TAG+6

Proceedings of the Sixth International Workshop on Tree Adjoining Grammars and Related Frameworks

Universitá di Venezia
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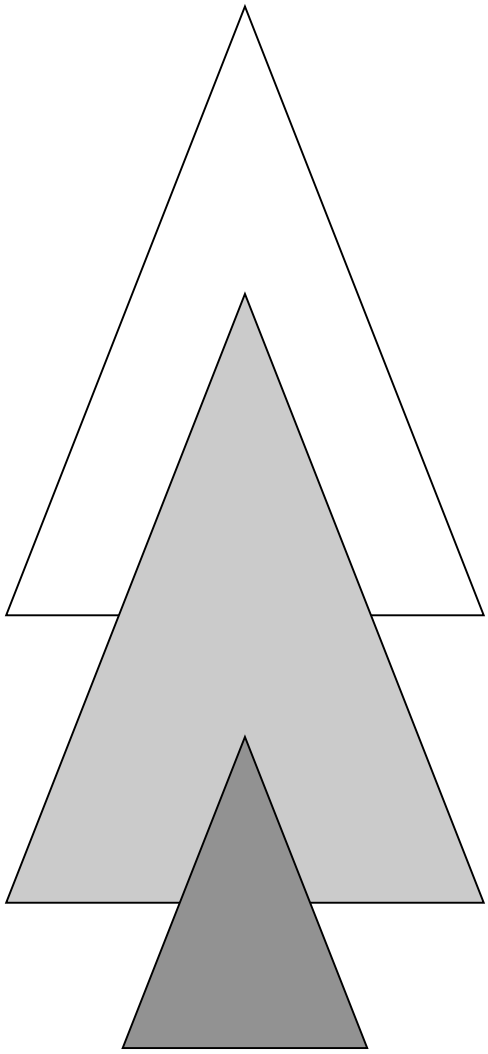

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Preface

The papers collected in this volume were presented at the Sixth International Workshop on Tree Adjoining Grammars and Related Frameworks (TAG+6), held at the University of Venice in May 2002. Previous TAG workshops took place at Schloß Dagstuhl (1990), at the University of Pennsylvania (1992, 1998), and at the University of Paris 7 (1994, 2000).

The Tree Adjoining Grammar (TAG) formalism has been studied for some time, both for its mathematical properties and computational applications, as well as for its role in constructing grammatical theories and models of language processing. Over the years, these lines of inquiry have fed off of one another: empirical consequences have been derived from TAG's mathematical restrictiveness, and extensions to the TAG formalism have been motivated by the exigencies of grammatical analysis. One of the main goals of TAG+6 was to bring together the full range of researchers interested in the TAG formalism, continuing the productive interactions that have been the hallmark of TAG research. The success of the meeting can be judged by the range of topics explored by the papers collected here, including linguistic theory, mathematical properties of grammar formalisms, computational and algorithmic studies of parsing and generation, psycholinguistic modeling, and applications to natural language processing systems.

It has been observed for some time that a range of grammatical frameworks, for example minimalist syntax, categorial grammar, dependency grammars, HPSG, and LFG, share with TAG a number of significant properties, including the lexicalization of syntactic structure, a conception of syntactic derivation rooted in generalized transformations, a simple notion of locality for grammatical dependencies, and mildly context sensitive generative capacity. A second main goal of TAG+6, and the reason for the '+' in the workshop's name, was to better understand the connections between TAG and other related grammatical frameworks. Such connections are explored in a number of the papers in this volume. In addition to these contributed papers, interframework connections were further elucidated during the workshop by three invited speakers each representing a different grammatical framework: Joan Bresnan, Guglielmo Cinque, and Jan Hajič. Hajič's contribution is preserved here in written form.

This workshop would not have been possible without the hard work of the program committee and the organizing committee. Members of the program committee were Anne Abeillé, William Badecker, Srinivas Bangalore, Tilman Becker, Tonia Bleam, Mark Dras, Fernanda Ferreira, Claire Gardent, Anthony Kroch, Seth Kulick, David Lebeaux, Larry Moss, Gertjan van Noord, Richard Oehrle, Martha Palmer, Owen Rambow, Norvin Richards, James Rogers, Ed Stabler, Mark Steedman, Yuka Tateisi, Juan Uriagereka, K. Vijay-Shanker, and David Weir. The organizing committee consisted of Rodolfo Delmonte and Giorgio Satta (co-chairs), Julia Akhramovitch, Antonella Bristot, David Chiang, Aravind K. Joshi, Alberto Lavelli, Carlo Minnaja, Laura Paccagnella, Luisella Romeo, Anoop Sarkar, and Trisha Yannuzzi. My gratitude to all for their excellent work. A special thanks to Trisha for her gift of her vast experience and for her herculean efforts at a number of crucial points in the process.

Finally, I would like to thank the University of Padua, the University of Venice, the Institute for Research in Cognitive Science at the University of Pennsylvania, and the Institute for Scientific and Technological Research (ITC-IRST) for their financial support.

Robert Frank
Program Chair

Conference Program

Monday, May 20

4:00-4:15 Presentation of the Conference

4:15-4:45 *Compositional Semantics for Relative Clauses in Lexicalized Tree Adjoining Grammars*
Chung-Hye Han

4:45-5:30 *Putting Some Weakly Context-Free Formalisms in Order*
David Chiang

5:30-6:00 *Supertagging for Combinatory Categorial Grammar*
Stephen Clark

Tuesday, May 21

9:30-10:00 *Learning languages from positive examples with dependencies*
Jérôme Besombes and Jean-Yves Marion

10:00-10:45 *Towards a Dynamic Version of TAG*
Vincenzo Lombardo and Patrick Sturt

10:45-11:15 *Resumptive Pronouns, Wh-island Violations, and Sentence Production*
Cassandra Creswell

11:15-11:45 Coffee Break

11:45-12:15 *Statistical Morphological Tagging and Parsing of Korean with an LTAG Grammar*
Anoop Sarkar and Chung-Hye Han

12:15-1:15 **Invited Lecture**
Hard and Soft Constraints in Syntax:
An Approach to Person/Voice Interactions in Stochastic Optimality Theory
Joan Bresnan

1:15-3:00 Lunch

3:00-3:30 *Notes on the Complexity of Complex Heads in a Minimalist Grammar*
Jens Michaelis

3:30-4:00 *Learning Mirror Theory*
Gregory M. Kobele, Travis Collier, Charles Taylor and Edward Stabler

4:00-5:00 **Poster Session**

Defining a Lexicalized Context-Free Grammar for a Subdomain of Portuguese Language
Cinthyan Renata Sachs C. de Barbosa, Davidson Cury, José Mauro Volkmer de Castilho and Celso de Renna Souza

Practical, Template-Based Natural Language Generation with TAG
Tilman Becker

Relative Clause Attachment and Anaphora: A Case for Short Binding
Rodolfo Delmonte

A Left Corner Parser for Tree Adjoining Grammars
Victor J. Diaz, Vicente Carrillo and Miguel A. Alonso

Context-Free Parsing of a Tree Adjoining Grammar Using Finite-State Machines
Alexis Nasr, Owen Rambow, John Chen and Srinivas Bangalore

How to Prevent Adjoining in TAGs and its Impact on the Average Case Complexity
Jens Woch

5:00-5:30 *Quantification Over Possible Worlds in LTAG: Some Constraints*
Maribel Romero

5:30-6:00 *One More Perspective on Semantic Relations in TAG*
James Rogers

6:00-6:30 *Using an Enriched TAG Derivation Structure as Basis for Semantics*
Laura Kallmeyer

8:00- Banquet at *Al Gatto Nero*, Burano
Departure at 7:00 from Fondamente Nuove

Wednesday, May 23

9:30-10:00 *A Proof System for Tree Adjoining Grammars*
Adi Palm

10:00-10:30 *Tree-Adjoining Grammars as Abstract Categorial Grammars*
Philippe de Groote

10:30-11:00 *Residuation, Structural Rules, and Context Freeness*
Gerhard Jäger

11:00-12:00 **Poster Session**

A Note on the Complexity of Associative-Commutative Lambek Calculus
Christophe Costa Florêncio

Turning Elementary Trees into Feature Structures
Alexandra Kinyon

On the Affinity of TAG with Projective, Bilexical Dependency Grammar
Tom B.Y. Lai, Changning Huang and Robert W.P. Luk

The Theory of Control Applied to the Prague Dependency Treebank (PDT)
Jarmila Panevová, Veronika Řezníčková and Zdeňka Urešová

Systematic Grammar Development in the XTAG Project
Carlos Prolo

A Formal Proof of Strong Equivalence for a Grammar Conversion from LTAG to HPSG-style
Naoki Yoshinaga, Yusuke Miyao and Jun'ichi Tsujii

12:00-12:30 *Parsing MCS languages with Thread Automata*
Éric Villemonte de la Clergerie

12:30-1:00 *Evaluation of LTAG Parsing with Supertag Compaction*
Olga Shaumyan, John Carroll and David Weir

1:00-3:00 Lunch

3:00-3:30 *Korean-English MT and S-TAG*
Mark Dras and Chung-Hye Han

3:30-4:30 **Invited Lecture**

Tectogrammatical Representation: Towards a Minimal Transfer in Machine Translation
Jan Hajič

4:30-5:00 Coffee Break

5:00-5:30 *Clustering for Obtaining Syntactic Classes of Words from Automatically Extracted LTAG Grammars*
Tadayoshi Hara, Yusike Miyao and Jun'ichi Tsujii

5:30-6:00 *A New Metagrammar Compiler*
B. Gaiffe, B. Craibbé and A. Roussanaly

6:00-6:30 *DTAG?*
Kim Gerdes

Thursday, May 24

10:00-11:00 **Invited Lecture**
Complement and Adverbial PPs: Implications for Clause Structure
Guglielmo Cinque

11:00-11:30 Coffee Break

11:30-12:15 *Cross-Serial Dependencies in Tagalog*
Anna Maclachlan and Owen Rambow

12:15-12:45 *Reranking an N-Gram Supertagger*
John Chen, Srinivas Bangalore, Michael Collins and Owen Rambow

12:45-1:15 *Hidden Markov Model-based Supertagging in a User-Initiative Dialogue System*
Jens Bäcker and Karin Harbusch

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