MOL 2017

The 15th Meeting on the Mathematics of Language

Proceedings of the Conference

July 13–14, 2017
London, UK

Sponsored by

British Logic Colloquium
www.blc-logic.org

AYLIEN

Introduction

This is the proceedings of the 15th Meeting on the Mathematics of Language (MOL 2017), held at Queen Mary University of London, on July 13–14, 2017.

The volume contains eleven regular papers and two invited papers. It also includes an abstract of a third invited talk. The regular papers were selected from a total of 23 submissions, using the EasyChair conference management system.

The conference benefited from the financial support of the British Logic Colloquium (`http://www.blc-logic.org`) and of AYLIEN (`http://aylien.com`), which we gratefully acknowledge.

Last but not least, we would like to express our sincere gratitude to all the reviewers for MOL 2017 and to all the people who helped with the local organization.

Makoto Kanazawa, Philippe de Groote, and Mehrnoosh Sadrzadeh (editors)

Program Chairs:

Makoto Kanazawa, National Institute of Informatics (Japan)
Philippe de Groote, INRIA Nancy (France)

Local Chair:

Mehrnoosh Sadrzadeh, Queen Mary University of London (UK)

Local Organization:

Sophie Chesney, Queen Mary University of London (UK)
Maximilian Droog-Hayes, Queen Mary University of London (UK)
Dimitri Kartsaklis, University of Cambridge (UK)
Shalom Lappin, University of Gothenburg (Sweden)
Stephen McGregor, Queen Mary University of London (UK)
Graham White, Queen Mary University of London (UK)
Sue White, Queen Mary University of London (UK)
Gijs Jasper Wijnholds, Queen Mary University of London (UK)

Program Committee:

Henrik Björklund, Umeå University (Sweden)
David Chiang, University of Notre Dame (USA)
Alexander Clark, King's College London (UK)
Carlos Gómez-Rodríguez, University of A Coruña (Spain)
Jeffrey Heinz, University of Delaware (USA)
Gerhard Jäger, University of Tübingen (Germany)
Greg Kobele, University of Chicago (USA)
Marco Kuhlmann, Linköping University (Sweden)
Giorgio Magri, CNRS (France)
Andreas Maletti, Universität Leipzig (Germany)
Jens Michaelis, Bielefeld University (Germany)
Larry Moss, Indiana University, Bloomington (USA)
Valeria de Paiva, Nuance Communications (USA)
Gerald Penn, University of Toronto (Canada)
Carl Pollard, The Ohio State University (USA)
Jim Rogers, Earlham College (USA)
Ed Stabler, Nuance Communications (USA)
Mark Steedman, Edinburgh University (UK)
Anssi Yli-Jyrä, University of Helsinki (Finland)

Additional Reviewer:

Justin Debenedetto, University of Notre Dame (USA)

Invited Speakers:

Stephen Clark, University of Cambridge (UK)
Shay Cohen, University of Edinburgh (UK)
Frank Drewes, Umeå University (Sweden)

Table of Contents

Conference Program

Thursday, July 13

09:00-09:30   *Registration and Opening*

Session 1

09:30-10:10   *BE Is Not the Unique Homomorphism That Makes the Partee Triangle Commute*
Junri Shimada

10:10-10:50   *How Many Stemmata with Root Degree k?*
Armin Hoenen, Steffen Eger and Ralf Gehrke

10:50-11:05   *Coffee Break*

Session 2

11:05-11:45   *On the Logical Complexity of Autosegmental Representations*
Adam Jardine

11:45-12:25   *Extracting Forbidden Factors from Regular Stringsets*
James Rogers and Dakotah Lambert

12:25-14:10   *Lunch*

14:10-14:30   *S.-Y. Kuroda Prize Ceremony*

14:30-14:35   *Break*

Thursday, July 13 (continued)

        Session 3: Invited Talk

14:35-15:35   *Latent-Variable PCFGs: Background and Applications*
                Shay Cohen

15:35-15:50   *Coffee Break*

        Session 4

15:50-16:30   *A Proof-Theoretic Semantics for Transitive Verbs with an Implicit Object*
                Nissim Francez

16:30-17:10   *Why We Speak*
                Rohit Parikh

17:10-17:50   *A Monotonicity Calculus and Its Completeness*
                Thomas Icard, Lawrence Moss and William Tune

19:00-   *Conference Dinner at QMUL Octagon*

Friday, July 14

Friday, July 14 (continued)

Session 5: Invited Talk

09:30-10:30   *DAG Automata for Meaning Representation*
Frank Drewes

10:30-10:45   *Coffee Break*

Session 6

10:45-11:25   *(Re)introducing Regular Graph Languages*
Sorcha Gilroy, Adam Lopez, Sebastian Maneth and Pijus Simonaitis

11:25-12:05   *Graph Transductions and Typological Gaps in Morphological Paradigms*
Thomas Graf

12:05-13:50   *Lunch*

13:50-14:30   *Business Meeting*

14:30-14:35   *Break*

Friday, July 14 (continued)

Session 7: Invited Talk

14:35-15:35   *Introducing Structure into Neural Network-Based Semantic Models*
Stephen Clark

15:35-15:50   *Coffee Break*

Session 8

15:50-16:30   *Count-Invariance Including Exponentials*
Stepan Kuznetsov, Glyn Morrill and Oriol Valentín

16:30-17:10   *Conjunctive Categorial Grammars*
Stepan Kuznetsov and Alexander Okhotin

17:10   *Closing*