

IWPT 2025

**18th International Conference on Parsing Technologies
(IWPT, SyntaxFest 2025)**

Proceedings

August 26, 2025

The IWPT organizers gratefully acknowledge the support from the following sponsors.

VITASIS



Ljubljana Tourism



Mestna občina
Ljubljana



Flanders
State of the Art



CJVT Centre for
Language Resources
and Technologies



AI4DH CENTRE OF EXCELLENCE IN AI
FOR DIGITAL HUMANITIES

Organized by



As part of SyntaxFest 2025



©2025 Association for Computational Linguistics

Order copies of this and other ACL proceedings from:

Association for Computational Linguistics (ACL)
317 Sidney Baker St. S
Suite 400 - 134
Kerrville, TX 78028
USA
Tel: +1-855-225-1962
acl@aclweb.org

ISBN 979-8-89176-294-7

Introduction

Welcome to the 18th International Conference on Parsing Technologies (IWPT 2025). Since its inaugural meeting in 1989 in Pittsburgh, PA, USA, the IWPT meeting series has been hosted by the Special Interest Group on Natural Language Parsing of the Association for Computational Linguistics as SIGPARSE’s primary specialized forum for research on natural language parsing. This year, for the first time, IWPT is held as part of SyntaxFest 2025 in Ljubljana, Slovenia, which brings together five related but independent events:

- 18th International Conference on Parsing Technologies (IWPT 2025)
- 8th Universal Dependencies Workshop (UDW 2025)
- 8th International Conference on Dependency Linguistics (DepLing 2025)
- 23rd Workshop on Treebanks and Linguistic Theories (TLT 2025)
- 3rd Workshop on Quantitative Syntax (QUASY 2025)

In addition, a pre-conference workshop organized by the COST Action CA21167 – Universality, Diversity and Idiosyncrasy in Language Technology (UniDive) was held prior to the main event, with dedicated sessions on the 1st UniDive Shared Task on Morphosyntactic Parsing and the 2nd Workshop on Universal Dependencies for Turkic Languages.

SyntaxFest 2025 continues the tradition of SyntaxFest 2019 (Paris, France), SyntaxFest 2021 (Sofia, Bulgaria), and GURT/SyntaxFest 2023 (Washington DC, USA) in bringing together multiple events that share a common interest in using corpora and treebanks for empirically validating syntactic theories, studying syntax from quantitative and theoretical points of view, and training machine learning models for natural language processing. Much of this research is increasingly multilingual and cross-lingual and requires continued systematic analysis from various theoretical, applied, and practical perspectives. By co-locating these workshops under a shared umbrella, SyntaxFest fosters dialogue between overlapping research communities and supports innovation at the intersection of linguistics and language technology. As in previous editions, all five workshops at SyntaxFest 2025 shared a common submission and reviewing process, with a unified timeline, identical submission formats, and a shared program committee. During submission, authors could indicate one or more preferred venues, but the final assignment of papers was determined by the collective program chairs, composed of the individual workshop chairs, based on thematic alignment. All accepted submissions were peer-reviewed by at least three reviewers from the shared program committee.

In total, SyntaxFest 2025 received 94 submissions, of which 73 (78%) were accepted for presentation. The final program included a total of 47 long papers, 21 short papers, and 5 non-archival contributions, distributed across the five workshops: 5 papers were presented at IWPT (2 long, 3 short); 20 at UDW (14 long, 5 short, 1 non-archival); 16 at DepLing (12 long, 2 short, 2 non-archival); 18 at TLT (10 long, 7 short, 1 non-archival); and 14 at QUASY (9 long, 4 short, 1 non-archival).

Our sincere thanks go to everyone who made this event possible. We thank all authors for their submissions and the reviewers for their time and thoughtful feedback, which contributed to a diverse and high-quality program. Special thanks go to the local organizing team at the University of Ljubljana and the Slovene Language Technologies Society for hosting the event, and to the sponsors for their generous support. Finally, we gratefully acknowledge ACL SIGPARSE for endorsing the event and the ACL Anthology for publishing the proceedings.

Kenji Sagae, Stephan Oepen (IWPT 2025 Chairs)

Gosse Bouma, Çağrı Çöltekin (UDW 2025 Chairs)

Eva Hajičová, Sylvain Kahane (DepLing 2025 Chairs)

Heike Zinsmeister, Sarah Jablotschkin, Sandra Kübler (TLT 2025 Chairs)

Xinying Chen, Yaqin Wang (QUASY 2025 Chairs)
Kaja Dobrovoljc (SyntaxFest 2025 Organization Chair)

Ljubljana, August 2025

Organizing Committee

TLT Chairs

Heike Zinsmeister, University of Hamburg
Sarah Jablotschkin, University of Hamburg
Sandra Kübler, Indiana University

DepLing Chairs

Eva Hajičová, Charles University, Prague
Sylvain Kahane, Université Paris Nanterre

UDW Chairs

Gosse Bouma, University of Groningen
Çağrı Çöltekin, University of Tübingen

IWPT Chairs

Kenji Sagae, University of California, Davis
Stephan Oepen, University of Oslo

QUASY Chairs

Xinying Chen, University of Ostrava
Yaqin Wang, Guangdong University of Foreign Studies

Publication Chair

Sarah Jablotschkin, University of Hamburg

Local SyntaxFest 2025 Organizing Committee

Kaja Dobrovoljc, University of Ljubljana, SDJT
Špela Arhar Holdt, University of Ljubljana
Luka Terčon, University of Ljubljana
Marko Robnik-Šikonja, University of Ljubljana
Matej Klemen, University of Ljubljana
Sara Kos, University of Ljubljana
Timotej Knez, University of Ljubljana, SDJT
Tinca Lukan, University of Ljubljana

Special Thanks for designing the SyntaxFest 2025 logo to

Kim Gerdes, Université Paris-Saclay

Program Committee

Shared Program Committee

V.S.D.S.Mahesh Akavarapu, Eberhard-Karls-Universität Tübingen
Leonel Figueiredo de Alencar, Federal University of Ceará (UFC)
Patricia Amaral, Indiana University
Giuseppe Attardi, University of Pisa
John Bauer, Stanford University
David Beck, University of Alberta
Laura Becker, Albert-Ludwigs-Universität Freiburg
Aleksandrs Berdicevskis, Gothenburg University
Ann Bies, University of Pennsylvania
Igor Boguslavsky, Universidad Politécnica de Madrid
Bernd Bohnet, Google
Cristina Bosco, University of Turin
Gosse Bouma, University of Groningen
Miriam Butt, Universität Konstanz
G. A. Celano, Universität Leipzig
Heng Chen, Guangdong University of Foreign Studies
Xinying Chen, University of Ostrava
Jinho D. Choi, Emory University
Çağrı Çöltekin, University of Tuebingen
Daniel Dakota, Leidos
Stefania Degaetano-Ortlieb, Universität des Saarlandes
Kaja Dobrovoljc, University of Ljubljana
Jakub Dotlacil, Utrecht University
Gülşen Eryiğit, Istanbul Technical University
Kilian Evang, Heinrich Heine University Düsseldorf
Pegah Faghiri, CNRS
Ramon Ferrer-i-Cancho, Universidad Politécnica de Cataluna
Marcos Garcia, Universidade de Santiago de Compostela
Kim Gerdes, Université Paris-Saclay
Loïc Grobol, Université Paris Nanterre
Bruno Guillaume, INRIA
Carlos Gómez-Rodríguez, Universidade da Coruña
Eva Hajicova, Charles University
Dag Trygve Truslew Haug, University of Oslo
Santiago Herrera, University of Paris Nanterre
Richard Hudson, University College London
Maarten Janssen, Charles University Prague
Jingyang Jiang, Zhejiang University
Mayank Jobanputra, Universität des Saarlandes
Sylvain Kahane, Université Paris Nanterre
Václava Kettnerová, Charles University Prague
Sandra Kübler, Indiana University
Guy Lapalme, University of Montreal
François Lareau, Université de Montréal
Miryam de Lhoneux, KU Leuven
Zoey Liu, University of Florida

Teresa Lynn, Dublin City University
Jan Macutek, Slovak Academy of Sciences
Robert Malouf, San Diego State University
Marie-Catherine de Marneffe, UCLouvain
Nicolas Mazziotta, Université de Liège
Alexander Mehler, Johann Wolfgang Goethe Universität Frankfurt am Main
Maitrey Mehta, University of Utah
Wolfgang Menzel, Universität Hamburg
Marie Mikulová, Charles University
Aleksandra Miletić, University of Helsinki
Jasmina Milićević, Dalhousie University
Simon Mille, Dublin City University
Yusuke Miyao, The University of Tokyo
Noor Abo Mokh, Indiana University
Simonetta Montemagni, Institute for Computational Linguistics “A. Zampolli” (ILC-CNR)
Jiří Mírovský, Charles University Prague
Kaili Müürisep, Institute of computer science, University of Tartu
Anna Nedoluzhko, Charles University Prague
Ruo Chen Niu, Beijing Language and Culture University
Joakim Nivre, Uppsala University
Stephan Oepen, University of Oslo
Timothy John Osborne, Zhejiang University
Petya Osenova, Sofia University “St. Kliment Ohridski”
Agnieszka Patejuk, Polish Academy of Sciences
Lucie Poláková, Charles University Prague
Prokopis Prokopidis, Athena Research Center
Mathilde Regnault, Universität Stuttgart
Kateřina Rysová, University of South Bohemia
Magdaléna Rysová, Charles University Prague
Tanja Samardžić, University of Zurich
Giuseppe Samo, Beijing Language and Culture University
Haruko Sanada, Rissho University
Nathan Schneider, Georgetown University
Djamé Seddah, Sorbonne University
Anastasia Shimorina, Orange
Maria Simi, University of Pisa
Achim Stein, University of Stuttgart
Daniel G. Swanson, Indiana University
Luka Terčon, Faculty of Arts, University of Ljubljana
Giulia Venturi, Institute for Computational Linguistics “A. Zampolli” (ILC-CNR)
Veronika Vincze, University of Szeged
Yaqin Wang, Guangdong University of Foreign Studies
Pan Xiaxing, Huaqiao University
Chunshan Xu, Anhui Jianzhu University
Nianwen Xue, Brandeis University
Jianwei Yan, Zhejiang University
Zdeněk Zabokrtský, Faculty of Mathematics and Physics, Charles University Prague
Eva Zehentner, University of Zurich
Amir Zeldes, Georgetown University
Daniel Zeman, Charles University Prague
Šárka Zikánová, Charles University Prague

Heike Zinsmeister, Universität Hamburg

Keynote

What can we learn from language models?

Isabel Papadimitriou

Kempner Institute for the Study of Natural and Artificial Intelligence at Harvard University



Abstract: This talk will examine how linguistic theory can benefit from the recent surprising successes of language models in modeling human language production. Language models provide linguists with an unprecedented empirical tool to expand and test our theoretical hypotheses about language. I will go over two main methodologies for taking advantage of language models as an empirical tool. Firstly, examining language model internals as functional theories for how linguistic information can be represented in ways that lead to linguistic capabilities. Secondly, using model training as an empirical testbed, examining what kinds of environments make statistical language learning possible or harder. Both methodologies showcase the importance of developing empirical paradigms that narrow the gap between computational methods and linguistic concerns in order to make language models able to help us expand theoretical horizons.

Bio: Isabel Papadimitriou is a Kempner Fellow at the Kempner Institute for the Study of Natural and Artificial Intelligence at Harvard, and incoming as an assistant professor of linguistics at the University of British Columbia. She is interested in analyzing how large language models learn and represent abstract structural systems, and in how experiments on language models can help enrich the hypothesis space around what makes the learning and representation of language possible.

Table of Contents

<i>An Efficient Parser for Bounded-Order Product-Free Lambek Categorical Grammar via Term Graph</i> Jinman Zhao and Gerald Penn	1
<i>Step-by-step Instructions and a Simple Tabular Output Format Improve the Dependency Parsing Accuracy of LLMs</i> Hiroshi Matsuda, Chunpeng Ma and Masayuki Asahara	11
<i>CCG Revisited: A Multilingual Empirical Study of the Kuhlmann-Satta Algorithm</i> Paul He and Gerald Penn	20
<i>High-Accuracy Transition-Based Constituency Parsing</i> John Bauer and Christopher D. Manning	26
<i>Crosslingual Dependency Parsing of Hawaiian and Cook Islands Māori using Universal Dependencies</i> Gabriel H. Gilbert, Rolando Coto-Solanu, Sally Akevai Nicholas, Lauren Houchens, Sabrina Barton and Trinity Pryor	40