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of the
Association for
Computational Linguistics**

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Tel: +1-732-342-9100
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Preface: General Chair

When I asked what General Chairs are supposed to worry about, the main advice I got was this: Make sure the Program Co-Chairs are in the same time zone. Well, what's fun about that? Between Istanbul, Singapore, and Los Angeles, we could easily solve problems in real time; by the time Kemal arrived at the office after breakfast, Hwee Tou was just back from lunch, and I was done carrying out the late-night raid on my own refrigerator. No problem.

I'd like to start by thanking everyone who submitted research work to ACL-05. I'd especially like to thank researchers new to the field – this is a great time to be in computational linguistics. Excellent research is one of the Two Critical Ingredients of a successful ACL conference.

Program Co-Chairs **Hwee Tou Ng** and **Kemal Oflazer** deserve our gratitude for putting an immense amount of work into the main session program. They and the Area Chairs got a large number of submissions this year, and the program is diverse and exciting. Thanks also to **Erika Barragan-Nunez** for arranging the program committee meeting in California.

Stefan Riezler assembled a program of five excellent tutorials to begin the meeting, and **Mirella Lapata** organized the workshop program, assisted by **Mark Dras**, **Mary Harper**, **Dan Klein**, and **Shuly Winter**. **Masaaki Nagata** and **Ted Pedersen** put together a high-quality demo session, including software systems from all over the world.

Jason Eisner and **Philipp Koehn** put in a tremendous amount of thought, effort, and persistence into publications. Each time ACL doubles the number of papers, the work way more than doubles. **Mark Johnson**, as sponsorship chair, requested that the money be shown to him (and it was!), so thanks very much to the sponsors, and to Mark. **Richard Wicentowski** took on two chair roles – exhibits and publicity – the latter of which included writing the useful ACL-05 newsletters forwarded by ubiquitous **Priscilla Rasmussen**.

Regina Barzilay, **Chris Callison-Burch** and **Stephen Wan** organized the Student Research Workshop (and thanks again to all the students who submitted their research). **Richard Power** graciously agreed to do pre-submission mentoring for authors. The ACL Executive Committee provided help on a number of issues and responded quickly to questions – thank you, **Martha Palmer**, **Jun'ichi Tsujii**, **Mark Steedman**, **Kathy McCoy**, **Sandee Carberry**, **Johanna Moore**, **Priscilla Rasmussen**, **Annie Zaenen**, **Walter Daelemans**, and **Keh-Yih Su**.

Dragomir Radev went far beyond the call of duty as Local Arrangements Chair. He raised and solved lots of strategic issues, followed up on every wire and cable, and cajoled other ACL chairs into solving important problems fast. I believe he may even be responsible for the weather and for making sure your luggage arrived on the same day you did. Thanks to the whole local team: **Rich Thomason**, **Steve Abney**, **Joyce Chai**, **San Duanmu**, **Kurt Godden**, **Acrisio Pires**, **Martha Pollack**, **Keith van der Linden**, **Rick Lewis**, **Sara Schwartz**, and **Bill Vlisides**, and to **James Sweeney**, who served as the conference webmaster. On behalf of Dragomir, please let me thank the University of Michigan's School of Information, Department of Electrical Engineering and Computer Science, and Department of Linguistics for their support. Dragomir also arranged the banquet at the Henry Ford Museum, where ACL President **Martha Palmer** will no doubt make an excellent speech – that's of course the Other Critical Ingredient of a successful ACL.

Finally, I'd also like to thank all the other folks who helped create ACL-05, including student volunteers, exhibitors, tutorialists, and everyone else not listed here.

To ACL attendees: thanks for coming, and please have a good conference!

Kevin Knight
ACL-05 General Chair
May 9, 2005

Preface: Program Co-Chairs

Exciting research in computational linguistics is being pursued vigorously all over the world. This year, we received a record number of 423 submissions. The program committee accepted 77 papers, for an acceptance rate of 18%, continuing the tradition of the annual ACL conference as being one of the most competitive and selective conferences. Of the accepted papers, 42 are from North America, 18 from Europe and the Middle East, and 17 from Asia and Australia.

We would like to express our heartfelt gratitude to all the authors who submitted their papers, to the 231 program committee members who worked tirelessly to review all submissions, and to the ten Area Chairs who oversaw the review process, collated the reviews, led discussions on papers with conflicting reviews, and solicited additional reviews for controversial papers. The Program Committee Co-Chairs and the area chairs then met for two days at the program committee meeting held at USC/ISI to select the final set of accepted papers. We would like to thank **Kevin Knight**, the General Conference Chair, who made available USC/ISI as the meeting venue, and his assistant **Erika Barragan-Nunez** who took care of the meeting arrangements and logistics.

The ACL-05 main program lasts three days, and includes plenary sessions, three parallel paper sessions, demo and poster sessions, and the student research workshop. We are grateful to Professor **Justine Cassell** (Northwestern University) and Professor **Michael Jordan** (University of California, Berkeley) who have kindly accepted our invitation to present invited talks at the conference.

The ACL-05 conference will also feature the ACL Lifetime Achievement Award. This prestigious award is presented to a most distinguished researcher for his or her pioneering work in computational linguistics. Past distinguished recipients of this award are **Aravind Joshi**, **Makoto Nagao**, and **Karen Spärck-Jones**. The recipient of this award in 2005 will be announced at a special plenary session at ACL-05, followed by a special lecture by the award recipient. ACL-05 will also continue the tradition of presenting the Best Paper Award to an outstanding paper. This award will be announced in the plenary session at the end of the conference.

A conference like ACL would not succeed without the many volunteers who offer their generous help. We deeply appreciate the advice and support of **Kevin Knight**, General Conference Chair, **Dragomir Radev**, Local Arrangements Chair, and the Local Arrangements Committee. We are also grateful to the ACL Executive Committee for their guidance, and **Walter Daelemans** and **Marilyn Walker**, ACL-04 Program Co-Chairs, for sharing their experience. We would also like to thank **Jason Eisner** and **Philipp Koehn**, Publication Co-Chairs, for putting together the proceedings of this conference.

We wish you an enjoyable time at ACL-05!

Hwee Tou Ng and Kemal Oflazer
ACL-05 Program Co-Chairs
May 12, 2005

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Conference Program

Sunday, June 26, 2005

8:45–9:00 Opening

9:00–10:00 Invited Talk by Justine Cassell

10:00–10:30 Break

Session M1R: Machine Learning and Statistical Models

10:30–11:00 *A High-Performance Semi-Supervised Learning Method for Text Chunking*
Rie Ando and Tong Zhang

11:00–11:30 *Scaling Conditional Random Fields Using Error-Correcting Codes*
Trevor Cohn, Andrew Smith and Miles Osborne

11:30–12:00 *Logarithmic Opinion Pools for Conditional Random Fields*
Andrew Smith, Trevor Cohn and Miles Osborne

Session M1M: Word Sense Disambiguation

10:30–11:00 *Supersense Tagging of Unknown Nouns using Semantic Similarity*
James Curran

11:00–11:30 *Learning Semantic Classes for Word Sense Disambiguation*
Upali Sathyajith Kohomban and Wee Sun Lee

11:30–12:00 *The Role of Semantic Roles in Disambiguating Verb Senses*
Hoa Trang Dang and Martha Palmer

Sunday, June 26, 2005 (continued)

Session M1B: Generation

- 10:30–11:00 *Aggregation Improves Learning: Experiments in Natural Language Generation for Intelligent Tutoring Systems*
Barbara Di Eugenio, Davide Fossati, Dan Yu, Susan Haller and Michael Glass
- 11:00–11:30 *Empirically-based Control of Natural Language Generation*
Daniel S. Paiva and Roger Evans
- 11:30–12:00 *Towards Developing Generation Algorithms for Text-to-Text Applications*
Radu Soricut and Daniel Marcu
- 12:00–1:30 Lunch

Session M2R: Parsing

- 1:30–2:00 *Probabilistic CFG with Latent Annotations*
Takuya Matsuzaki, Yusuke Miyao and Jun'ichi Tsujii
- 2:00–2:30 *Probabilistic Disambiguation Models for Wide-Coverage HPSG Parsing*
Yusuke Miyao and Jun'ichi Tsujii
- 2:30–3:00 *Online Large-Margin Training of Dependency Parsers*
Ryan McDonald, Koby Crammer and Fernando Pereira
- 3:00–3:30 *Pseudo-Projective Dependency Parsing*
Joakim Nivre and Jens Nilsson

Sunday, June 26, 2005 (continued)

Session M2M: Semantics

- 1:30–2:00 *The Distributional Inclusion Hypotheses and Lexical Entailment*
Maayan Geffet and Ido Dagan
- 2:00–2:30 *Seeing Stars: Exploiting Class Relationships for Sentiment Categorization with Respect to Rating Scales*
Bo Pang and Lillian Lee
- 2:30–3:00 *Inducing Ontological Co-occurrence Vectors*
Patrick Pantel
- 3:00–3:30 *Extracting Semantic Orientations of Words using Spin Model*
Hiroya Takamura, Takashi Inui and Manabu Okumura

Session M2B: Discourse

- 1:30–2:00 *Modeling Local Coherence: An Entity-Based Approach*
Regina Barzilay and Mirella Lapata
- 2:00–2:30 *Modelling the Substitutability of Discourse Connectives*
Ben Hutchinson
- 2:30–3:00 *Machine Learning for Coreference Resolution: From Local Classification to Global Ranking*
Vincent Ng
- 3:00–3:30 *Improving Pronoun Resolution Using Statistics-Based Semantic Compatibility Information*
Xiaofeng Yang, Jian Su and Chew Lim Tan
- 3:30–4:00 Break

Sunday, June 26, 2005 (continued)

Session M3R: Parsing

- 4:00–4:30 *Coarse-to-Fine n-Best Parsing and MaxEnt Discriminative Reranking*
Eugene Charniak and Mark Johnson
- 4:30–5:00 *Data-Defined Kernels for Parse Reranking Derived from Probabilistic Models*
James Henderson and Ivan Titov
- 5:00–5:30 *Boosting-based Parse Reranking with Subtree Features*
Taku Kudo, Jun Suzuki and Hideki Isozaki
- 5:30–6:00 *Automatic Measurement of Syntactic Development in Child Language*
Kenji Sagae, Alon Lavie and Brian MacWhinney

Session M3M: Question Answering

- 4:00–4:30 *Experiments with Interactive Question-Answering*
Sanda Harabagiu, Andrew Hickl, John Lehmann and Dan Moldovan
- 4:30–5:00 *Question Answering as Question-Biased Term Extraction: A New Approach toward Multilingual QA*
Yutaka Sasaki

Session M3B: Discourse and Dialogue

- 4:00–4:30 *Exploring and Exploiting the Limited Utility of Captions in Recognizing Intention in Information Graphics*
Stephanie Elzer, Sandra Carberry, Daniel Chester, Seniz Demir, Nancy Green, Ingrid Zukerman and Keith Trnka
- 4:30–5:00 *Scaling up from Dialogue to Multilogue: Some Principles and Benchmarks*
Jonathan Ginzburg and Raquel Fernández
- 5:00–5:30 *Implications for Generating Clarification Requests in Task-Oriented Dialogues*
Verena Rieser and Johanna Moore
- 5:30–6:00 *Towards Finding and Fixing Fragments - Using ML to Identify Non-Sentential Utterances and their Antecedents in Multi-Party Dialogue*
David Schlangen

Monday, June 27, 2005

Session M4R: Machine Translation

- 9:00–9:30 *Scaling Phrase-Based Statistical Machine Translation to Larger Corpora and Longer Phrases*
Chris Callison-Burch, Colin Bannard and Josh Schroeder
- 9:30–10:00 *A Hierarchical Phrase-Based Model for Statistical Machine Translation*
David Chiang
- 10:00–10:30 *Dependency Treelet Translation: Syntactically Informed Phrasal SMT*
Chris Quirk, Arul Menezes and Colin Cherry

Session M4M: Summarization

- 9:00–9:30 *QARLA: A Framework for the Evaluation of Text Summarization Systems*
Enrique Amigó, Julio Gonzalo, Anselmo Peñas and Felisa Verdejo
- 9:30–10:00 *Supervised and Unsupervised Learning for Sentence Compression*
Jenine Turner and Eugene Charniak
- 10:00–10:30 *Digesting Virtual "Geek" Culture: The Summarization of Technical Internet Relay Chats*
Liang Zhou and Eduard Hovy
- 10:30–11:00 Break
- 11:00–12:00 Lifetime Achievement Award and Talk
- 12:00–1:30 Lunch
- 1:30–2:30 ACL Business Meeting

Monday, June 27, 2005 (continued)

Session M5R: Parsing

- 2:30–3:00 *Lexicalization in Crosslinguistic Probabilistic Parsing: The Case of French*
Abhishek Arun and Frank Keller
- 3:00–3:30 *What to do when Lexicalization Fails: Parsing German with Suffix Analysis and Smoothing*
Amit Dubey

Session M5M: Corpus Annotation

- 2:30–3:00 *Detecting Errors in Discontinuous Structural Annotation*
Markus Dickinson and W. Detmar Meurers
- 3:00–3:30 *High Precision Treebanking — Blazing Useful Trees Using POS Information*
Takaaki Tanaka, Francis Bond, Stephan Oepen and Sanae Fujita
- 3:30–4:00 Break

Session M6R: Machine Learning and Statistical Methods

- 4:00–4:30 *A Dynamic Bayesian Framework to Model Context and Memory in Edit Distance Learning: An Application to Pronunciation Classification*
Karim Filali and Jeff Bilmes
- 4:30–5:00 *Learning Stochastic OT Grammars: A Bayesian Approach using Data Augmentation and Gibbs Sampling*
Ying Lin
- 5:00–5:30 *Contrastive Estimation: Training Log-Linear Models on Unlabeled Data*
Noah A. Smith and Jason Eisner

Monday, June 27, 2005 (continued)

Session M6M: Information Extraction

- 4:00–4:30 *Incorporating Non-local Information into Information Extraction Systems by Gibbs Sampling*
Jenny Rose Finkel, Trond Grenager and Christopher Manning
- 4:30–5:00 *Unsupervised Learning of Field Segmentation Models for Information Extraction*
Trond Grenager, Dan Klein and Christopher Manning
- 5:00–5:30 *A Semantic Approach to IE Pattern Induction*
Mark Stevenson and Mark Greenwood

Tuesday, June 28, 2005

Session M7R: Word Sense Disambiguation

- 9:00–9:30 *Word Sense Disambiguation vs. Statistical Machine Translation*
Marine Carpuat and Dekai Wu
- 9:30–10:00 *Word Sense Disambiguation Using Label Propagation Based Semi-Supervised Learning*
Zheng-Yu Niu, Dong-Hong Ji and Chew Lim Tan
- 10:00–10:30 *Domain Kernels for Word Sense Disambiguation*
Alfio Gliozzo, Claudio Giuliano and Carlo Strapparava

Session M7M: Information Extraction

- 9:00–9:30 *Improving Name Tagging by Reference Resolution and Relation Detection*
Heng Ji and Ralph Grishman
- 9:30–10:00 *Extracting Relations with Integrated Information Using Kernel Methods*
Shubin Zhao and Ralph Grishman
- 10:00–10:30 *Exploring Various Knowledge in Relation Extraction*
GuoDong Zhou, Jian Su, Jie Zhang and Min Zhang

Tuesday, June 28, 2005 (continued)

Session M7B: Speech Processing

- 9:00–9:30 *A Quantitative Analysis of Lexical Differences Between Genders in Telephone Conversations*
Constantinos Boulis and Mari Ostendorf
- 9:30–10:00 *Position Specific Posterior Lattices for Indexing Speech*
Ciprian Chelba and Alex Acero
- 10:00–10:30 *Using Conditional Random Fields for Sentence Boundary Detection in Speech*
Yang Liu, Andreas Stolcke, Elizabeth Shriberg and Mary Harper
- 10:30–11:00 Break
- 11:00–12:00 Invited Talk by Michael Jordan
- 12:00–1:30 Lunch

Session M8R: Machine Translation

- 1:30–2:00 *Log-linear Models for Word Alignment*
Yang Liu, Qun Liu and Shouxun Lin
- 2:00–2:30 *Alignment Model Adaptation for Domain-Specific Word Alignment*
Hua Wu, Haifeng Wang and Zhanyi Liu
- 2:30–3:00 *Stochastic Lexicalized Inversion Transduction Grammar for Alignment*
Hao Zhang and Daniel Gildea

Tuesday, June 28, 2005 (continued)

Session M8M: Information Extraction

- 1:30–2:00 *Multi-Field Information Extraction and Cross-Document Fusion*
Gideon Mann and David Yarowsky
- 2:00–2:30 *Simple Algorithms for Complex Relation Extraction with Applications to Biomedical IE*
Ryan McDonald, Fernando Pereira, Seth Kulick, Scott Winters, Yang Jin and Pete White
- 2:30–3:00 *Resume Information Extraction with Cascaded Hybrid Model*
Kun Yu, Gang Guan and Ming Zhou

Session M8B: Speech and Language Modeling

- 1:30–2:00 *Discriminative Syntactic Language Modeling for Speech Recognition*
Michael Collins, Brian Roark and Murat Saraclar
- 2:00–2:30 *A Phonotactic Language Model for Spoken Language Identification*
Haizhou Li and Bin Ma
- 2:30–3:00 *Reading Level Assessment Using Support Vector Machines and Statistical Language Models*
Sarah Schwarm and Mari Ostendorf
- 3:00–3:30 Break

Session M9R: Machine Translation

- 3:30–4:00 *Clause Restructuring for Statistical Machine Translation*
Michael Collins, Philipp Koehn and Ivona Kucerova
- 4:00–4:30 *Machine Translation Using Probabilistic Synchronous Dependency Insertion Grammars*
Yuan Ding and Martha Palmer
- 4:30–5:00 *Context-Dependent SMT Model using Bilingual Verb-Noun Collocation*
Young-Sook Hwang and Yutaka Sasaki
- 5:00–5:30 *A Localized Prediction Model for Statistical Machine Translation*
Christoph Tillmann and Tong Zhang

Tuesday, June 28, 2005 (continued)

Session M9M: Segmentation, Tagging, and Semantic Role Labeling

- 3:30–4:00 *Instance-based Sentence Boundary Determination by Optimization for Natural Language Generation*
Shimei Pan and James Shaw
- 4:00–4:30 *Arabic Tokenization, Part-of-Speech Tagging and Morphological Disambiguation in One Fell Swoop*
Nizar Habash and Owen Rambow
- 4:30–5:00 *Semantic Role Labeling Using Different Syntactic Views*
Sameer Pradhan, Wayne Ward, Kadri Hacioglu, James Martin and Daniel Jurafsky
- 5:00–5:30 *Joint Learning Improves Semantic Role Labeling*
Kristina Toutanova, Aria Haghighi and Christopher Manning

Session M9B: Lexical Acquisition from Corpora

- 3:30–4:00 *Paraphrasing with Bilingual Parallel Corpora*
Colin Bannard and Chris Callison-Burch
- 4:00–4:30 *A Nonparametric Method for Extraction of Candidate Phrasal Terms*
Paul Deane
- 4:30–5:00 *Automatic Acquisition of Adjectival Subcategorization from Corpora*
Jeremy Yallop, Anna Korhonen and Ted Briscoe
- 5:00–5:30 *Randomized Algorithms and NLP: Using Locality Sensitive Hash Functions for High Speed Noun Clustering*
Deepak Ravichandran, Patrick Pantel and Eduard Hovy
- 5:30–5:45 Best Paper Award and Closing