

# **12th Conference of the European Chapter of the Association for Computational Linguistics 2009**

## **(EACL 2009)**

**Athens, Greece  
30 March - 3 April 2009**

**ISBN: 978-1-63266-013-8**

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2009) by the Association for Computational Linguistics  
All rights reserved.

Printed by Curran Associates, Inc. (2014)

For permission requests, please contact the Association for Computational Linguistics  
at the address below.

Association for Computational Linguistics  
209 N. Eighth Street  
Stroudsburg, Pennsylvania 18360

Phone: 1-570-476-8006  
Fax: 1-570-476-0860

[acl@aclweb.org](mailto:acl@aclweb.org)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2634  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

## Table of Contents

<i>Invited Talk: Slacker Semantics: Why Superficiality, Dependency and Avoidance of Commitment can be the Right Way to Go</i>	
Ann Copestake .....	1
<i>Invited Talk: NLP and the Humanities: The Revival of an Old Liaison</i>	
Francisca de Jong .....	10
<i>On the Use of Comparable Corpora to Improve SMT performance</i>	
Sadaf Abdul-Rauf and Holger Schwenk .....	16
<i>Contextual Phrase-Level Polarity Analysis Using Lexical Affect Scoring and Syntactic N-Grams</i>	
Apoorv Agarwal, Fadi Biadsy and Kathleen McKeown .....	24
<i>Personalizing PageRank for Word Sense Disambiguation</i>	
Eneko Agirre and Aitor Soroa .....	33
<i>Supervised Domain Adaption for WSD</i>	
Eneko Agirre and Oier Lopez de Lacalle .....	42
<i>Clique-Based Clustering for Improving Named Entity Recognition Systems</i>	
Julien Ah-Pine and Guillaume Jacquet .....	51
<i>Correcting Automatic Translations through Collaborations between MT and Monolingual Target-Language Users</i>	
Joshua Albrecht, Rebecca Hwa and G. Elisabeta Marai .....	60
<i>Incremental Parsing with Parallel Multiple Context-Free Grammars</i>	
Krasimir Angelov .....	69
<i>Data-Driven Semantic Analysis for Multilingual WSD and Lexical Selection in Translation</i>	
Marianna Apidianaki .....	77
<i>Syntactic Phrase Reordering for English-to-Arabic Statistical Machine Translation</i>	
Ibrahim Badr, Rabih Zbib and James Glass .....	86
<i>Incremental Parsing Models for Dialog Task Structure</i>	
Srinivas Bangalore and Amanda Stent .....	94
<i>Bayesian Word Sense Induction</i>	
Samuel Brody and Mirella Lapata .....	103
<i>Human Evaluation of a German Surface Realisation Ranker</i>	
Aoife Cahill and Martin Forst .....	112
<i>Large-Coverage Root Lexicon Extraction for Hindi</i>	
Cohan Sujay Carlos, Monojit Choudhury and Sandipan Dandapat .....	121
<i>Lexical Morphology in Machine Translation: A Feasibility Study</i>	
Bruno Cartoni .....	130
<i>Predicting the Fluency of Text with Shallow Structural Features: Case Studies of Machine Translation and Human-Written Text</i>	
Jieun Chae and Ani Nenkova .....	139

<i>EM Works for Pronoun Anaphora Resolution</i>	148
Eugene Charniak and Micha Elsner .....	
<i>Web Augmentation of Language Models for Continuous Speech Recognition of SMS Text Messages</i>	157
Mathias Creutz, Sami Virpioja and Anna Kovaleva .....	
<i>An Alignment Algorithm Using Belief Propagation and a Structure-Based Distortion Model</i>	166
Fabien Cromierès and Sadao Kurohashi .....	
<i>Translation and Extension of Concepts Across Languages</i>	175
Dmitry Davidov and Ari Rappoport .....	
<i>Learning to Interpret Utterances Using Dialogue History</i>	184
David DeVault and Matthew Stone .....	
<i>Correcting Dependency Annotation Errors</i>	193
Markus Dickinson .....	
<i>Re-Ranking Models for Spoken Language Understanding</i>	202
Marco Dinarelli, Alessandro Moschitti and Giuseppe Riccardi .....	
<i>Inference Rules and their Application to Recognizing Textual Entailment</i>	211
Georgiana Dinu and Rui Wang .....	
<i>Semi-Supervised Semantic Role Labeling</i>	220
Hagen Fürstenau and Mirella Lapata .....	
<i>Cognitively Motivated Features for Readability Assessment</i>	229
Lijun Feng, Noémie Elhadad and Matt Huenerfauth .....	
<i>Effects of Word Confusion Networks on Voice Search</i>	238
Junlan Feng and Srinivas Bangalore .....	
<i>Company-Oriented Extractive Summarization of Financial News</i>	246
Katja Filippova, Mihai Surdeanu, Massimiliano Ciaramita and Hugo Zaragoza .....	
<i>Reconstructing False Start Errors in Spontaneous Speech Text</i>	255
Erin Fitzgerald, Keith Hall and Frederick Jelinek .....	
<i>TBL-Improved Non-Deterministic Segmentation and POS Tagging for a Chinese Parser</i>	264
Martin Forst and Ji Fang .....	
<i>Who is “You”? Combining Linguistic and Gaze Features to Resolve Second-Person References in Dialogue</i>	273
Matthew Frampton, Raquel Fernández, Patrick Ehlen, Mario Christoudias, Trevor Darrell and Stanley Peters .....	
<i>Rich Bitext Projection Features for Parse Reranking</i>	282
Alexander Fraser, Renjing Wang and Hinrich Schütze .....	
<i>Parsing Mildly Non-Projective Dependency Structures</i>	291
Carlos Gómez-Rodríguez, David Weir and John Carroll .....	
<i>Structural, Transitive and Latent Models for Biographic Fact Extraction</i>	300
Nikesh Garera and David Yarowsky .....	

<i>Semitic Morphological Analysis and Generation Using Finite State Transducers with Feature Structures</i>	
Michael Gasser .....	309
<i>Cube Summing, Approximate Inference with Non-Local Features, and Dynamic Programming without Semirings</i>	
Kevin Gimpel and Noah A. Smith .....	318
<i>Enhancing Unlexicalized Parsing Performance Using a Wide Coverage Lexicon, Fuzzy Tag-Set Mapping, and EM-HMM-Based Lexical Probabilities</i>	
Yoav Goldberg, Reut Tsarfaty, Meni Adler and Michael Elhadad .....	327
<i>Person Identification from Text and Speech Genre Samples</i>	
Jade Goldstein-Stewart, Ransom Winder and Roberta Sabin .....	336
<i>End-to-End Evaluation in Simultaneous Translation</i>	
Olivier Hamon, Christian Fügen, Djamel Mostefa, Victoria Arranz, Muntsin Kolss, Alex Waibel and Khalid Choukri .....	345
<i>Learning-Based Named Entity Recognition for Morphologically-Rich, Resource-Scarce Languages</i>	
Kazi Saidul Hasan, Md. Altaf ur Rahman and Vincent Ng .....	354
<i>Weakly Supervised Part-of-Speech Tagging for Morphologically-Rich, Resource-Scarce Languages</i>	
Kazi Saidul Hasan and Vincent Ng .....	363
<i>Improving Mid-Range Re-Ordering Using Templates of Factors</i>	
Hieu Hoang and Philipp Koehn .....	372
<i>Rule Filtering by Pattern for Efficient Hierarchical Translation</i>	
Gonzalo Iglesias, Adrià de Gispert, Eduardo R. Banga and William Byrne .....	380
<i>An Empirical Study on Class-Based Word Sense Disambiguation</i>	
Rubén Izquierdo, Armando Suárez and German Rigau .....	389
<i>Generating a Non-English Subjectivity Lexicon: Relations That Matter</i>	
Valentin Jijkoun and Katja Hofmann .....	398
<i>Parsing Coordinations</i>	
Sandra Kübler, Erhard Hinrichs, Wolfgang Maier and Eva Klett .....	406
<i>Automatic Single-Document Key Fact Extraction from Newswire Articles</i>	
Itamar Kastner and Christof Monz .....	415
<i>N-Gram-Based Statistical Machine Translation versus Syntax Augmented Machine Translation: Comparison and System Combination</i>	
Maxim Khalilov and José A. R. Fonollosa .....	424
<i>Lightly Supervised Transliteration for Machine Translation</i>	
Amit Kirschenbaum and Shuly Wintner .....	433
<i>Optimization in Coreference Resolution is not Needed: A Nearly-Optimal Algorithm with Intensional Constraints</i>	
Manfred Klenner and Étienne Ailloud .....	442
<i>A Logic of Semantic Representations for Shallow Parsing</i>	
Alexander Koller and Alex Lascarides .....	451

<i>Dependency Trees and the Strong Generative Capacity of CCG</i>	460
Alexander Koller and Marco Kuhlmann .....	
<i>Lattice Parsing to Integrate Speech Recognition and Rule-Based Machine Translation</i>	469
Selçuk Köprü and Adnan Yazıcı .....	
<i>Treebank Grammar Techniques for Non-Projective Dependency Parsing</i>	478
Marco Kuhlmann and Giorgio Satta .....	
<i>Improvements in Analogical Learning: Application to Translating Multi-Terms of the Medical Domain</i>	487
Philippe Langlais, François Yvon and Pierre Zweigenbaum .....	
<i>Language-Independent Bilingual Terminology Extraction from a Multilingual Parallel Corpus</i>	496
Els Lefever, Lieve Macken and Veronique Hoste .....	
<i>User Simulations for Context-Sensitive Speech Recognition in Spoken Dialogue Systems</i>	505
Oliver Lemon and Ioannis Konstas .....	
<i>Sentiment Summarization: Evaluating and Learning User Preferences</i>	514
Kevin Lerman, Sasha Blair-Goldensohn and Ryan McDonald .....	
<i>Correcting a POS-Tagged Corpus Using Three Complementary Methods</i>	523
Hrafn Loftsson .....	
<i>Translation as Weighted Deduction</i>	532
Adam Lopez .....	
<i>Performance Confidence Estimation for Automatic Summarization</i>	541
Annie Louis and Ani Nenkova .....	
<i>Bilingually Motivated Domain-Adapted Word Segmentation for Statistical Machine Translation</i>	549
Yanjun Ma and Andy Way .....	
<i>Evaluating the Inferential Utility of Lexical-Semantic Resources</i>	558
Shachar Mirkin, Ido Dagan and Eyal Shnarch .....	
<i>Text-to-Text Semantic Similarity for Automatic Short Answer Grading</i>	567
Michael Mohler and Rada Mihalcea .....	
<i>Syntactic and Semantic Kernels for Short Text Pair Categorization</i>	576
Alessandro Moschitti .....	
<i>Discovering Global Patterns in Linguistic Networks through Spectral Analysis: A Case Study of the Consonant Inventories</i>	585
Animesh Mukherjee, Monojit Choudhury and Ravi Kannan .....	
<i>Using Cycles and Quasi-Cycles to Disambiguate Dictionary Glosses</i>	594
Roberto Navigli .....	
<i>Deterministic Shift-Reduce Parsing for Unification-Based Grammars by Using Default Unification</i>	603
Takashi Ninomiya, Takuya Matsuzaki, Nobuyuki Shimizu and Hiroshi Nakagawa .....	
<i>Analysing Wikipedia and Gold-Standard Corpora for NER Training</i>	612
Joel Nothman, Tara Murphy and James R. Curran .....	

<i>Using Lexical and Relational Similarity to Classify Semantic Relations</i>	621
Diarmuid Ó Séaghdha and Ann Copestake .....	621
<i>Empirical Evaluations of Animacy Annotation</i>	630
Lilja Øvrelid .....	630
<i>Outclassing Wikipedia in Open-Domain Information Extraction: Weakly-Supervised Acquisition of Attributes over Conceptual Hierarchies</i>	639
Marius Paşa .....	639
<i>Predicting Strong Associations on the Basis of Corpus Data</i>	648
Yves Peirsman and Dirk Geeraerts .....	648
<i>Measuring Frame Relatedness</i>	657
Marco Pennacchiotti and Michael Wirth .....	657
<i>Flexible Answer Typing with Discriminative Preference Ranking</i>	666
Christopher Pinchak, Dekang Lin and Davood Rafiei .....	666
<i>Semi-Supervised Polarity Lexicon Induction</i>	675
Delip Rao and Deepak Ravichandran .....	675
<i>Natural Language Generation as Planning Under Uncertainty for Spoken Dialogue Systems</i>	683
Verena Rieser and Oliver Lemon .....	683
<i>Tagging Urdu Text with Parts of Speech: A Tagger Comparison</i>	692
Hassan Sajjad and Helmut Schmid .....	692
<i>Unsupervised Methods for Head Assignments</i>	701
Federico Sangati and Willem Zuidema .....	701
<i>A General, Abstract Model of Incremental Dialogue Processing</i>	710
David Schlangen and Gabriel Skantze .....	710
<i>Word Lattices for Multi-Source Translation</i>	719
Josh Schroeder, Trevor Cohn and Philipp Koehn .....	719
<i>Frequency Matters: Pitch Accents and Information Status</i>	728
Katrín Schweitzer, Michael Walsh, Bernd Möbius, Arndt Riester, Antje Schweitzer and Hinrich Schütze .....	728
<i>Using Non-Lexical Features to Identify Effective Indexing Terms for Biomedical Illustrations</i>	737
Matthew Simpson, Dina Demner-Fushman, Charles Sneiderman, Sameer K. Antani and George R. Thoma .....	737
<i>Incremental Dialogue Processing in a Micro-Domain</i>	745
Gabriel Skantze and David Schlangen .....	745
<i>Unsupervised Recognition of Literal and Non-Literal Use of Idiomatic Expressions</i>	754
Caroline Sporleder and Linlin Li .....	754
<i>Semi-Supervised Training for the Averaged Perceptron POS Tagger</i>	763
Drahomíra “johanka” Spoustová, Jan Hajič, Jan Raab and Miroslav Spousta .....	763
<i>Sequential Labeling with Latent Variables: An Exact Inference Algorithm and its Efficient Approximation</i>	772
Xu Sun and Jun’ichi Tsujii .....	772

<i>Text Summarization Model Based on Maximum Coverage Problem and its Variant</i>	
Hiroya Takamura and Manabu Okumura .....	781
<i>Fast Full Parsing by Linear-Chain Conditional Random Fields</i>	
Yoshimasa Tsuruoka, Jun'ichi Tsujii and Sophia Ananiadou .....	790
<i>MINT: A Method for Effective and Scalable Mining of Named Entity Transliterations from Large Comparable Corpora</i>	
Raghavendra Udupa, K Saravanan, A Kumaran and Jagadeesh Jagarlamudi .....	799
<i>Deriving Generalized Knowledge from Corpora Using WordNet Abstraction</i>	
Benjamin Van Durme, Phillip Michalak and Lenhart Schubert.....	808
<i>Learning Efficient Parsing</i>	
Gertjan van Noord .....	817
<i>A Robust and Extensible Exemplar-Based Model of Thematic Fit</i>	
Bram Vandekerckhove, Dominiek Sandra and Walter Daelemans .....	826
<i>Growing Finely-Discriminating Taxonomies from Seeds of Varying Quality and Size</i>	
Tony Veale, Guofu Li and Yanfen Hao .....	835
<i>Feature-Based Method for Document Alignment in Comparable News Corpora</i>	
Thuy Vu, Ai Ti Aw and Min Zhang.....	843
<i>Improving Grammaticality in Statistical Sentence Generation: Introducing a Dependency Spanning Tree Algorithm with an Argument Satisfaction Model</i>	
Stephen Wan, Mark Dras, Robert Dale and Cécile Paris .....	852
<i>Co-Dispersion: A Windowless Approach to Lexical Association</i>	
Justin Washtell .....	861
<i>Language ID in the Context of Harvesting Language Data off the Web</i>	
Fei Xia, William Lewis and Hoifung Poon .....	870
<i>Character-Level Dependencies in Chinese: Usefulness and Learning</i>	
Hai Zhao .....	879