

NAACL HLT 2009

**Human Language Technologies:  
The 2009 Annual Conference  
of the North American Chapter  
of the Association for  
Computational Linguistics**

**Short Papers**

May 31 – June 5, 2009  
Boulder, Colorado

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ISBN: 978-1-932432-42-8

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# Conference Program Overview

## Monday, June 1, 2009

- 9:00–10:10 Plenary Session – Invited Talk by Antonio Torralba: *Understanding Visual Scenes*
- 10:40–11:20 Session 1A: Semantics  
Session 1B: Multilingual Processing / Morphology and Phonology  
Session 1C: Syntax and Parsing  
Student Research Workshop Session 1
- 2:00–3:30 Short Paper Presentations:  
Session 2A: Machine Translation  
Session 2B: Information Retrieval / Information Extraction / Sentiment  
Session 2C: Dialog / Speech / Semantics  
Student Research Workshop Session 2
- 4:00–5:40 Session 3A: Machine Translation  
Session 3B: Semantics  
Session 3C: Information Retrieval  
Student Research Workshop Session 3
- 6:30–9:30 Poster and Demo Session  
Student Research Workshop Poster Session

## Tuesday, June 2, 2009

- 9:00–10:10 Plenary Session: Paper Award Presentations
- 10:10–11:40 Session 4A: Machine Translation  
Session 4B: Sentiment Analysis / Information Extraction  
Session 4C: Machine Learning / Morphology and Phonology
- 2:00–3:30 Short Paper Presentations:  
Session 5A: Machine Translation / Generation / Semantics  
Session 5B: Machine Learning / Syntax  
Session 5C: SPECIAL SESSION – Speech Indexing and Retrieval
- 4:00–5:15 Session 6A: Syntax and Parsing  
Session 6B: Discourse and Summarization  
Session 6C: Spoken Language Systems

**Wednesday, June 3, 2009**

- 9:00–10:10 Plenary Session – Invited Talk by Dan Jurafsky: *Ketchup, Espresso, and Chocolate Chip Cookies: Travels in the Language of Food*
- 10:40–12:20 Session 7A: Machine Translation  
Session 7B: Speech Recognition and Language Modeling  
Session 7C: Sentiment Analysis
- 12:40–1:40 Panel Discussion: *Emerging Application Areas in Computational Linguistics*
- 1:40–2:30 NAACL Business Meeting
- 2:30–3:45 Session 8A: Large-scale NLP  
Session 8B: Syntax and Parsing  
Session 8C: Discourse and Summarization
- 4:15–5:30 Session 9A: Machine Learning  
Session 9B: Dialog Systems  
Session 9C: Syntax and Parsing

# Conference Program

**Monday, June 1, 2009**

## **Plenary Session**

9:00–10:10 Welcome and Invited Talk: *Understanding Visual Scenes*  
Antonio Torralba

10:10–10:40 **Break**

## **Session 1A: Semantics**

Note: all full papers are located in the Main volume of the proceedings

10:40–11:05 *Subjectivity Recognition on Word Senses via Semi-supervised Mincuts*  
Fangzhong Su and Katja Markert

11:05–11:30 *Integrating Knowledge for Subjectivity Sense Labeling*  
Yaw Gyamfi, Janyce Wiebe, Rada Mihalcea and Cem Akkaya

11:30–11:55 *A Study on Similarity and Relatedness Using Distributional and WordNet-based Approaches*  
Eneko Agirre, Enrique Alfonseca, Keith Hall, Jana Kravalova, Marius Pasca and Aitor Soroa

11:55–12:20 *A Fully Unsupervised Word Sense Disambiguation Method Using Dependency Knowledge*  
Ping Chen, Wei Ding, Chris Bowes and David Brown

## **Session 1B: Multilingual Processing / Morphology and Phonology**

10:40–11:05 *Learning Phoneme Mappings for Transliteration without Parallel Data*  
Sujith Ravi and Kevin Knight

11:05–11:30 *A Corpus-Based Approach for the Prediction of Language Impairment in Monolingual English and Spanish-English Bilingual Children*  
Keyur Gabani, Melissa Sherman, Thamar Solorio, Yang Liu, Lisa Bedore and Elizabeth Peña

11:30–11:55 *A Discriminative Latent Variable Chinese Segmenter with Hybrid Word/Character Information*  
Xu Sun, Yaozhong Zhang, Takuya Matsuzaki, Yoshimasa Tsuruoka and Jun'ichi Tsujii

11:55–12:20 *Improved Reconstruction of Protolanguage Word Forms*  
Alexandre Bouchard-Côté, Thomas L. Griffiths and Dan Klein

**Monday, June 1, 2009 (continued)**

**Session 1C: Syntax and Parsing**

- 10:40–11:05 *Shared Logistic Normal Distributions for Soft Parameter Tying in Unsupervised Grammar Induction*  
Shay Cohen and Noah A. Smith
- 11:05–11:30 *Adding More Languages Improves Unsupervised Multilingual Part-of-Speech Tagging: a Bayesian Non-Parametric Approach*  
Benjamin Snyder, Tahira Naseem, Jacob Eisenstein and Regina Barzilay
- 11:30–11:55 *Efficiently Parsable Extensions to Tree-Local Multicomponent TAG*  
Rebecca Nesson and Stuart Shieber
- 11:55–12:20 *Improving Unsupervised Dependency Parsing with Richer Contexts and Smoothing*  
William P. Headden III, Mark Johnson and David McClosky

**Student Research Workshop Session 1:**

Note: all student research workshop papers are located in the Companion volume of the proceedings

- 10:40–11:10 *Classifier Combination Techniques Applied to Coreference Resolution*  
Smita Vemulapalli, Xiaoqiang Luo, John F. Pitrelli and Imed Zitouni
- 11:15–11:45 *Solving the "Who's Mark Johnson Puzzle": Information Extraction Based Cross Document Coreference*  
Jian Huang, Sarah M. Taylor, Jonathan L. Smith, Konstantinos A. Fotiadis and C. Lee Giles
- 11:50–12:20 *Exploring Topic Continuation Follow-up Questions using Machine Learning*  
Manuel Kirschner and Raffaella Bernardi
- 12:20–2:00 **Lunch Break**

**Monday, June 1, 2009 (continued)**

**Session 2A: Short Paper Presentations: Machine Translation**

- 2:00–2:15 *Cohesive Constraints in A Beam Search Phrase-based Decoder*  
Nguyen Bach, Stephan Vogel and Colin Cherry
- 2:15–2:30 *Revisiting Optimal Decoding for Machine Translation IBM Model 4*  
Sebastian Riedel and James Clarke
- 2:30–2:45 *Efficient Extraction of Oracle-best Translations from Hypergraphs*  
Zhifei Li and Sanjeev Khudanpur
- 2:45–3:00 *Semantic Roles for SMT: A Hybrid Two-Pass Model*  
Dekai Wu and Pascale Fung
- 3:00–3:15 *Comparison of Extended Lexicon Models in Search and Rescoring for SMT*  
Saša Hasan and Hermann Ney
- 3:15–3:30 *A Simplex Armijo Downhill Algorithm for Optimizing Statistical Machine Translation Decoding Parameters*  
Bing Zhao and Shengyuan Chen

**Session 2B: Short Paper Presentations: Information Retrieval / Information Extraction / Sentiment**

- 2:00–2:15 *Translation Corpus Source and Size in Bilingual Retrieval*  
Paul McNamee, James Mayfield and Charles Nicholas
- 2:15–2:30 *Large-scale Computation of Distributional Similarities for Queries*  
Enrique Alfonseca, Keith Hall and Silvana Hartmann
- 2:30–2:45 *Text Categorization from Category Name via Lexical Reference*  
Libby Barak, Ido Dagan and Eyal Shnarch
- 2:45–3:00 *Identifying Types of Claims in Online Customer Reviews*  
Shilpa Arora, Mahesh Joshi and Carolyn P. Rosé
- 3:00–3:15 *Towards Automatic Image Region Annotation - Image Region Textual Coreference Resolution*  
Emilia Apostolova and Dina Demner-Fushman

**Monday, June 1, 2009 (continued)**

3:15–3:30     *TESLA: A Tool for Annotating Geospatial Language Corpora*  
Nate Blaylock, Bradley Swain and James Allen

**Session 2C: Short Paper Presentations: Dialog / Speech / Semantics**

2:00–2:15     *Modeling Dialogue Structure with Adjacency Pair Analysis and Hidden Markov Models*  
Kristy Elizabeth Boyer, Robert Phillips, Eun Young Ha, Michael Wallis, Mladen Vouk and James Lester

2:15–2:30     *Towards Natural Language Understanding of Partial Speech Recognition Results in Dialogue Systems*  
Kenji Sagae, Gwen Christian, David DeVault and David Traum

2:30–2:45     *Spherical Discriminant Analysis in Semi-supervised Speaker Clustering*  
Hao Tang, Stephen Chu and Thomas Huang

2:45–3:00     *Learning Bayesian Networks for Semantic Frame Composition in a Spoken Dialog System*  
Marie-Jean Meurs, Fabrice Lefèvre and Renato De Mori

3:00–3:15     *Evaluation of a System for Noun Concepts Acquisition from Utterances about Images (SINCA) Using Daily Conversation Data*  
Yuzu Uchida and Kenji Araki

3:15–3:30     *Web and Corpus Methods for Malay Count Classifier Prediction*  
Jeremy Nicholson and Timothy Baldwin

**Monday, June 1, 2009 (continued)**

**Student Research Workshop Session 2**

Note: all student research workshop papers are located in the Companion volume of the proceedings

2:00–2:30 *Sentence Realisation from Bag of Words with Dependency Constraints*  
Karthik Gali and Sriram Venkatapathy

2:35–3:05 *Using Language Modeling to Select Useful Annotation Data*  
Dmitriy Dligach and Martha Palmer

3:30–4:00 **Break**

**Session 3A: Machine Translation**

4:00–4:25 *Context-Dependent Alignment Models for Statistical Machine Translation*  
Jamie Brunning, Adrià de Gispert and William Byrne

4:25–4:50 *Graph-based Learning for Statistical Machine Translation*  
Andrei Alexandrescu and Katrin Kirchhoff

4:50–5:15 *Intersecting Multilingual Data for Faster and Better Statistical Translations*  
Yu Chen, Martin Kay and Andreas Eisele

5:15–5:40 No Presentation

**Session 3B: Semantics**

4:00–4:25 *Without a 'doubt'? Unsupervised Discovery of Downward-Entailing Operators*  
Cristian Danescu-Niculescu-Mizil, Lillian Lee and Richard Ducott

4:25–4:50 *The Role of Implicit Argumentation in Nominal SRL*  
Matthew Gerber, Joyce Chai and Adam Meyers

4:50–5:15 *Jointly Identifying Predicates, Arguments and Senses using Markov Logic*  
Ivan Meza-Ruiz and Sebastian Riedel

5:15–5:40 *Structured Generative Models for Unsupervised Named-Entity Clustering*  
Micha Elsner, Eugene Charniak and Mark Johnson

**Monday, June 1, 2009 (continued)**

**Session 3C: Information Retrieval**

- 4:00–4:25 *Hierarchical Dirichlet Trees for Information Retrieval*  
Gholamreza Haffari and Yee Whye Teh
- 4:25–4:50 *Phrase-Based Query Degradation Modeling for Vocabulary-Independent Ranked Utterance Retrieval*  
J. Scott Olsson and Douglas W. Oard
- 4:50–5:15 *Japanese Query Alteration Based on Lexical Semantic Similarity*  
Masato Hagiwara and Hisami Suzuki
- 5:15–5:40 *Context-based Message Expansion for Disentanglement of Interleaved Text Conversations*  
Lidan Wang and Douglas Oard

**Student Research Workshop Session 3**

Note: all student research workshop papers are located in the Companion volume of the proceedings

- 4:00–4:30 *Pronunciation Modeling in Spelling Correction for Writers of English as a Foreign Language*  
Adriane Boyd
- 4:35–5:05 *Building a Semantic Lexicon of English Nouns via Bootstrapping*  
Ting Qian, Benjamin Van Durme and Lenhart Schubert
- 5:10–5:40 *Multiple Word Alignment with Profile Hidden Markov Models*  
Aditya Bhargava and Grzegorz Kondrak

6:30–9:30 **Poster and Demo Session**

Note: all demo abstracts are located in the Companion volume of the proceedings

*Minimum Bayes Risk Combination of Translation Hypotheses from Alternative Morphological Decompositions*

Adrià de Gispert, Sami Virpioja, Mikko Kurimo and William Byrne

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Siddhartha Jonnalagadda, Luis Tari, Jörg Hakenberg, Chitta Baral and Graciela Gonzalez

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*Improving A Simple Bigram HMM Part-of-Speech Tagger by Latent Annotation and Self-Training*  
Zhongqiang Huang, Vladimir Eidelman and Mary Harper

**6:30–9:30 Student Research Workshop Poster Session**

Note: all student research workshop papers are located in the Companion volume of the proceedings

Also: All papers presented in the morning and afternoon sessions of the student research workshop will also be shown as posters.

**Monday, June 1, 2009 (continued)**

*Using Emotion to Gain Rapport in a Spoken Dialog System*  
Jaime Acosta

*Interactive Annotation Learning with Indirect Feature Voting*  
Shilpa Arora and Eric Nyberg

*Loss-Sensitive Discriminative Training of Machine Transliteration Models*  
Kedar Bellare, Koby Crammer and Dayne Freitag

*Syntactic Tree-based Relation Extraction Using a Generalization of Collins and Duffy Convolution Tree Kernel*  
Mahdy Khayyamian, Seyed Abolghasem Mirroshandel and Hassan Abolhassani

*Towards Building a Competitive Opinion Summarization System: Challenges and Keys*  
Elena Lloret, Alexandra Balahur, Manuel Palomar and Andres Montoyo

*Domain-Independent Shallow Sentence Ordering*  
Thade Nahnsen

*Towards Unsupervised Recognition of Dialogue Acts*  
Nicole Novielli and Carlo Strapparava

*Modeling Letter-to-Phoneme Conversion as a Phrase Based Statistical Machine Translation Problem with Minimum Error Rate Training*  
Taraka Rama, Anil Kumar Singh and Sudheer Kolachina

*Disambiguation of Preposition Sense Using Linguistically Motivated Features*  
Stephen Tratz and Dirk Hovy

**Tuesday, June 2, 2009**

**Plenary Session**

9:00–9:10 Paper Awards

9:10–9:40 *Unsupervised Morphological Segmentation with Log-Linear Models*  
Hoifung Poon, Colin Cherry and Kristina Toutanova

9:40–10:10 *11,001 New Features for Statistical Machine Translation*  
David Chiang, Kevin Knight and Wei Wang

10:10–10:40 **Break**

**Session 4A: Machine Translation**

10:10–10:35 *Efficient Parsing for Transducer Grammars*  
John DeNero, Mohit Bansal, Adam Pauls and Dan Klein

10:35–10:50 *Preference Grammars: Softening Syntactic Constraints to Improve Statistical Machine Translation*  
Ashish Venugopal, Andreas Zollmann, Noah Smith and Stephan Vogel

10:50–11:15 *Using a Dependency Parser to Improve SMT for Subject-Object-Verb Languages*  
Peng Xu, Jaeho Kang, Michael Ringgaard and Franz Och

11:15–11:40 *Learning Bilingual Linguistic Reordering Model for Statistical Machine Translation*  
Han-Bin Chen, Jian-Cheng Wu and Jason S. Chang

**Tuesday, June 2, 2009 (continued)**

**Session 4B: Sentiment Analysis / Information Extraction**

- 10:10–10:35 *May All Your Wishes Come True: A Study of Wishes and How to Recognize Them*  
Andrew Goldberg, Nathanael Fillmore, David Andrzejewski, Zhiting Xu, Bryan Gibson  
and Xiaojin Zhu
- 10:35–10:50 *Predicting Risk from Financial Reports with Regression*  
Shimon Kogan, Dimitry Levin, Bryan R. Routledge, Jacob S. Sagi and Noah A. Smith
- 10:50–11:15 *Domain Adaptation with Latent Semantic Association for Named Entity Recognition*  
Honglei Guo, Huijia Zhu, Zhili Guo, Xiaoxun Zhang, Xian Wu and Zhong Su
- 11:15–11:40 *Semi-Automatic Entity Set Refinement*  
Vishnu Vyas and Patrick Pantel

**Session 4C: Machine Learning / Morphology and Phonology**

- 10:10–10:35 *Unsupervised Constraint Driven Learning For Transliteration Discovery*  
Ming-Wei Chang, Dan Goldwasser, Dan Roth and Yuancheng Tu
- 10:35–10:50 *On the Syllabification of Phonemes*  
Susan Bartlett, Grzegorz Kondrak and Colin Cherry
- 10:50–11:15 *Improving nonparameteric Bayesian inference: experiments on unsupervised word seg-  
mentation with adaptor grammars*  
Mark Johnson and Sharon Goldwater
- 11:15–11:40 No Presentation
- 12:20–2:00 **Lunch Break**

**Tuesday, June 2, 2009 (continued)**

**Session 5A: Short Paper Presentations: Machine Translation / Generation / Semantics**

- 2:00–2:15 *Statistical Post-Editing of a Rule-Based Machine Translation System*  
Antonio-L. Lagarda, Vicent Alabau, Francisco Casacuberta, Roberto Silva and Enrique Díaz-de-Liaño
- 2:15–2:30 *On the Importance of Pivot Language Selection for Statistical Machine Translation*  
Michael Paul, Hirofumi Yamamoto, Eiichiro Sumita and Satoshi Nakamura
- 2:30–2:45 *Tree Linearization in English: Improving Language Model Based Approaches*  
Katja Filippova and Michael Strube
- 2:45–3:00 *Determining the position of adverbial phrases in English*  
Huayan Zhong and Amanda Stent
- 3:00–3:15 *Estimating and Exploiting the Entropy of Sense Distributions*  
Peng Jin, Diana McCarthy, Rob Koeling and John Carroll
- 3:15–3:30 *Semantic Classification with WordNet Kernels*  
Diarmuid Ó Séaghdha

**Session 5B: Short Paper Presentations: Machine Learning / Syntax**

- 2:00–2:15 *Sentence Boundary Detection and the Problem with the U.S.*  
Dan Gillick
- 2:15–2:30 *Quadratic Features and Deep Architectures for Chunking*  
Joseph Turian, James Bergstra and Yoshua Bengio
- 2:30–2:45 *Active Zipfian Sampling for Statistical Parser Training*  
Onur Çobanoğlu
- 2:45–3:00 *Combining Constituent Parsers*  
Victoria Fossum and Kevin Knight
- 3:00–3:15 *Recognising the Predicate-argument Structure of Tagalog*  
Meladel Mistica and Timothy Baldwin

**Tuesday, June 2, 2009 (continued)**

3:15–3:30 *Reverse Revision and Linear Tree Combination for Dependency Parsing*  
Giuseppe Attardi and Felice Dell’Orletta

**Session 5C: Short Paper Presentations: SPECIAL SESSION – Speech Indexing and Retrieval**

2:00–2:15 *Introduction to the Special Session on Speech Indexing and Retrieval*

2:15–2:30 *Anchored Speech Recognition for Question Answering*  
Sibel Yaman, Gokan Tur, Dimitra Vergyri, Dilek Hakkani-Tur, Mary Harper and Wen Wang

2:30–2:45 *Score Distribution Based Term Specific Thresholding for Spoken Term Detection*  
Dogan Can and Murat Saraclar

2:45–3:00 *Automatic Chinese Abbreviation Generation Using Conditional Random Field*  
Dong Yang, Yi-Cheng Pan and Sadaoki Furui

3:00–3:15 *Fast decoding for open vocabulary spoken term detection*  
Bhuvana Ramabhadran, Abhinav Sethy, Jonathan Mamou, Brian Kingsbury and Upendra Chaudhari

3:15–3:30 *Tightly coupling Speech Recognition and Search*  
Taniya Mishra and Srinivas Bangalore

3:30–4:00 **Break**

**Session 6A: Syntax and Parsing**

4:00–4:25 *Joint Parsing and Named Entity Recognition*  
Jenny Rose Finkel and Christopher D. Manning

4:25–4:50 *Minimal-length linearizations for mildly context-sensitive dependency trees*  
Y. Albert Park and Roger Levy

4:50–5:15 *Positive Results for Parsing with a Bounded Stack using a Model-Based Right-Corner Transform*  
William Schuler



**Tuesday, June 2, 2009 (continued)**

**Session 6B: Discourse and Summarization**

- 4:00–4:25 *Hierarchical Text Segmentation from Multi-Scale Lexical Cohesion*  
Jacob Eisenstein
- 4:25–4:50 *Exploring Content Models for Multi-Document Summarization*  
Aria Haghighi and Lucy Vanderwende
- 4:50–5:15 *Global Models of Document Structure using Latent Permutations*  
Harr Chen, S.R.K. Branavan, Regina Barzilay and David R. Karger

**Session 6C: Spoken Language Systems**

- 4:00–4:25 *Assessing and Improving the Performance of Speech Recognition for Incremental Systems*  
Timo Baumann, Michaela Atterer and David Schlangen
- 4:25–4:50 *Geo-Centric Language Models for Local Business Voice Search*  
Amanda Stent, Ilija Zeljkovic, Diamantino Caseiro and Jay Wilpon
- 4:50–5:15 *Improving the Arabic Pronunciation Dictionary for Phone and Word Recognition with Linguistically-Based Pronunciation Rules*  
Fadi Biadisy, Nizar Habash and Julia Hirschberg

**Wednesday, June 3, 2009**

**Plenary Session**

- 9:00–10:10 Invited Talk: *Ketchup, Espresso, and Chocolate Chip Cookies: Travels in the Language of Food*  
Dan Jurafsky
- 10:10–10:40 **Break**

**Wednesday, June 3, 2009 (continued)**

**Session 7A: Machine Translation**

- 10:40–11:05 *Using a maximum entropy model to build segmentation lattices for MT*  
Chris Dyer
- 11:05–11:30 *Active Learning for Statistical Phrase-based Machine Translation*  
Gholamreza Haffari, Maxim Roy and Anoop Sarkar
- 11:30–11:55 *Semi-Supervised Lexicon Mining from Parenthetical Expressions in Monolingual Web Pages*  
Xianchao Wu, Naoaki Okazaki and Jun'ichi Tsujii
- 11:55–12:20 *Hierarchical Phrase-Based Translation with Weighted Finite State Transducers*  
Gonzalo Iglesias, Adrià de Gispert, Eduardo R. Banga and William Byrne

**Session 7B: Speech Recognition and Language Modeling**

- 10:40–11:05 *Improved pronunciation features for construct-driven assessment of non-native spontaneous speech*  
Lei Chen, Klaus Zechner and Xiaoming Xi
- 11:05–11:30 *Performance Prediction for Exponential Language Models*  
Stanley Chen
- 11:30–11:55 *Tied-Mixture Language Modeling in Continuous Space*  
Ruhi Sarikaya, Mohamed Afify and Brian Kingsbury
- 11:55–12:20 *Shrinking Exponential Language Models*  
Stanley Chen

**Wednesday, June 3, 2009 (continued)**

**Session 7C: Sentiment Analysis**

- 10:40–11:05 *Predicting Response to Political Blog Posts with Topic Models*  
Tae Yano, William W. Cohen and Noah A. Smith
- 11:05–11:30 *An Iterative Reinforcement Approach for Fine-Grained Opinion Mining*  
Weifu Du and Songbo Tan
- 11:30–11:55 *For a few dollars less: Identifying review pages sans human labels*  
Luciano Barbosa, Ravi Kumar, Bo Pang and Andrew Tomkins
- 11:55–12:20 *More than Words: Syntactic Packaging and Implicit Sentiment*  
Stephan Greene and Philip Resnik
- 12:20–1:40 **Lunch Break**
- 12:40–1:40 Panel Discussion: *Emerging Application Areas in Computational Linguistics*  
Chaired by Bill Dolan, Microsoft  
Panelists: Jill Burstein, Educational Testing Service; Joel Tetreault, Educational Testing Service; Patrick Pantel, Yahoo; Andy Hickl, Language Computer Corporation + Swingly
- 1:40–2:30 NAACL Business Meeting

**Session 8A: Large-scale NLP**

- 2:30–2:55 *Streaming for large scale NLP: Language Modeling*  
Amit Goyal, Hal Daume III and Suresh Venkatasubramanian
- 2:55–3:20 *The Effect of Corpus Size on Case Frame Acquisition for Discourse Analysis*  
Ryohei Sasano, Daisuke Kawahara and Sadao Kurohashi
- 3:20–3:45 *Semantic-based Estimation of Term Informativeness*  
Kirill Kireyev

**Wednesday, June 3, 2009 (continued)**

**Session 8B: Syntax and Parsing**

- 2:30–2:55 *Optimal Reduction of Rule Length in Linear Context-Free Rewriting Systems*  
Carlos Gómez-Rodríguez, Marco Kuhlmann, Giorgio Satta and David Weir
- 2:55–3:20 *Inducing Compact but Accurate Tree-Substitution Grammars*  
Trevor Cohn, Sharon Goldwater and Phil Blunsom
- 3:20–3:45 *Hierarchical Search for Parsing*  
Adam Pauls and Dan Klein

**Session 8C: Discourse and Summarization**

- 2:30–2:55 *An effective Discourse Parser that uses Rich Linguistic Information*  
Rajen Subba and Barbara Di Eugenio
- 2:55–3:20 *Graph-Cut-Based Anaphoricity Determination for Coreference Resolution*  
Vincent Ng
- 3:20–3:45 *Using Citations to Generate surveys of Scientific Paradigms*  
Saif Mohammad, Bonnie Dorr, Melissa Egan, Ahmed Hassan, Pradeep Muthukrishan,  
Vahed Qazvinian, Dragomir Radev and David Zajic

3:45–4:15 **Break**

**Session 9A: Machine Learning**

- 4:15–4:40 *Non-Parametric Bayesian Areal Linguistics*  
Hal Daume III
- 4:40–5:05 *Hierarchical Bayesian Domain Adaptation*  
Jenny Rose Finkel and Christopher D. Manning
- 5:05–5:30 *Online EM for Unsupervised Models*  
Percy Liang and Dan Klein

**Wednesday, June 3, 2009 (continued)**

**Session 9B: Dialog Systems**

- 4:15–4:40     *Unsupervised Approaches for Automatic Keyword Extraction Using Meeting Transcripts*  
Feifan Liu, Deana Pennell, Fei Liu and Yang Liu
- 4:40–5:05     *A Finite-State Turn-Taking Model for Spoken Dialog Systems*  
Antoine Raux and Maxine Eskenazi
- 5:05–5:30     *Extracting Social Meaning: Identifying Interactional Style in Spoken Conversation*  
Dan Jurafsky, Rajesh Ranganath and Dan McFarland

**Session 9C: Syntax and Parsing**

- 4:15–4:40     *Linear Complexity Context-Free Parsing Pipelines via Chart Constraints*  
Brian Roark and Kristy Hollingshead
- 4:40–5:05     *Improved Syntactic Models for Parsing Speech with Repairs*  
Tim Miller
- 5:05–5:30     *A model of local coherence effects in human sentence processing as consequences of updates from bottom-up prior to posterior beliefs*  
Klinton Bicknell and Roger Levy

