

NAACL HLT 2018

**Computational Models of  
Reference, Anaphora and Coreference**

**Proceedings of the Workshop**

June 6, 2018  
New Orleans, Louisiana

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## Introduction

There has been a lot of research activity in anaphora / coreference resolution in recent years, but once the DAARC series ended, there have been no events in Computational Linguistics entirely dedicated to this type of research. The Coreference Beyond Ontonotes (CORBON) workshops held in 2016 (with NAACL) and 2017 (with EACL) partially addressed this need, but their focus was primarily on under-investigated coreference phenomena. This 2018 workshop on Computational Models of Reference, Anaphora and Coreference aims to be the first of a series of workshops with a broader focus, aiming to attract the entire anaphora / coreference / reference community. Our intention is for these workshops to provide a forum where work on all aspects of computational work on anaphora resolution and annotation can be presented, including both research on coreference and research on types of anaphora such as bridging references resolution and discourse deixis. We also hope to attract research on closely related topics such as psycholinguistic models of anaphoric interpretation and computational models of reference—e.g., research on deictical reference to objects displayed in a multimodal interface.

This year's workshop attracted 16 submissions. 11 were accepted, for an acceptance rate of 68%. The accepted papers cover work on anaphora annotation or resolution in 6 different languages. As traditional in this series of workshops, a number of papers focus on less-studied aspects of anaphora resolution such as bridging reference resolution or discourse deixis resolution, but many papers study coreference as well. The genres are also varied, ranging from news to social media and dialogue.

The workshop was again associated with a Shared Task. This year's Shared Task, co-chaired by Yulia Grishina and Massimo Poesio, was on anaphora resolution in the ARRAU corpus, an anaphorically annotated corpus of English that contains documents covering both written text and spoken dialogue, and annotated for identity anaphora, bridging reference and discourse deixis. Two of the papers in the workshop, by Poesio *et al* and by Roesiger, describe work related to the Shared Task.

To conclude, we wish to thank the Program Committee, who did an excellent job at choosing papers in a very short time, and the organizers of the Shared Task. And we're looking forward to meeting the authors and the other participants to the workshop in New Orleans.

Massimo Poesio, Vincent Ng, and Maciej Ogrodniczuk



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Vincent Ng, University of Texas at Dallas (USA)  
Maciej Ogrodniczuk, Institute of Computer Science, Polish Academy of Sciences (Poland)

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Yannick Versley, IBM (Germany)  
Sam Wiseman, Harvard University (USA)  
Heike Zinsmeister, University of Hamburg (Germany)

**Invited Speaker:**

Ana Marasovic, Institut für Computerlinguistik, Universität Heidelberg (Germany)

**Shared Task Organizers:**

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# Workshop Program

**Wednesday June 6 2018**

**09:00–10:30 Session 1**

09:00–09:10 *Welcome*  
Massimo Poesio, Vincent Ng, Maciej Ogrodniczuk

09:10–10:00 *Invited Talk*  
Ana Marasovic

10:00–10:30 *Anaphora Resolution for Twitter Conversations: An Exploratory Study*  
Berfin Aktaş, Tatjana Scheffler and Manfred Stede

**10:30–11:00 Break**

**11:00–12:30 Session 2: Shared Task, Plural Reference**

11:00–11:30 *Anaphora Resolution with the ARRAU Corpus*  
Massimo Poesio, Yulia Grishina, Varada Kolhatkar, Nafise Moosavi, Ina Roesiger, Adam Roussel, Fabian Simonjetz, Alexandra Uma, Olga Uryupina, Juntao Yu and Heike Zinsmeister

11:30–12:00 *Rule- and Learning-based Methods for Bridging Resolution in the ARRAU Corpus*  
Ina Roesiger

12:00–12:30 *A Predictive Model for Notional Anaphora in English*  
Amir Zeldes

**Wednesday June 6 2018 (continued)**

**12:30–14:00 Lunch**

**14:00–15:30 Session 3: Bridging, Discourse deixis, Anaphora in German, Corpus annotation 1**

14:00–14:20 *Integrating Predictions from Neural-Network Relation Classifiers into Coreference and Bridging Resolution*

Ina Roesiger, Maximilian Köper, Kim Anh Nguyen and Sabine Schulte im Walde

14:20–14:50 *Towards Bridging Resolution in German: Data Analysis and Rule-based Experiments*

Janis Pagel and Ina Roesiger

14:50–15:10 *Detecting and Resolving Shell Nouns in German*

Adam Roussel

15:10–15:30 *PAWS: A Multi-lingual Parallel Treebank with Anaphoric Relations*

Anna Nedoluzhko, Michal Novák and Maciej Ogrodniczuk

**15:30–16:00 Break**

**16:00–17:30 Session 4: Corpus Annotation 2, Cognitive Models**

16:00–16:30 *A Fine-grained Large-scale Analysis of Coreference Projection*

Michal Novák

16:30–17:00 *Modeling Brain Activity Associated with Pronoun Resolution in English and Chinese*

Jixing Li, Murielle Fabre, Wen-Ming Luh and John Hale

17:00–17:30 *Event versus entity co-reference: Effects of context and form of referring expression*

Sharid Loáiciga, Luca Bevacqua, Hannah Rohde and Christian Hardmeier