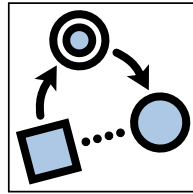


**The 12th International
Workshop
on Tree Adjoining
Grammars
and Related Formalisms
(TAG+12)**

June 29 - July 1, 2016
Heinrich Heine University
Düsseldorf, Germany

Sponsored by

DFG Deutsche
Forschungsgemeinschaft



SFB 991

Heinrich Heine
HEINRICH HEINE
UNIVERSITÄT DÜSSELDORF

Preface

Welcome to TAG+12, the 12th International Workshop on TAG and related formalisms!

The TAG+ workshop series was inaugurated in 1990 at Dagstuhl, and this year, the 12th workshop returns to Germany for the third time, to the Heinrich Heine University Düsseldorf. We received 18 submissions and accepted 12, forming what we believe is an outstanding program spanning the areas of formal language theory, theoretical syntax and semantics, discourse, and statistical grammar induction and grammar development.

ChungHye Han (Simon Fraser University) and Daniel Bauer and Owen Rambow (Columbia University) will provide tutorials on synchronous TAG semantics and graph grammars, respectively. Marco Kuhlmann and Stephen Clark will deliver keynote talks, both combining ideas from the TAG and CCG literature – Kuhlmann on the formal relationship between CCGs and TAGs, Clark on neural models for CCG supertagging and parsing.

This year seemed to us to be a time of transition, both in natural language processing as well as in the tree adjoining grammars community. As such, we have selected tutorials and invited talks that emphasize the related formalisms, while maintaining the connection to TAG. We also thought that it would be productive to set aside blocks of time for discussion using the *Open Space* format. We look forward to these discussions and hope that they will help set a course for future research directions.

We would like to express our heartfelt gratitude to everyone who helped make TAG+12 happen. We were supported by a wonderful program committee, who helped put together an excellent program. We are also deeply grateful to the local organizers, chaired by Laura Kallmeyer, who were a joy to work with, and who were sure have put together a flawlessly organized conference. This TAG+ workshop is supported by the German Science Foundation (DFG) funded CRC 991 and DFG-funded project “BeyondCFG”.

Finally we are happy to announce that primarily through the efforts of the TAG+12 publications chair, Wolfgang Maier, nearly all of the proceedings of past TAG/TAG+ workshops are being made freely available online in the ACL Anthology (aclweb.org/anthology).

We wish you an enjoyable conference!

David Chiang and Alexander Koller
TAG+12 Program Chairs

Program chairs:

David Chiang, University of Notre Dame (USA)
Alexander Koller, University of Potsdam (Germany)

Invited Speakers:

Stephen Clark, University of Cambridge (UK)
Marco Kuhlmann, Linköping University (Sweden)

Tutorial Speakers:

Chung-Hye Han, Simon Fraser University (Canada)
Daniel Bauer, Columbia University (USA)

Program committee:

Anne Abeillé, University Paris VII (France)
Srinivas Bangalore, Interactions Labs (USA)
Daniel Bauer, Columbia University (USA)
Tilman Becker, DFKI (Germany)
Rajesh Bhatt, University of Massachusetts (USA)
David Chiang, University of Notre Dame (USA)
Stephen Clark, University of Cambridge (UK)
Vera Demberg, Saarland University (UK)
Frank Drewes, Ume University (Sweden)
Robert Frank, Yale University (USA)
Claire Gardent, CNRS/LORIA, Nancy (France)
Daniel Gildea, University of Rochester (USA)
Chung-Hye Han, Simon Fraser University (Canada)
Liang Huang, Oregon State University (USA)
Aravind Joshi, University of Pennsylvania (USA)
Laura Kallmeyer, University of Düsseldorf (Germany)
Makoto Kanazawa, National Institute of Informatics (Japan)
Alexander Koller, Universität Potsdam (Germany)
Marco Kuhlmann, Linköping University (Sweden)
Adam Lopez, University of Edinburgh (UK)
Andreas Maletti, University of Stuttgart (Germany)
Yusuke Miyao, National Institute of Informatics (Japan)
Mark-Jan Nederhof, University of St. Andrews (UK)
Owen Rambow, Columbia University (USA)

Maribel Romero, University of Konstanz (Germany)
Sylvain Salvati, INRIA Bordeaux Sud-Ouest (France)
Anoop Sarkar, Simon Fraser University (Canada)
Tatjana Scheffler, University of Potsdam (Germany)
William Schuler, Ohio State University (USA)
Mark Steedman, University of Edinburgh (UK)
Matthew Stone, Rutgers University (UK)
Heiko Vogler, TU Dresden (Germany)
Bonnie Webber, University of Edinburgh (UK)
Luke Zettlemoyer, University of Washington (USA)

Local committee:

Laura Kallmeyer (chair)
Kata Balogh
Alexander Diez
Timm Lichte
Wolfgang Maier
Rainer Osswald
Simon Petitjean
Younes Samih
Christian Wurm

Table of Contents

<i>Coordination in Minimalist Grammars: Excorporation and Across the Board (Head) Movement</i> John Torr and Edward P. Stabler	1
<i>ArabTAG: from a Handcrafted to a Semi-automatically Generated TAG</i> Chérifa Ben Khelil, Denys Duchier, Yannick Parmentier, Chiraz Zribi and Fériel Ben Fraj	18
<i>Interfacing Sentential and Discourse TAG-based Grammars</i> Laurence Danlos, Aleksandre Maskharashvili and Sylvain Pogodalla	27
<i>Modelling Discourse in STAG: Subordinate Conjunctions and Attributing Phrases</i> Timothée Bernard and Laurence Danlos	38
<i>Argument linking in LTAG: A constraint-based implementation with XMG</i> Laura Kallmeyer, Timm Lichte, Rainer Oswald and Simon Petitjean	48
<i>Verbal fields in Hungarian simple sentences and infinitival clausal complements</i> Kata Balogh	58
<i>Modelling the ziji Blocking Effect and Constraining Bound Variable Derivations in MC-TAG with Delayed Locality</i> Dennis Ryan Storoshenko	67
<i>Node-based Induction of Tree-Substitution Grammars</i> Rose Sloan	77
<i>Revisiting Supertagging and Parsing: How to Use Supertags in Transition-Based Parsing</i> Wonchang Chung, Suhas Siddhesh Mhatre, Alexis Nasr, Owen Rambow and Srinivas Bangalore	85
<i>An Alternate View on Strong Lexicalization in TAG</i> Aniello De Santo, Alëna Aksënova and Thomas Graf	93
<i>Hyperedge Replacement and Nonprojective Dependency Structures</i> Daniel Bauer and Owen Rambow	103
<i>Parasitic Gaps and the Heterogeneity of Dependency Formation in STAG</i> Dennis Ryan Storoshenko and Robert Frank	112

Conference Program

Wednesday, June 29, 2016

- 9:00–9:10 *Opening* (ULB Düsseldorf 24.41)
- 9:10–10:35 **Tutorial** (ULB Düsseldorf 24.41)
Synchronizing Structure and Meaning in Tree Adjoining Grammars
Chung-Hye Han
- 10:35–11:05 *Break*
- 11:05–12:30 **Tutorial** (ULB Düsseldorf 24.41)
Beyond Strings and Trees Hyperedge Replacement Grammars for Syntax and Semantics
Daniel Bauer
- 12:30–14:00 *Lunch*
- 14:00–15:00 *Open Space setup* (ULB Düsseldorf 24.41)
- 15:00–16:00 *Open Space session 1* (26.21.01.32, 26.21.01.33, 26.21.01.34)
- 16:00–17:00 *Open Space session 2* (26.21.01.32, 26.21.01.33, 26.21.01.34)

Thursday, June 30, 2016

- 9:00–10:30 **Invited Talk** (ULB Düsseldorf 24.41)
Distant Cousins. The equivalence of TAG and CCG revisited
Marco Kuhlmann
- 10:30–11:00 *Break*
- 11:00–12:30 **Session: Syntax/Semantics** (ULB Düsseldorf 24.41)
- 11:00–11:30 *Modelling the ziji Blocking Effect and Constraining Bound Variable Derivations in MCTAG with Delayed Locality*
Dennis Ryan Storoshenko
- 11:30–12:00 *Parasitic Gaps and the Heterogeneity of Dependency Formation in STAG*
Dennis Ryan Storoshenko and Robert Frank
- 12:00–12:30 *Hyperedge Replacement and Nonprojective Dependency Structures*
Daniel Bauer and Owen Rambow
- 12:30–14:00 *Lunch*
- 14:00–15:00 **Session: Discourse** (ULB Düsseldorf 24.41)
- 14:00–14:30 *Interfacing Sentential and Discourse TAG-based Grammars*
Laurence Danlos, Aleksandre Maskharashvili and Sylvain Pogodalla
- 14:30–15:00 *Modelling Discourse in STAG: Subordinate Conjunctions and Attributing Phrases*
Timothée Bernard and Laurence Danlos
- 15:00–15:30 *Break*
- 15:30–17:00 *Open Space regrouping (ULB Düsseldorf 24.41)*
- 15:30–17:00 *Open Space session 3 (23.21.U1.91, 23.21.U1.93)*
- 17:00–18:00 *Break*
- 18:00–20:00 *Sightseeing tour*
- 20:00 *Dinner*

Friday, July 1, 2016

- 9:00–10:30 **Invited Talk** (ULB Düsseldorf 24.41)
Neural Models for CCG Parsing and Supertagging
Stephen Clark
- 10:30–11:00 *Break*
- 11:00–12:30 **Session: Grammar Induction and Parsing** (ULB Düsseldorf 24.41)
- 11:00–11:30 *Node-Based Induction of Tree-Substitution Grammars*
Rose Sloan
- 11:30–12:00 *Revisiting Supertagging and Parsing: How to Use Supertags in Transition-Based Parsing*
Wonchang Chung, Siddhesh Suhas Mhatre, Alexis Nasr, Owen Rambow and Srinivas Bangalore
- 12:00–12:30 *An Alternate View on Strong Lexicalization in TAG*
Aniello De Santo, Alëna Aksënova and Thomas Graf
- 12:30–14:00 *Lunch*
- 14:00–15:00 **Session: Grammar Development** (ULB Düsseldorf 24.41)
- 14:00–14:30 *ArabTAG: from a Handcrafted to a Semiautomatically Generated TAG*
Chérifa Ben Khelil, Denys Duchier, Yannick Parmentier, Chiraz Ben Othmane Zribi and Fériel Ben Fraj
- 14:30–15:00 *Argument linking in LTAG: A constraint based implementation with XMG*
Laura Kallmeyer, Timm Lichte, Rainer Osswald and Simon Petitjean
- 15:00–15:30 *Break*
- 15:30–16:30 **Session: Syntax** (ULB Düsseldorf 24.41)
- 15:30–16:00 *Coordination in Minimalist Grammars: Excorporation and Across the Board (Head) Movement*
John Torr and Edward Stabler
- 16:00–16:30 *Verbal fields in Hungarian simple sentences and infinitival clausal complements*
Kata Balogh
- 16:30 *Closing*

