

IWPT 2020

**The 16th International Conference
on Parsing Technologies and
IWPT 2020 Shared Task on
Parsing into Enhanced Universal Dependencies**

Proceedings of the Conference

July 9, 2020

Organized by SIGPARSE
the ACL Special Interest Group on Natural Language Parsing

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Preface

Welcome to the 16th International Conference on Parsing Technologies (IWPT 2020), which this year (for the first time since 2007) is co-located with the Annual Meeting of the Association for Computational Linguistics (ACL). The IWPT meeting series, hosted by the ACL Special Interest Group in Natural Language Parsing (SIGPARSE), has been held biennially since its inaugural meeting in 1989 in Pittsburgh, PA (USA).

For 2020, the SIGPARSE steering group decided to try out something new, co-location with the main ACL meeting in the form of a reduced one-day IWPT programme. The main motivation for this move was to reduce fragmentation (and travel) and to increase IWPT visibility in the ‘mainstream’ ACL community (we already know that at least one of these goals was attained). At the same time, IWPT launches its own series of parsing shared tasks this year, which strengthens the experimental and applied perspective on parsing technologies in the conference programme.

The IWPT 2020 shared task focuses on the parsing of Enhanced Universal Dependencies (EUD) over 17 languages. This is the first time that graph-based representations of syntactic structures are evaluated on such a large scale, and we believe it will pave way for research on richer models and representations. The task attracted system submissions from ten teams from around the world and, thus, establishes a highly relevant point of comparison for this line of syntactic analysis. We are very grateful to everyone who contributed to this shared task, starting with the data providers who worked hard to meet our deadline. Thanks to the participant teams who worked tirelessly in a short time period to provide such a set of great and interesting systems!

Owing to the COVID-19 pandemic this year, the meeting will regrettably be held entirely virtual, where for IWPT we have adopted a mostly-asynchronous format: Accepted papers (of three different types: long, short, and shared task) will be presented through pre-recorded talks, which become available online for individual viewing before the actual conference day. On the original date of the conference, July 9, there will be a three-hour live session, scheduled so that the timing should be convenient (all things considered) for participants around the world: 14:00–17:00 UTC, which translates, for example, into a starting time at 7:00 in the morning at the US West Coast and wrapping up at 1:00 in the morning in Melbourne, Australia. The live sessions will be devoted exclusively to questions and answers, organized into five thematic sessions. Authors of papers associated with each session will be available to answer questions and discuss their work (possibly also among themselves).

There has been (and to some degree still is) much uncertainty about the format of ACL and IWPT this year, and in a sense we were positively surprised to receive a number of submissions comparable to recent IWPT instances. Out of 24 regular paper submissions, the programme committee accepted 14 for presentation at the conference. The IWPT 2020 programme is complemented by one invited talk, by Paola Merlo of the University of Geneva (to whom we are immensely grateful for honoring her commitment despite the mostly-asynchronous, virtual format) and by an overview paper and ten system descriptions from the IWPT 2020 shared task. We further gratefully acknowledge the work of authors and reviewers, as well as of the ACL workshop chairs, who had to try and shepherd our community through a difficult logistics process.

Copenhagen, Davis, Groningen, Kyoto, Oslo, Paris, Peking, Prague, and Tel Aviv

Gosse Bouma, Yuji Matsumoto, Stephan Oepen, Kenji Sagae, Djamé Seddah,
Weiwei Sun, Anders Søgaard, Reut Tsarfaty, and Dan Zeman

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Gosse Bouma, University of Groningen (Shared Task Co-Chair)
Djamé Seddah, University Paris-Sorbonne (Shared Task Co-Chair)
Dan Zeman, Charles University in Prague (Shared Task Co-Chair)
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Gertjan van Noord
Joachim Wagner
Rui Yan
Daniel Zeman
Yi Zhang
Yue Zhang

Invited Speaker:

Paola Merlo, University of Geneva

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Conference Program

July 9, 2020

14:00 UTC–14:15 UTC Session 1: Invited Talk Q&A

Syntactic Parsing in Humans and Machines

Paola Merlo

14:15 UTC–14:40 UTC Session 2: Regular Papers Q&A

Distilling Neural Networks for Greener and Faster Dependency Parsing

Mark Anderson and Carlos Gómez-Rodríguez

End-to-End Negation Resolution as Graph Parsing

Robin Kurtz, Stephan Oepen and Marco Kuhlmann

Integrating Graph-Based and Transition-Based Dependency Parsers in the Deep Contextualized Era

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Semi-supervised Parsing with a Variational Autoencoding Parser

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Memory-bounded Neural Incremental Parsing for Psycholinguistic Prediction

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Zhifeng Hu, Serhii Havrylov, Ivan Titov and Shay B. Cohen

Tensors over Semirings for Latent-Variable Weighted Logic Programs

Esma Balkir, Daniel Gildea and Shay B. Cohen

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15:10 UTC–15:35 UTC Session 4: Regular Papers Q&A

Advances in Using Grammars with Latent Annotations for Discontinuous Parsing

Kilian Gebhardt

Lexicalization of Probabilistic Linear Context-free Rewriting Systems

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Span-Based LCFRS-2 Parsing

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15:35 UTC–16:00 UTC Session 5: Regular Papers Q&A

Analysis of the Penn Korean Universal Dependency Treebank (PKT-UD): Manual Revision to Build Robust Parsing Model in Korean

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Statistical Deep Parsing for Spanish Using Neural Networks

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The Importance of Category Labels in Grammar Induction with Child-directed Utterances

Lifeng Jin and William Schuler

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16:10 UTC–17:00 UTC Session 6: Shared Task Q&A

Overview of the IWPT 2020 Shared Task on Parsing into Enhanced Universal Dependencies

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