ACL 2007

PRAGUE

# ACL 2007

## Proceedings of the Workshop on Grammar-based approaches to spoken language processing

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The Association for Computational Linguistics

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# Preface

Even though the statistical paradigm is dominant in research on spoken language processing, grammar based approaches are used to a great extent in industry and are also a popular choice for building command and control applications. They are particularly useful in situations where there is a lack of appropriate training data for particular domains, or even in some cases for the language as a whole, and when it is important to encode global structural constraints. Several platforms are now available that support construction of grammar-based spoken dialogue systems, including SRI's Gemini, NASA and Geneva University's Regulus and Chalmers and Gothenburg University's GF, and a variety of substantial applications have been built using these tools.

This workshop will provide an opportunity for researchers in this area to present results, compare systems and exchange practical experience in grammar based development for spoken language understanding systems.

# Organizers

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Pierrette Bouillon (Geneva University)
Manny Rayner (Powerset Inc and Geneva University)

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Manny Rayner (Powerset/U Geneva)
Ye-Yi Wang (Microsoft)

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# Conference Program

**Wednesday, June 29, 2005**

**Session 1: Overview Talks**

9:30–9:45 Opening Remarks

9:45–10:15 Aarne Ranta: An Overview of GF

10:15–10:45 Manny Rayner: An Overview of Regulus

10:45–11:15 Break

**Session 2: GF**

11:15–11:40 *Speech Recognition Grammar Compilation in Grammatical Framework*
Björn Bringert

11:40–12:05 *Converting Grammatical Framework to Regulus*
Peter Ljunglöf

12:05–12:30 *Dialogue System Localization with the GF Resource Grammar Library*
Nadine Perera and Aarne Ranta

12:30–14:30 Lunch

**Session 3: Grammar-based vs statistical approaches AND applications**

14:30–14:55 *Grammar-based context-specific statistical language modelling*
Rebecca Jonson

14:55–15:20 *Handling Out-of-Grammar Commands in Mobile Speech Interaction Using Backoff Filler Models*
Tim Paek, Sudeep Gandhe, Max Chickering and Yun Cheng Ju

15:20–15:45 *A Bidirectional Grammar-Based Medical Speech Translator*
Pierrette Bouillon, Glenn Flores, Marianne Starlander, Nikos Chatzichrisafis, Marianne Santaholma, Nikos Tsourakis, Manny Rayner and Beth Ann Hockey

**Wednesday, June 29, 2005 (continued)**

15:45–16:15 Break

**Session 4: Demos and panel**

16:15–17:30 Demos

*A Development Environment for Building Grammar-Based Speech-Enabled Applications*
Elisabeth Kron, Manny Rayner, Marianne Santaholma and Pierrette Bouillon

Björn Bringert: Generation of speech grammar formats from GF

Pierrette Bouillon and Manny Rayner: The MedSLT medical speech translator

Nadine Perera: Using GF resource grammars

17:30–18:15 Panel discussion