23:30 *Intrinsic Bias Metrics Do Not Correlate with Application Bias*
Seraphina Goldfarb-Tarrant, Rebecca Marchant, Ricardo Muñoz Sánchez, Mugdha Pandya and Adam Lopez
- 23:30–23:40 *RedditBias: A Real-World Resource for Bias Evaluation and Debiasing of Conversational Language Models*
Soumya Barikeri, Anne Lauscher, Ivan Vulić and Goran Glavaš

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

- 23:40–23:47 *Quantifying and Avoiding Unfair Qualification Labour in Crowdsourcing*
Jonathan K. Kummerfeld
- 23:47–23:54 *Men Are Elected, Women Are Married: Events Gender Bias on Wikipedia*
Jiao Sun and Nanyun Peng

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

Session 5A: Machine Translation and Multilinguality 3

- 00:00–00:10 *Contributions of Transformer Attention Heads in Multi- and Cross-lingual Tasks*
Weicheng Ma, Kai Zhang, Renze Lou, Lili Wang and Soroush Vosoughi
- 00:10–00:20 *Crafting Adversarial Examples for Neural Machine Translation*
Xinze Zhang, Junzhe Zhang, Zhenhua Chen and Kun He
- 00:20–00:30 *UXLA: A Robust Unsupervised Data Augmentation Framework for Zero-Resource Cross-Lingual NLP*
M Saiful Bari, Tasnim Mohiuddin and Shafiq Joty
- 00:30–00:40 *Glancing Transformer for Non-Autoregressive Neural Machine Translation*
Lihua Qian, Hao Zhou, Yu Bao, Mingxuan Wang, Lin Qiu, Weinan Zhang, Yong Yu and Lei Li
- 00:40–00:47 *Modeling Task-Aware MIMO Cardinality for Efficient Multilingual Neural Machine Translation*
Hongfei Xu, Qiuhui Liu, Josef van Genabith and Deyi Xiong
- 00:47–00:54 *Adaptive Nearest Neighbor Machine Translation*
Xin Zheng, Zhirui Zhang, Junliang Guo, Shujian Huang, Boxing Chen, Weihua Luo and Jiajun CHEN

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

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

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

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

Session 5D: NLP Applications 1 and Ethics

00:00–00:10 *COVID-Fact: Fact Extraction and Verification of Real-World Claims on COVID-19 Pandemic*

Arkadiy Saakyan, Tuhin Chakrabarty and Smaranda Muresan

00:10–00:20 *Explaining Relationships Between Scientific Documents*

Kelvin Luu, Xinyi Wu, Rik Koncel-Kedziorski, Kyle Lo, Isabel Cachola and Noah A. Smith

00:20–00:30 *IrEne: Interpretable Energy Prediction for Transformers*

Qingqing Cao, Yash Kumar Lal, Harsh Trivedi, Aruna Balasubramanian and Niranjan Balasubramanian

00:30–00:40 *Mitigating Bias in Session-based Cyberbullying Detection: A Non-Compromising Approach*

Lu Cheng, Ahmadreza Mosallanezhad, Yasin Silva, Deborah Hall and Huan Liu

00:40–00:50 *PlotCoder: Hierarchical Decoding for Synthesizing Visualization Code in Programmatic Context*

Xinyun Chen, Linyuan Gong, Alvin Cheung and Dawn Song

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

Anna Rogers

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

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, BOSHEG DING, Liying Cheng, Jiawei Low, Lidong Bing and Luo Si
- 01:20–01:30 *Data Augmentation for Text Generation Without Any Augmented Data*
Wei Bi, Huayang Li and Jiacheng Huang
- 01:30–01:40 *KEPLER: A Unified Model for Knowledge Embedding and Pre-trained Language Representation*
Xiaozhi Wang, Tianyu Gao, Zhaocheng Zhu, Zhengyan Zhang, Zhiyuan Liu, Juanzi Li and Jian Tang
- 01:40–01:50 *Integrating Semantics and Neighborhood Information with Graph-Driven Generative Models for Document Retrieval*
Zijing Ou, Qinliang Su, Jianxing Yu, Bang Liu, Jingwen Wang, Ruihui Zhao, Changyou Chen and Yefeng Zheng
- 01:50–01:57 *Measuring and Improving BERT's Mathematical Abilities by Predicting the Order of Reasoning.*
Piotr Piękos, Mateusz Malinowski and Henryk Michalewski

Session 6B: Resources and Evaluation 1

- 01:00–01:10 *SMURF: SeMantic and linguistic UndeRstanding Fusion for Caption Evaluation via Typicality Analysis*
Joshua Feinglass and Yezhou Yang
- 01:10–01:20 *KaggleDBQA: Realistic Evaluation of Text-to-SQL Parsers*
Chia-Hsuan Lee, Oleksandr Polozov and Matthew Richardson
- 01:20–01:30 *QASR: QCRI Aljazeera Speech Resource A Large Scale Annotated Arabic Speech Corpus*
Hamdy Mubarak, Amir Hussein, Shammur Absar Chowdhury and Ahmed Ali
- 01:30–01:40 *An Empirical Study on Hyperparameter Optimization for Fine-Tuning Pre-trained Language Models*
Xueqing Liu and Chi Wang

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*
Zhaofeng Wu, Hao Peng and Noah Smith

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

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

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

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

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

Session 7E: Resources and Evaluation 2

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

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

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

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

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

08:50–08:57 *AlignNarr: 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 Kijirikul 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

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

Session 8D: NLP Applications 2

- 09:00–09:10 *Unsupervised Extractive Summarization-Based Representations for Accurate and Explainable Collaborative Filtering*
Reinald Adrian Pugoy and Hung-Yu Kao
- 09:10–09:20 *PLOME: Pre-training with Misspelled Knowledge for Chinese Spelling Correction*
Shulin Liu, Tao Yang, Tianchi Yue, Feng Zhang and Di Wang
- 09:20–09:30 *Competence-based Multimodal Curriculum Learning for Medical Report Generation*
Fenglin Liu, Shen Ge and Xian Wu
- 09:30–09:40 *Learning Syntactic Dense Embedding with Correlation Graph for Automatic Readability Assessment*
Xinying Qiu, Yuan Chen, Hanwu Chen, Jian-Yun Nie, Yuming Shen and Dawei Lu
- 09:40–09:50 *Meta-KD: A Meta Knowledge Distillation Framework for Language Model Compression across Domains*
Haojie Pan, Chengyu Wang, Minghui Qiu, Yichang Zhang, Yaliang Li and jun huang
- 09:50–09:57 *Exploration and Exploitation: Two Ways to Improve Chinese Spelling Correction Models*
Chong Li, Cenyuan Zhang, Xiaoqing Zheng and Xuanjing Huang

Session 8E: Question Answering 1

- 09:00–09:10 *A Semantic-based Method for Unsupervised Commonsense Question Answering*
Yilin Niu, Fei Huang, Jiaming Liang, Wenkai Chen, Xiaoyan Zhu and Minlie Huang
- 09:10–09:20 *Explanations for CommonsenseQA: New Dataset and Models*
Shourya Aggarwal, Divyanshu Mandowara, Vishwajeet Agrawal, Dinesh Khandelwal, Parag Singla and Dinesh Garg
- 09:20–09:30 *Few-Shot Question Answering by Pretraining Span Selection*
Ori Ram, Yuval Kirstain, Jonathan Berant, Amir Globerson and Omer Levy
- 09:30–09:40 *UnitedQA: A Hybrid Approach for Open Domain Question Answering*
Hao Cheng, Yelong Shen, Xiaodong Liu, Pengcheng He, Weizhu Chen and Jianfeng Gao

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

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

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

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

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

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

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 Zhiyuan Liu
- 10:20–10:30 *MultiMET: A Multimodal Dataset for Metaphor Understanding*
Dongyu Zhang, Minghao Zhang, Heting Zhang, Liang Yang and Hongfei LIN
- 10:30–10:40 *Human-in-the-Loop for Data Collection: a Multi-Target Counter Narrative Dataset to Fight Online Hate Speech*
Margherita Fanton, Helena Bonaldi, Serra Sinem Tekiroğlu and Marco Guerini
- 10:40–10:47 *OntoGUM: Evaluating Contextualized SOTA Coreference Resolution on 12 More Genres*
Yilun Zhu, Sameer Pradhan and Amir Zeldes

Session 9C: Question Answering 2

- 10:00–10:10 *Can Generative Pre-trained Language Models Serve As Knowledge Bases for Closed-book QA?*
Cunxiang Wang, Pai Liu and Yue Zhang
- 10:10–10:20 *Joint Models for Answer Verification in Question Answering Systems*
Zeyu Zhang, Thuy Vu and Alessandro Moschitti
- 10:20–10:30 *Answering Ambiguous Questions through Generative Evidence Fusion and Round-Trip Prediction*
Yifan Gao, Henghui Zhu, Patrick Ng, Cicero Nogueira dos Santos, Zhiguo Wang, Feng Nan, Dejiao Zhang, Ramesh Nallapati, Andrew O. Arnold and Bing Xiang
- 10:30–10:40 *TAT-QA: A Question Answering Benchmark on a Hybrid of Tabular and Textual Content in Finance*
Fengbin Zhu, Wenqiang Lei, Youcheng Huang, Chao Wang, Shuo Zhang, Jiancheng Lv, Fuli Feng and Tat-Seng Chua
- 10:40–10:50 *Modeling Transitions of Focal Entities for Conversational Knowledge Base Question Answering*
Yunshi Lan and Jing Jiang

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

Session 10A: Machine Translation and Multilinguality 6

- 11:00–11:10 *Consistency Regularization for Cross-Lingual Fine-Tuning*
Bo Zheng, Li Dong, Shaohan Huang, Wenhui Wang, Zewen Chi, Saksham Singhal, Wanxiang Che, Ting Liu, Xia Song and Furu Wei
- 11:10–11:20 *Improving Pretrained Cross-Lingual Language Models via Self-Labeled Word Alignment*
Zewen Chi, Li Dong, Bo Zheng, Shaohan Huang, Xian-Ling Mao, Heyan Huang and Furu Wei
- 11:20–11:30 *Rejuvenating Low-Frequency Words: Making the Most of Parallel Data in Non-Autoregressive Translation*
Liang Ding, Longyue Wang, Xuebo Liu, Derek F. Wong, Dacheng Tao and Zhaopeng Tu
- 11:30–11:40 *G-Transformer for Document-Level Machine Translation*
Guangsheng Bao, Yue Zhang, Zhiyang Teng, Boxing Chen and Weihua Luo

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

11:40–11:50 *Prevent the Language Model from being Overconfident in Neural Machine Translation*

Mengqi Miao, Fandong Meng, Yijin Liu, Xiao-Hua Zhou and Jie Zhou

11:50–11:57 *Bilingual Mutual Information Based Adaptive Training for Neural Machine Translation*

Yangyifan Xu, Yijin Liu, Fandong Meng, Jiajun Zhang, Jinan Xu and Jie Zhou

Session 10B: Dialog and Interactive Systems 5

11:00–11:10 *Towards Emotional Support Dialog Systems*

Siyang Liu, Chujie Zheng, Orianna Demasi, Sahand Sabour, Yu Li, Zhou Yu, Yong Jiang and Minlie Huang

11:10–11:20 *Novel Slot Detection: A Benchmark for Discovering Unknown Slot Types in the Task-Oriented Dialogue System*

Yanan Wu, Zhiyuan Zeng, Keqing He, Hong Xu, Yuanmeng Yan, Huixing Jiang and Weiran Xu

11:20–11:30 *GTM: A Generative Triple-wise Model for Conversational Question Generation*

Lei Shen, Fandong Meng, Jinchao Zhang, Yang Feng and Jie Zhou

11:30–11:40 *Diversifying Dialog Generation via Adaptive Label Smoothing*

Yida Wang, Yinhe Zheng, Yong Jiang and Minlie Huang

11:40–11:50 *Out-of-Scope Intent Detection with Self-Supervision and Discriminative Training*

Li-Ming Zhan, Haowen Liang, Bo LIU, Lu Fan, Xiao-Ming Wu and Albert Y.S. Lam

11:50–11:57 *Continual Learning for Task-oriented Dialogue System with Iterative Network Pruning, Expanding and Masking*

Binzong Geng, Fajie Yuan, Qiancheng Xu, Ying Shen, Ruifeng Xu and Min Yang

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*
Hyunji Hayley Park, Katherine J. Zhang, Coleman Haley, Kenneth Steimel, Han Liu and Lane Schwartz
- 11:30–11:37 *Improving Arabic Diacritization with Regularized Decoding and Adversarial Training*
Han Qin, Guimin Chen, Yuanhe Tian and Yan Song

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

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

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

Session 10E: Semantics: Lexical Semantics 1

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

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

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

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

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

11:44–11:51 *A Cluster-based Approach for Improving Isotropy in Contextual Embedding Space*
Sara 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*

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

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 Fernández 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-ID: Fast One-Dimensional Hierarchical Attention for Sequences*
Zhenhai Zhu and Radu Soricut
- 17:00–17:10 *Making Pre-trained Language Models Better Few-shot Learners*
Tianyu Gao, Adam Fisch and Danqi Chen
- 17:10–17:20 *A Sweet Rabbit Hole by DARCY: Using Honeypots to Detect Universal Trigger’s Adversarial Attacks*
Thai Le, Noseong Park and Dongwon Lee
- 17:20–17:27 *Don’t Let Discourse Confine Your Model: Sequence Perturbations for Improved Event Language Models*
Mahnaz Koupaee, Greg Durrett, Nathanael Chambers and Niranjan Balasubramanian

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

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

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

Session 12A: Machine Translation and Multilinguality 7

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

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

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

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

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

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

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

Session 12B: Resources and Evaluation 4

- 23:00–23:10 *Handling Extreme Class Imbalance in Technical Logbook Datasets*
Farhad Akhbardeh, Cecilia Ovesdotter Alm, Marcos Zampieri and Travis Desell
- 23:10–23:20 *ILDC for CJPE: Indian Legal Documents Corpus for Court Judgment Prediction and Explanation*
Vijit Malik, Rishabh Sanjay, Shubham Kumar Nigam, Kripabandhu Ghosh, Shouvik Kumar Guha, Arnab Bhattacharya and Ashutosh Modi
- 23:20–23:30 *Supporting Cognitive and Emotional Empathic Writing of Students*
Thiemo Wambsganss, Christina Niklaus, Matthias Söllner, Siegfried Handschuh and Jan Marco Leimeister
- 23:30–23:40 *Context-aware Adversarial Training for Name Regularity Bias in Named Entity Recognition*
Abbas Ghaddar, Philippe Langlais, Ahmad Rashid and Mehdi Rezagholizadeh
- 23:40–23:50 *SummEval: Re-evaluating Summarization Evaluation*
Alex Fabbri, Wojciech Kryscinski, Bryan McCann, Caiming Xiong and Richard Socher
- 23:50–24:00 *Towards Question-Answering as an Automatic Metric for Evaluating the Content Quality of a Summary*
Daniel Deutsch, Tania Bedrax-Weiss and Dan Roth

Session 12C: Question Answering 3

- 23:00–23:10 *Dual Reader-Parser on Hybrid Textual and Tabular Evidence for Open Domain Question Answering*
Alexander Hanbo Li, Patrick Ng, Peng Xu, Henghui Zhu, Zhiguo Wang and Bing Xiang
- 23:10–23:20 *Generation-Augmented Retrieval for Open-Domain Question Answering*
Yuning Mao, Pengcheng He, Xiaodong Liu, Yelong Shen, Jianfeng Gao, Jiawei Han and Weizhu Chen
- 23:20–23:30 *Check It Again: Progressive Visual Question Answering via Visual Entailment*
Qingyi Si, Zheng Lin, Ming yu Zheng, Peng Fu and Weiping Wang
- 23:30–23:40 *A Mutual Information Maximization Approach for the Spurious Solution Problem in Weakly Supervised Question Answering*
Zhihong Shao, Lifeng Shang, Qun Liu and Minlie Huang

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 Mengers, Gerek 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

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

0:00–2:00 *A Pre-training Strategy for Zero-Resource Response Selection in Knowledge-Grounded Conversations*

Chongyang Tao, Changyu Chen, Jiazhan Feng, Ji-Rong Wen and Rui Yan

0:00–2:00 *SOLOIST: Building Task Bots at Scale with Transfer Learning and Machine Teaching*

Baolin Peng, Chunyuan Li, Jinchao Li, Shahin Shayandeh, Lars Liden and Jianfeng Gao

Poster 2I: Information Retrieval and Text Mining

0:00–2:00 *Dependency-driven Relation Extraction with Attentive Graph Convolutional Networks*

Yuanhe Tian, Guimin Chen, Yan Song and Xiang Wan

0:00–2:00 *Evaluating Entity Disambiguation and the Role of Popularity in Retrieval-Based NLP*

Anthony Chen, Pallavi Gudipati, Shayne Longpre, Xiao Ling and Sameer Singh

Poster 2J: Resources and Evaluation

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

David Schlangen

0:00–2:00 *Evaluation Examples are not Equally Informative: How should that change NLP Leaderboards?*

Pedro Rodriguez, Joe Barrow, Alexander Miserlis Hoyle, John P. Lalor, Robin Jia and Jordan Boyd-Graber

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

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

Poster 2S: Information Extraction

- 0:00–2:00 *How Knowledge Graph and Attention Help? A Qualitative Analysis into Bag-level Relation Extraction*
Zikun Hu, Yixin Cao, Lifu Huang and Tat-Seng Chua
- 0:00–2:00 *Trigger is Not Sufficient: Exploiting Frame-aware Knowledge for Implicit Event Argument Extraction*
Kaiwen Wei, Xian Sun, Zequn Zhang, Jingyuan Zhang, Guo Zhi and li jin
- 0:00–2:00 *Element Intervention for Open Relation Extraction*
Fangchao Liu, Lingyong Yan, Hongyu Lin, Xianpei Han and Le Sun
- 0:00–2:00 *Explicitly Capturing Relations between Entity Mentions via Graph Neural Networks for Domain-specific Named Entity Recognition*
Pei Chen, Haibo Ding, Jun Araki and Ruihong Huang
- 0:00–2:00 *AdaTag: Multi-Attribute Value Extraction from Product Profiles with Adaptive Decoding*
Jun Yan, Nasser Zalmout, Yan Liang, 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

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

08:40–08:50 *WARP: Word-level Adversarial ReProgramming*
Karen Hambardzumyan, Hrant Khachatryan 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, Xiubo Geng, Jian Pei, Guodong Long and Daxin Jiang

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

- 9:00–11:00 *From Paraphrasing to Semantic Parsing: Unsupervised Semantic Parsing via Synchronous Semantic Decoding*
Shan Wu, Bo Chen, Chunlei Xin, Xianpei Han, Le Sun, Weipeng Zhang, Jiansong Chen, Fan Yang and Xunliang Cai
- 9:00–11:00 *Pre-training Universal Language Representation*
Yian Li and Hai Zhao
- 9:00–11:00 *Structural Pre-training for Dialogue Comprehension*
Zhuosheng Zhang and Hai Zhao
- 9:00–11:00 *AutoTinyBERT: Automatic Hyper-parameter Optimization for Efficient Pre-trained Language Models*
Yichun Yin, Cheng Chen, Lifeng Shang, Xin Jiang, Xiao Chen and Qun Liu
- 9:00–11:00 *Data Augmentation with Adversarial Training for Cross-Lingual NLI*
Xin Dong, Yaxin Zhu, Zuohui Fu, Dongkuan Xu and Gerard de Melo
- 9:00–11:00 *Input Representations for Parsing Discourse Representation Structures: Comparing English with Chinese*
Chunliu Wang, Rik van Noord, Arianna Bisazza and Johan Bos
- 9:00–11:00 *Code Generation from Natural Language with Less Prior Knowledge and More Monolingual Data*
Sajad Norouzi, Keyi Tang and Yanshuai Cao
- 9:00–11:00 *Bootstrapped Unsupervised Sentence Representation Learning*
Yan Zhang, Ruidan He, ZUOZHU LIU, Lidong Bing and Haizhou Li
- 9:00–11:00 *Learning Event Graph Knowledge for Abductive Reasoning*
Li Du, Xiao Ding, Ting Liu and Bing Qin
- 9:00–11:00 *Issues with Entailment-based Zero-shot Text Classification*
Tingting Ma, Jin-Ge Yao, Chin-Yew Lin and Tiejun Zhao
- 9:00–11:00 *Neural-Symbolic Commonsense Reasoner with Relation Predictors*
Farhad Moghimifar, Lizhen Qu, Terry Yue Zhuo, Gholamreza Haffari and Mahsa Baktashmotlagh

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 Vulić, Edoardo Maria Ponti, Anna Korhonen and Goran Glavaš
- 9:00–11:00 *Semantic Frame Induction using Masked Word Embeddings and Two-Step Clustering*
Kosuke Yamada, Ryohei Sasano and Koichi Takeda
- 9:00–11:00 *Multi-SimLex: A Large-Scale Evaluation of Multilingual and Cross-Lingual Lexical Semantic Similarity*
Ivan Vulić, Simon Baker, Edoardo Maria Ponti, Ulla Petti, Ira Leviant, Kelly Wing, Olga Majewska, Eden Bar, Matt Malone, Thierry Poibeau, Roi Reichart and Anna Korhonen

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

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, Chaghan 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*
Zenao 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

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

Poster 3G: Machine Learning for NLP

- 9:00–11:00 *Defense against Synonym Substitution-based Adversarial Attacks via Dirichlet Neighborhood Ensemble*
Yi Zhou, Xiaoqing Zheng, Cho-Jui Hsieh, Kai-Wei Chang and Xuanjing Huang
- 9:00–11:00 *Shortformer: Better Language Modeling using Shorter Inputs*
Ofir Press, Noah A. Smith and Mike Lewis
- 9:00–11:00 *BanditMTL: Bandit-based Multi-task Learning for Text Classification*
Yuren Mao, Zekai Wang, Weiwei Liu, Xuemin Lin and Wenbin Hu
- 9:00–11:00 *Unified Interpretation of Softmax Cross-Entropy and Negative Sampling: With Case Study for Knowledge Graph Embedding*
Hidetaka Kamigaito and Katsuhiko Hayashi
- 9:00–11:00 *Hi-Transformer: Hierarchical Interactive Transformer for Efficient and Effective Long Document Modeling*
Chuhan Wu, Fangzhao Wu, Tao Qi and Yongfeng Huang
- 9:00–11:00 *De-Confounded Variational Encoder-Decoder for Logical Table-to-Text Generation*
Wenqing Chen, Jidong Tian, Yitian Li, Hao He and Yaohui Jin
- 9:00–11:00 *Rethinking Stealthiness of Backdoor Attack against NLP Models*
Wenkai Yang, Yankai Lin, Peng Li, Jie Zhou and Xu Sun
- 9:00–11:00 *Crowdsourcing Learning as Domain Adaptation: A Case Study on Named Entity Recognition*
Xin Zhang, Guangwei Xu, Yueheng Sun, Meishan Zhang and Pengjun Xie
- 9:00–11:00 *Robust Transfer Learning with Pretrained Language Models through Adapters*
Wenjuan Han, Bo Pang and Ying Nian Wu
- 9:00–11:00 *Embracing Ambiguity: Shifting the Training Target of NLI Models*
Johannes Mario Meissner, Napat Thumwanit, Saku Sugawara and Akiko Aizawa
- 9:00–11:00 *Exploring Distantly-Labeled Rationales in Neural Network Models*
Quzhe Huang, Shengqi Zhu, Yansong Feng and Dongyan Zhao

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, Wenmian Yang, Xuehai He, Zeqian Ju, Subrato Chakravorty, Shu Chen, Xingyi Yang, Yichen Zhang, Qingyang Wu, Zhou Yu, Kun Xu, Eric Xing and Pengtao Xie

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

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

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, Xiyang Fu, Yue Zhang and Wenming Xiao

Poster 3N: NLP Applications

9:00–11:00 *Math Word Problem Solving with Explicit Numerical Values*
Qinzhuo Wu, Qi Zhang, Zhongyu Wei and Xuanjing Huang

9:00–11:00 *Neural-Symbolic Solver for Math Word Problems with Auxiliary Tasks*
Jinghui Qin, Xiaodan Liang, Yining Hong, Jianheng Tang and Liang Lin

9:00–11:00 *SMedBERT: A Knowledge-Enhanced Pre-trained Language Model with Structured Semantics for Medical Text Mining*
Taolin Zhang, Zerui Cai, Chengyu Wang, Minghui Qiu, Bite Yang and XIAOFENG HE

9:00–11:00 *What is Your Article Based On? Inferring Fine-grained Provenance*
Yi Zhang, Zachary Ives and Dan Roth

9:00–11:00 *Cross-modal Memory Networks for Radiology Report Generation*
Zhihong Chen, Yaling Shen, Yan Song and Xiang Wan

9:00–11:00 *Controversy and Conformity: from Generalized to Personalized Aggressiveness Detection*
Kamil Kanclerz, Alicja Figas, Marcin Gruza, Tomasz Kajdanowicz, Jan Kocon, Daria Puchalska and Przemyslaw Kazienko

9:00–11:00 *Multi-perspective Coherent Reasoning for Helpfulness Prediction of Multimodal Reviews*
Junhao Liu, Zhen Hai, Min Yang and Lidong Bing

9:00–11:00 *Instantaneous Grammatical Error Correction with Shallow Aggressive Decoding*
Xin Sun, Tao Ge, Furu Wei and Houfeng Wang

9:00–11:00 *Automatic ICD Coding via Interactive Shared Representation Networks with Self-distillation Mechanism*
Tong Zhou, Pengfei Cao, Yubo Chen, Kang Liu, Jun Zhao, Kun Niu, Weifeng Chong and Shengping Liu

9:00–11:00 *PHMOSpell: Phonological and Morphological Knowledge Guided Chinese Spelling Check*
Li Huang, Junjie Li, Weiwei Jiang, Zhiyu Zhang, Minchuan Chen, Shaojun Wang and Jing Xiao

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 Text Generation 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 Aralikkatte, 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, Jiakuan Zhao, Licheng Jiao, Xu Liu and Lingling Li

9:00–11:00 *Efficient Passage Retrieval with Hashing for Open-domain Question Answering*
Ikuya Yamada, Akari Asai and Hannaneh Hajishirzi

9:00–11:00 *xMoCo: Cross Momentum Contrastive Learning for Open-Domain Question Answering*
Nan Yang, Furu Wei, Binxing Jiao, Daxing Jiang and Linjun Yang

9:00–11:00 *Learn to Resolve Conversational Dependency: A Consistency Training Framework for Conversational Question Answering*
Gangwoo Kim, Hyunjae Kim, Jungsoo Park and Jaewoo Kang

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 Deroncourt 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*
Liyong 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 *GhostBERT: Generate More Features with Cheap Operations for BERT*
Zhiqi Huang, Lu Hou, Lifeng Shang, Xin Jiang, Xiao Chen and Qun Liu
- 14:20–14:30 *Super Tickets in Pre-Trained Language Models: From Model Compression to Improving Generalization*
Chen Liang, Simiao Zuo, Minshuo Chen, Haoming Jiang, Xiaodong Liu, Pengcheng He, Tuo Zhao and Weizhu Chen
- 14:30–14:40 *A Novel Estimator of Mutual Information for Learning to Disentangle Textual Representations*
Pierre Colombo, Pablo Piantanida and Chloé Clavel
- 14:40–14:50 *Determinantal Beam Search*
Clara Meister, Martina Forster and Ryan Cotterell
- 14:50–15:00 *Multi-hop Graph Convolutional Network with High-order Chebyshev Approximation for Text Reasoning*
Shuoran Jiang, Qingcai Chen, Xin Liu, Baotian Hu and Lisai Zhang

Session 14D: NLP Applications 4

- 14:00–14:10 *Accelerating Text Communication via Abbreviated Sentence Input*
Jiban Adhikary, Jamie Berger and Keith Vertanen
- 14:10–14:20 *Regression Bugs Are In Your Model! Measuring, Reducing and Analyzing Regressions In NLP Model Updates*
YUQING XIE, Yi-An Lai, Yuanjun Xiong, Yi Zhang and Stefano Soatto
- 14:20–14:30 *Detecting Propaganda Techniques in Memes*
Dimitar Dimitrov, Bishr Bin Ali, Shaden Shaar, Firoj Alam, Fabrizio Silvestri, Hamed Firooz, Preslav Nakov and Giovanni Da San Martino
- 14:30–14:37 *Unsupervised Cross-Domain Prerequisite Chain Learning using Variational Graph Autoencoders*
Irene Li, Vanessa Yan, Tianxiao Li, Rihao Qu and Dragomir Radev

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

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

Session 15A: Language Generation 3

- 15:00–15:10 *Language Model Augmented Relevance Score*
Ruibo Liu, Jason Wei and Soroush Vosoughi
- 15:10–15:20 *DExperts: Decoding-Time Controlled Text Generation with Experts and Anti-Experts*
Alisa Liu, Maarten Sap, Ximing Lu, Swabha Swayamdipta, Chandra Bhagavatula, Noah A. Smith and Yejin Choi
- 15:20–15:30 *Polyjuice: Generating Counterfactuals for Explaining, Evaluating, and Improving Models*
Tongshuang Wu, Marco Tulio Ribeiro, Jeffrey Heer and Daniel Weld
- 15:30–15:40 *Metaphor Generation with Conceptual Mappings*
Kevin Stowe, Tuhin Chakrabarty, Nanyun Peng, Smaranda Muresan and Iryna Gurevych
- 15:40–15:50 *Computational Framework for Slang Generation*
Zhewei Sun, Richard Zemel and Yang Xu
- 15:50–15:57 *Avoiding Overlap in Data Augmentation for AMR-to-Text Generation*
Wenchao Du and Jeffrey Flanigan

Session 15B: NLP Applications 5

- 15:00–15:10 *Learning Latent Structures for Cross Action Phrase Relations in Wet Lab Protocols*
Chaitanya Kulkarni, Jany Chan, Eric Fosler-Lussier and Raghu Machiraju
- 15:10–15:20 *Multimodal Multi-Speaker Merger & Acquisition Financial Modeling: A New Task, Dataset, and Neural Baselines*
Ramit Sawhney, Mihir Goyal, Prakhar Goel, Puneet Mathur and Rajiv Ratn Shah
- 15:20–15:30 *Mid-Air Hand Gestures for Post-Editing of Machine Translation*
Rashad Albo Jamara, Nico Herbig, Antonio Krüger and Josef van Genabith
- 15:30–15:40 *Inter-GPS: Interpretable Geometry Problem Solving with Formal Language and Symbolic Reasoning*
Pan Lu, Ran Gong, Shibiao Jiang, Liang Qiu, Siyuan Huang, Xiaodan Liang and Song-Chun Zhu

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, Wentau Yih and Sebastian Riedel
- 15:50–15:57 *Weakly-Supervised Methods for Suicide Risk Assessment: Role of Related Domains*
Chenghao Yang, Yudong Zhang and Smaranda Muresan

Session 15C: Resources and Evaluation 5

- 15:00–15:10 *Evaluation of Thematic Coherence in Microblogs*
Iman Munire Bilal, Bo Wang, Maria Liakata, Rob Procter and Adam Tsakalidis
- 15:10–15:20 *Neural semi-Markov CRF for Monolingual Word Alignment*
Wuwei Lan, Chao Jiang and Wei Xu
- 15:20–15:30 *Privacy at Scale: Introducing the PrivaSeer Corpus of Web Privacy Policies*
Mukund Srinath, Shomir Wilson and C Lee Giles
- 15:30–15:40 *The statistical advantage of automatic NLG metrics at the system level*
Johnny Wei and Robin Jia
- 15:40–15:50 *Are Missing Links Predictable? An Inferential Benchmark for Knowledge Graph Completion*
Yixin Cao, Xiang Ji, Xin Lv, Juanzi Li, Yonggang Wen and Hanwang Zhang
- 15:50–15:57 *Can Transformer Models Measure Coherence In Text: Re-Thinking the Shuffle Test*
Philippe Laban, Luke Dai, Lucas Bandarkar and Marti A. Hearst

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

Session 15D: Summarization 2

- 15:00–15:10 *ConvoSumm: Conversation Summarization Benchmark and Improved Abstractive Summarization with Argument Mining*
Alexander Fabbri, Faiaz Rahman, Imad Rizvi, Borui Wang, Haoran Li, Yashar Mehdad and Dragomir Radev
- 15:10–15:20 *Improving Factual Consistency of Abstractive Summarization via Question Answering*
Feng Nan, Cicero Nogueira dos Santos, Henghui Zhu, Patrick Ng, Kathleen McKeown, Ramesh Nallapati, Dejiao Zhang, Zhiguo Wang, Andrew O. Arnold and Bing Xiang
- 15:20–15:30 *EmailSum: Abstractive Email Thread Summarization*
Shiyue Zhang, Asli Celikyilmaz, Jianfeng Gao and Mohit Bansal
- 15:30–15:40 *Cross-Lingual Abstractive Summarization with Limited Parallel Resources*
Yu Bai, Yang Gao and Heyan Huang
- 15:40–15:50 *Dissecting Generation Modes for Abstractive Summarization Models via Ablation and Attribution*
Jiacheng Xu and Greg Durrett
- 15:50–15:57 *SimCLS: A Simple Framework for Contrastive Learning of Abstractive Summarization*
Yixin Liu and Pengfei Liu

Session 15E: Semantics: Lexical Semantics 2

- 15:00–15:10 *Learning Prototypical Functions for Physical Artifacts*
Tianyu Jiang and Ellen Riloff
- 15:10–15:20 *Verb Knowledge Injection for Multilingual Event Processing*
Olga Majewska, Ivan Vulić, Goran Glavaš, Edoardo Maria Ponti and Anna Korhonen
- 15:20–15:30 *Dynamic Contextualized Word Embeddings*
Valentin Hofmann, Janet Pierrehumbert and Hinrich Schütze
- 15:30–15:40 *Lexical Semantic Change Discovery*
Sinan Kurtayigit, Maike Park, Dominik Schlechtweg, Jonas Kuhn and Sabine Schulte im Walde

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

15:40–15:50 *Analysis and Evaluation of Language Models for Word Sense Disambiguation*
Daniel Loureiro, Kiamehr Rezaee, Mohammad Taher Pilehvar and Jose Camacho-Collados

15:50–16:00 *Let's Play mono-poly: BERT Can Reveal Words' Degree of Polysemy*
Aina Garí Soler and Marianna Apidianaki

Session 16A: Dialog and Interactive Systems 7

16:00–16:10 *Pretraining the Noisy Channel Model for Task-Oriented Dialogue*
Qi Liu, Lei Yu, Laura Rimell and Phil Blunsom

16:10–16:20 *The R-U-A-Robot Dataset: Helping Avoid Chatbot Deception by Detecting User Questions About Human or Non-Human Identity*
David Gros, Yu Li and Zhou Yu

16:20–16:30 *Conversation Graph: Data Augmentation, Training and Evaluation for Non-Deterministic Dialogue Management*
Milan Gritta, Gerasimos Lampourasm and Ignacio Iacobacci

16:30–16:40 *Using Meta-Knowledge Mined from Identifiers to Improve Intent Recognition in Conversational Systems*
Claudio Pinhanez, Paulo Cavalin, Victor Henrique Alves Ribeiro, Ana Appel, Heloisa Candello, Julio Nogima, Mauro Pichiliani, Melina Guerra, Maira de Bayser, Gabriel Malfatti and Henrique Ferreira

16:40–16:50 *Space Efficient Context Encoding for Non-Task-Oriented Dialogue Generation with Graph Attention Transformer*
Fabian Galetzka, Jewgeni Rose, David Schlangen and Jens Lehmann

16:50–17:00 *DialogueCRN: Contextual Reasoning Networks for Emotion Recognition in Conversations*
Dou Hu, Lingwei Wei and Xiaoyong Huai

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 Faruqi
- 16:20–16:30 *RAW-C: Relatedness of Ambiguous Words in Context (A New Lexical Resource for English)*
Sean Trott and Benjamin Bergen
- 16:30–16:40 *ARBERT & MARBERT: Deep Bidirectional Transformers for Arabic*
Muhammad Abdul-Mageed, AbdelRahim Elmadany and El Moatez Billah Nagoudi
- 16:40–16:47 *SaRoCo: Detecting Satire in a Novel Romanian Corpus of News Articles*
Ana-Cristina Rogoz, Gaman Mihaela and Radu Tudor Ionescu
- 16:47–16:54 *Bringing Structure into Summaries: a Faceted Summarization Dataset for Long Scientific Documents*
Rui Meng, khushboo Thaker, Lei Zhang, Yue Dong, Xingdi Yuan, Tong Wang and Daqing He

Session 16C: Semantics: Sentence-level Semantics, Textual Inference and Other areas 4

- 16:00–16:10 *Improving Paraphrase Detection with the Adversarial Paraphrasing Task*
Animesh Nigohkar 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

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

- 16:40–16:50 *Discriminative Reranking for Neural Machine Translation*
Ann Lee, Michael Auli and Marc’ Aurelio Ranzato
- 16:50–16:57 *Don’t Rule Out Monolingual Speakers: A Method For Crowdsourcing Machine Translation Data*
Rajat Bhatnagar, Ananya Ganesh and Katharina Kann

Best Paper Session

- 23:00–23:03 *EXPLAINBOARD: An Explainable Leaderboard for NLP*
Pengfei Liu, Jinlan Fu, Yang Xiao, Weizhe Yuan, Shuaichen Chang, Junqi Dai, Yixin Liu, Zihuiwen Ye and Graham Neubig
- 23:03–23:16 *Mind Your Outliers! Investigating the Negative Impact of Outliers on Active Learning for Visual Question Answering*
Siddharth Karamcheti, Ranjay Krishna, Li Fei-Fei and Christopher Manning
- 23:16–23:29 *All That’s ‘Human’ Is Not Gold: Evaluating Human Evaluation of Generated Text*
Elizabeth Clark, Tal August, Sofia Serrano, Nikita Haduong, Suchin Gururangan and Noah A. Smith
- 23:29–23:42 *Scientific Credibility of Machine Translation Research: A Meta-Evaluation of 769 Papers*
Benjamin Marie, Atsushi Fujita and Raphael Rubino
- 23:42–23:55 *Neural Machine Translation with Monolingual Translation Memory*
Deng Cai, Yan Wang, Huayang Li, Wai Lam and Lemao Liu
- 23:55–00:08 *Intrinsic Dimensionality Explains the Effectiveness of Language Model Fine-Tuning*
Armen Aghajanyan, Sonal Gupta and Luke Zettlemoyer
- 00:08–00:21 *UnNatural Language Inference*
Koustuv Sinha, Prasanna Parthasarathi, Joelle Pineau and Adina Williams
- 00:21–00:39 *Including Signed Languages in Natural Language Processing*
Kayo Yin, Amit Moryossef, Julie Hochgesang, Yoav Goldberg and Malihe Alikhani
- 00:39–00:57 *Vocabulary Learning via Optimal Transport for Neural Machine Translation*
Jingjing Xu, Hao Zhou, Chun Gan, Zaixiang Zheng and Lei Li

Thursday, August 5, 2021 (all times UTC+0)

01:00–01:30 *Distinguished Service and Test-Of-Time Awards session*

01:30–02:00 *Closing and Future Conferences*

