Proceedings of the Conference

September 18-20, 2017
Università di Pisa
Istituto di Linguistica Computazionale “A. Zampolli”, CNR Pisa

Edited by Simonetta Montemagni and Joakim Nivre
Preface

The Depling 2017 conference in Pisa is the fourth meeting in the recently established series of international conferences on Dependency Linguistics which started in Barcelona in 2011 and continued in Prague and Uppsala in 2013 and 2015, respectively. The initiative to organize special meetings devoted to Dependency Linguistics, which is currently at the forefront of both theoretical and computational linguistics, has received great support from the community. We do hope that the present conference will manage to keep up the high standards set by the previous meetings.

This year we received 41 submissions by 93 authors from 27 countries, one of which was withdrawn before reviewing. Of the remaining 40 submissions (each reviewed by 3 members of the Program Committee), 30 were accepted, resulting in an acceptance rate of 75%. All in all, the proceedings contain a wide range of contributions to Dependency Linguistics, ranging from papers advancing new theoretical models, through empirical studies of one or more languages, as well as experimental investigations of computational systems of dependency parsing and linguistic knowledge extraction, to the design and construction of dependency-based linguistic resources (both treebanks and lexicons) for a wide range of languages.

New to Depling 2017 edition is the fact that the conference is held in conjunction with the biennial meeting of SIGPARSE, namely the International Conference on Parsing Technologies (IWPT 2017), organized by the Special Interest Group on “Natural Language Parsing” of the Association for Computational Linguistics (ACL). IWPT 2017 will take place immediately after Depling 2017, from the 20th to 22nd of September 2017. The two conferences have an overlapping event, held on September 20th and focusing on different aspects of dependency parsing, in which the results of a shared task jointly organized by Depling and IWPT are presented and discussed from different and complementary perspectives.

The shared task, named “Extrinsic Parser Evaluation” (EPE) and playing the role of “bridge event” between the two conferences, is aimed at shedding light on the downstream utility of various dependency representations (at the available levels of accuracy for different parsers), that is, to seek to contrastively isolate the relative contributions of each type of representation (and corresponding parsing systems) to a selection of state-of-the-art systems (which use different types of text and exhibit broad domain and genre variation).

In addition to the accepted papers, the core conference program also includes the contribution of two distinguished keynote speakers, Yoav Goldberg (Bar Ilan University) and Eva Hajičová (Charles University in Prague). We are honoured that they accepted to contribute to Depling 2017 and thank them for agreeing to share their knowledge and expertise on key Dependency Linguistics topics with the conference participants.

Our sincere thanks go to the members of the Program Committee who thoroughly reviewed all the submissions to the conference and provided detailed comments and suggestions, thus ensuring the quality of the published papers. Many thanks to the members of the Local Organizing Committee who took care of all matters related to the local organization of the conference. Thanks are also due to Michela Carlino, who did a great job in putting the proceedings together, and to Chiara Mannari, for designing and constructing the Depling and IWPT+Depling conference websites and continuously updating them. Last but not least, we would like to acknowledge the support from endorsing organizations and institutions and from our sponsors, who generously provided funds and
services that are crucial for the organization of this event. At the time of writing, Depling was sponsored by the newly founded “Italian Association of Computational Linguistics” (AILC) and by the University of Pisa. Special thanks are also due to the Institute for Computational Linguistics “Antonio Zampolli” of the Italian National Research Council (ILC-CNR) for the support in the organization of the event. Thanks finally to everyone who chose to submit their work to Depling 2017, without whom this volume literally would not exist.

We welcome you all to Depling 2017 in Pisa and wish you an enjoyable conference!

Simonetta Montemagni and Joakim Nivre

Program Co-Chairs, Depling 2017
Organizers

Program Co-Chairs

- Simonetta Montemagni, Istituto di Linguistica Computazionale “A. Zampolli” - CNR
- Joakim Nivre, Uppsala University

Local Organizing Committee

- Giuseppe Attardi, Università di Pisa
- Felice Dell’Orletta, Istituto di Linguistica Computazionale “A. Zampolli” - CNR
- Alessandro Lenci, Università di Pisa
- Simonetta Montemagni, Istituto di Linguistica Computazionale “A. Zampolli” - CNR
- Maria Simi, Università di Pisa

Program Committee

- Giuseppe Attardi, Università di Pisa
- Miguel Ballesteros, IBM Research Watson
- Xavier Blanco, Universitat Autònoma de Barcelona
- Igor Boguslavsky, Universidad Politecnica de Madrid and Russian Academy of Sciences
- Bernd Bohnet, Google
- Cristina Bosco, Università di Torino
- Marie Candito, Université Paris Diderot
- Jinho Choi, University of Colorado at Boulder
- Benoit Crabbé, Université Paris Diderot
- Eric De La Clergerie, INRIA
- Felice Dell’Orletta, Istituto di Linguistica Computazionale “A. Zampolli” - CNR
- Marie-Catherine de Marneffe, The Ohio State University
- Kim Gerdes, Sorbonne Nouvelle
- Filip Ginter, University of Turku
- Koldo Gojenola, University of the Basque Country UPV/EHU
- Carlos Gómez-Rodríguez, Universidade da Coruña
- Eva Hajičová, Charles University in Prague
- Richard Hudson, University College London
- Leonid Iomdin, Russian Academy of Sciences
- Sylvain Kahane, Université Paris Ouest Nanterre
- Marco Kuhlmann, Linköping University
- François Lareau, Université de Montréal
- Alessandro Lenci, Università di Pisa
- Beth Levin, Stanford University
- Haitao Liu, Zhejiang University
- Marketa Lopatková, Charles University in Prague
- Ryan McDonald, Google
Igor Mel'čuk, University of Montreal
Wolfgang Menzel, Hamburg University
Paola Merlo, Université de Genève
Jasmina Milicevic, Dalhousie University
Henrik Höeg Müller, Copenhagen Business School
Alexis Nasr, Université de la Méditerranée
Pierre Nugues, Lund University
Kemal Oflazer, Carnegie Mellon University Qatar
Timothy Osborne, Zhejiang University
Jarmila Panevova, Charles University in Prague
Alain Polguère, Université de Lorraine ATILF CNRS
Prokopis Prokopidis, Institute for Language and Speech Processing/Athena RC, Greece
Owen Rambow, Columbia University
Ines Rehbein, Potsdam University
Dipti Sharma, IIIT, Hyderabad
Maria Simi, Università di Pisa
Reut Tsarfaty, Open University of Israel
Giulia Venturi, Istituto di Linguistica Computazionale “A. Zampolli” - CNR
Leo Wanner, Pompeu Fabra University
Daniel Zeman, Charles University in Prague
Yue Zhang, Singapore University of Technology and Design

Supporting Institutions

- Università degli Studi di Pisa
  - Dipartimento di Filologia, Letteratura e Linguistica
  - Dipartimento di Informatica
- Istituto di Linguistica Computazionale “A. Zampolli”, Consiglio Nazionale delle Ricerche

Sponsor

- Associazione Italiana di Linguistica Computazionale (AILC)
Table of Contents

Invited Talk: Capturing Dependency Syntax with “Deep” Sequential Models
   Yoav Goldberg .......................................................................................................................... 1

Invited Talk: Syntax-Semantics Interface: A Plea for a Deep Dependency Sentence Structure
   Eva Hajičová .......................................................................................................................... 2

The Benefit of Syntactic vs. Linear N-Grams for Linguistic Description
   Melanie Andresen and Heike Zinsmeister ............................................................................ 4

On the Predicate-Argument Structure: Internal and Absorbing Scope
   Igor Boguslavsky .................................................................................................................. 15

On the Order of Words in Italian: A Study on Genre vs Complexity
   Dominique Brunato and Felice Dell’Orletta ........................................................................ 25

Revising the METU-Sabancı Turkish Treebank: An Exercise in Surface-Syntactic Annotation of Agglutinative Languages
   Alicia Burga, Alp Öktem and Leo Wanner ......................................................................... 32

Enhanced UD Dependencies with Neutralized Diathesis Alternation
   Marie Candito, Bruno Guillaume, Guy Perrier and Djamé Seddah ..................................... 42

Classifying Languages by Dependency Structure. Typologies of Delexicalized Universal Dependency Treebanks
   Xinying Chen and Kim Gerdes ............................................................................................ 54

A Dependency Treebank for Kurmanji Kurdish
   Memduh Gökirmak and Francis M. Tyers .......................................................................... 64
What are the Limitations on the Flux of Syntactic Dependencies? Evidence from UD Treebanks
Sylvain Kahane, Chunxiao Yan and Marie-Amélie Botalla .......................................................... 73

Fully Delexicalized Contexts for Syntax-Based Word Embeddings
Jenna Kanerva, Sampo Pyysalo and Filip Ginter ........................................................................ 83

Universal Dependencies for Dargwa Mehweb
Alexandra Kozhukhar ........................................................................................................... 92

Menzerath-Altmann Law in Syntactic Dependency Structure
Ján Mačutek, Radek Čech and Jiří Milička ......................................................................... 100

Assessing the Annotation Consistency of the Universal Dependencies Corpora
Marie-Catherine de Marneffe, Matias Grioni, Jenna Kanerva and Filip Ginter .............. 108

To What Extent is Immediate Constituency Analysis Dependency-Based? A Survey of Foundational Texts
Nicolas Mazziotta and Sylvain Kahane ............................................................................... 116

Dependency Structure of Binary Conjunctions (of the IF…, THEN… Type)
Igor Mel’čuk ......................................................................................................................... 127

Non-Projectivity in Serbian: Analysis of Formal and Linguistic Properties
Aleksandra Miletic and Assaf Urieli .................................................................................... 135

Prices Go Up, Surge, Jump, Spike, Skyrocket, Go through the Roof… Intensifier Collocations with Parametric Nouns of Type PRICE
Jasmina Milićević ................................................................................................................. 145

Chinese Descriptive and Resultative V-de Constructions. A Dependency-based Analysis
Ruochen Niu ......................................................................................................................... 154
The Component Unit. Introducing a Novel Unit of Syntactic Analysis

Timothy Osborne and Ruochen Niu ................................................................. 165

Control vs. Raising in English. A Dependency Grammar Account

Timothy Osborne and Matthew Reeve .......................................................... 176

Segmentation Granularity in Dependency Representations for Korean

Jungyeul Park ..................................................................................................... 187

Universal Dependencies for Portuguese

Alexandre Rademaker, Fabricio Chalub, Livy Real, Cláudia Freitas, Eckhard Bick and
Valeria de Paiva ................................................................................................. 197

UDLex: Towards Cross-language Subcategorization Lexicons

Giulia Rambelli, Alessandro Lenci and Thierry Poibeau .................................... 207

Universal Dependencies are Hard to Parse – or are They?

Ines Rehbein, Julius Steen, Bich-Ngoc Do and Anette Frank ............................. 218

Annotating Italian Social Media Texts in Universal Dependencies

Manuela Sanguinetti, Cristina Bosco, Alessandro Mazzei, Alberto Lavelli and Fabio
Tamburini .......................................................................................................... 229

Hungarian Copula Constructions in Dependency Syntax and Parsing

Katalin Ilona Simkó and Veronika Vincze ....................................................... 240

Semgrex-Plus: a Tool for Automatic Dependency-Graph Rewriting

Fabio Tamburini ............................................................................................... 248

Unity in Diversity: a Unified Parsing Strategy for Major Indian Languages

Juhi Tandon and Dipti Misra Sharma .............................................................. 255
Quantitative Comparative Syntax on the Cantonese-Mandarin Parallel Dependency Treebank
Tak-sum Wong, Kim Gerdes, Herman Leung and John Lee ............................................... 266

Understanding Constraints on Non-Projectivity Using Novel Measures
Himanshu Yadav, Ashwini Vaidya and Samar Husain ....................................................... 276

Core Arguments in Universal Dependencies
Daniel Zeman ....................................................................................................................... 287