

ACL 2019

**The First International Workshop  
on Designing Meaning Representations**

**Proceedings of the Workshop**

August 1, 2019  
Florence, Italy

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## Preface

There are many pressing questions that need to be answered in the field of designing and parsing meaning representations. First and foremost, does the field have an existential crisis in the face of the powerful combination of distributed representations and deep neural networks that recently led to many advances in the field of Natural Language Processing? In other words, will the distributed representations displace the “traditional” symbolic meaning representations that have been in development for many decades? If the answer is no, what are the areas where the symbolic meaning representation is most needed and has an advantage over distributed representations? There are currently also different schools of thoughts on how meaning should be represented. Can a consensus be forged on the key elements of meaning representation that are most needed given our current understanding of the needs in natural language applications? Regardless of the breadth of their use in natural language processing, how can meaning representations help us to advance theoretical linguistic research?

The workshop intends to bring together researchers who are producers and consumers of meaning representations and through their interaction gain a deeper understanding of the key elements of meaning representations that are the most valuable to the NLP community. The workshop also provides an opportunity for meaning representation researchers to critically examine existing meaning representations with the goal of using their findings to inform the design of next-generation meaning representations. A third goal of the workshop is to explore opportunities and identify challenges in the design and use of meaning representations in multilingual settings. A final goal of the workshop is to understand the relationship between distributed meaning representations trained on large data sets using neural network models and the symbolic meaning representations that are carefully designed and annotated by CL researchers and gain a deeper understanding of areas where each type of meaning representation is the most effective.

We received 27 valid submissions, and accepted 10 papers for oral presentations and 12 for poster presentations. The papers address topics ranging from meaning representation methodologies to issues in meaning representation parsing, to the adaptation of meaning representations to specific applications and domains, to cross-linguistic issues in meaning representation. We thank the authors and reviewers for their contributions. In addition to the regular program, we also have three invited speakers, Omri Abend, Alexander Koller, and Fei Liu, to speak on typologically informed meaning representation design, cross-framework meaning representation parsing, and the application of meaning representations to abstractive summarization. We look forward to a stimulating and exciting workshop in Florence.

Nianwen Xue, William Croft, Jan Hajič, Chu-Ren Huang, Stephan Oepen, Martha Palmer, James Pustejovsky



**Organizers:**

Nianwen Xue, Brandeis University  
William Croft, University of New Mexico  
Jan Hajič, Charles University  
Chu-Ren Huang, The Hong Kong Polytechnic University  
Stephan Oepen, University of Oslo  
Martha Palmer, University of Colorado  
James Pustejovsky, Brandeis University

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Xu, Hongzhi, University of Pennsylvania  
Zhang, Yuchen, Brandeis University

**Invited Speakers:**

Omri Abend, Hebrew University of Jerusalem  
Alexander Koller, Saarland University  
Fei Liu, University of Central Florida

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## Workshop Program

**Thursday, August 1, 2019**

**08:50–10:30** Session A: invited talk + oral presentations

**08:50–09:00** Opening remarks, by Nianwen Xue, William Croft, Jan Hajic, Churen Huang, Stephan Oepen, Martha Palmer, James Pustejovsky

**09:00–09:40** Invited talk: "The Case for Typologically informed meaning representations", by Omri Abend

**09:40–10:00** *Cross-Linguistic Semantic Annotation: Reconciling the Language-Specific and the Universal*

Jens E. L. Van Gysel, Meagan Vigus, Pavlina Kalm, Sook-kyung Lee, Michael Regan and William Croft

**10:00–10:20** *Thirty Musts for Meaning Banking*

Lasha Abzianidze and Johan Bos

**10:20–10:30** *Modeling Quantification and Scope in Abstract Meaning Representations*

James Pustejovsky, Ken Lai and Nianwen Xue

**10:30–11:00** Coffee break

**11:00–12:40** Session B: invited talk + oral presentations

**Thursday, August 1, 2019 (continued)**

**11:00–11:40** **Invited Talk: "Compositional semantic parsing across graphbanks", by Alexander Koller**

11:40–12:00 *Parsing Meaning Representations: Is Easier Always Better?*  
Zi Lin and Nianwen Xue

12:00–12:20 *GKR: Bridging the Gap between Symbolic/structural and Distributional Meaning Representations*  
Aikaterini-Lida Kalouli, Richard Crouch and Valeria dePaiva

12:20–12:40 *Generating Discourse Inferences from Unscoped Episodic Logical Formulas*  
Gene Kim, Benjamin Kane, Viet Duong, Muskaan Mendiratta, Graeme McGuire, Sophie Sackstein, Georgiy Platonov and Lenhart Schubert

**12:40–14:10** **Lunch**

**14:10–15:50** **Session C: Invited talk and poster session**

**14:10–14:50** **Invited talk: "Toward Deep Abstractive Summarization Using Meaning Representations", by Fei Liu**

**14:50–15:50** **Poster session**

*A Plea for Information Structure as a Part of Meaning Representation*  
Eva Hajicova

Thursday, August 1, 2019 (continued)

*TCL - a Lexicon of Turkish Discourse Connectives*

Deniz Zeyrek and Kezban Başbüyük

*Meta-Semantic Representation for Early Detection of Alzheimer's Disease*

Jinho D. Choi, Mengmei Li, Felicia Goldstein and Ihab Hajjar

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Susan Windisch Brown, Julia Bonn, James Gung, Annie Zaenen, James Pustejovsky and Martha Palmer

**Thursday, August 1, 2019 (continued)**

**15:50–16:20 Coffee break**

**16:20–18:00 Session D: Oral presentations + panel discussion**

16:20–16:40 *Semantically Constrained Multilayer Annotation: The Case of Coreference*  
Jakob Prange, Nathan Schneider and Omri Abend

16:40–16:50 *Towards Universal Semantic Representation*  
Huaiyu Zhu, Yunyao Li and Laura Chiticariu

16:50–17:10 *A Dependency Structure Annotation for Modality*  
Meagan Vigus, Jens E. L. Van Gysel and William Croft

17:10–17:20 *Augmenting Abstract Meaning Representation for Human-Robot Dialogue*  
Claire Bonial, Lucia Donatelli, Stephanie M. Lukin, Stephen Tratz, Ron Artstein,  
David Traum and Clare Voss

**17:20–18:00 Panel Discussion on how to represent tense, aspect and modality. Panelists:  
Lucia Donatelli, Yunyao Li, Meagan Vigus, and others**