



## IJCNLP 2011

The Fifth International Joint Conference on Natural  
Language Processing

November 8-13, 2011  
Shangri-La Hotel  
Chiang Mai, Thailand





IJCNLP 2011

**Proceedings of  
the Fifth International Joint Conference on Natural  
Language Processing**

November 8 – 13, 2011  
Chiang Mai, Thailand



We wish to thank our sponsors

### Gold Sponsors

---



[www.google.com](http://www.google.com)



[www.baidu.com](http://www.baidu.com)



[The Office of Naval Research \(ONR\)](#)



[The Asian Office of Aerospace Research and Development \(AOARD\)](#)



[Department of Systems Engineering and Engineering Management, The Chinese University of Hong Kong](#)

### Silver Sponsors

---



[Microsoft Corporation](#)

### Bronze Sponsors

---



[Chinese and Oriental Languages Information Processing Society \(COLIPS\)](#)

### Supporter

---



[Thailand Convention and Exhibition Bureau \(TCEB\)](#)

We wish to thank our sponsors

**Organizers**

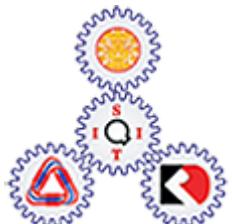
---



[Asian Federation of Natural Language Processing \(AFNLP\)](#)



[National Electronics and Computer Technology Center \(NECTEC\), Thailand](#)



[Sirindhorn International Institute of Technology \(SIIT\), Thailand](#)



[Rajamangala University of Technology Lanna \(RMUTL\), Thailand](#)



[Maejo University, Thailand](#)



[Chiang Mai University \(CMU\), Thailand](#)

©2011 Asian Federation of Natural Language Proceesing

ISBN 978-974-466-564-5

## **FOREWORD**

### IJCNLP2011, where Anna(s) meet the king(s) for sharing knowledge in natural language

IJCNLP2011 is held in Chiang Mai. It is a historic city situated in the northern part of Thailand. Organizing the conference in this part of Asia made us think of the classic movie “The King and I” (1956), where King Mongkut of Siam invited Anna Leonowens an Anglo-Indian school teacher to Siam to teach his family English. Similar to the movie, IJCNLP2011 brings together scientists and practitioners from the East and West in pursuit of the knowledge of natural language processing (NLP).

Virach, Hitoshi and I compiled this passage collaboratively online using our own iPads. Despite us being physically apart, in Thailand, Japan and Hong Kong respectively, our collaborative editorial work went smoothly with virtually no distance. The increasing popularity of smart handheld devices, such as iPhones and iPads has practically made the world flat. The hurdles and boundaries between people have effectively been lifted enabling friends and relatives over the globe to keep in close contact with each other. We use email, blog, facebook and twitter regularly and ubiquitously for communications. Non-traditional they may be, the languages for communication over these channels are natural as they are used by the netizens (human) for information exchange. Processing of these natural languages is inevitably unconventional and the task is challenging, which requires much innovation. For this reason, NLP is a key research area both in the industry and in universities worldwide. Therefore, it is not surprising that we have received over 500 submissions from different countries around the world in this year’s IJCNLP. This number is in fact the largest in the history of the conference series.

Organizing a conference of the scale of IJCNLP2011 (with over 300 participants) is never easy. We worked closely as a team in the past ten months. It is really not easy for us to express our gratitude to any one individual. The names of the hard working conference officers, the track chairs, the workshop chairs, the tutors as well as the reviewers are enlisted in the proceedings. We owe everyone a billion. Without their hard work IJCNLP2011 would never have reached this stage. So please help me praise and thank them when you meet them in the conference.

Chiang Mai is a cultural city full of history and traditions, with many famous attractions such as its melodious colloquial language, Lanna style of clothing, mellow taste of food, etc. During the conference period, we will experience the “Loi Krathong Festival” where people float krathong (floating basket) on a river to pay respect to the spirit of the waters. IJCNLP2011 in November Chiang Mai is unique. It coincides with the unforgettable Lanna Festival. Locally known as “Yi Peng”, the festival will bring to you a memorable cultural experience. You will witness a multitude of Lanna-style sky lanterns (khom loi, literally ”floating lanterns”) gently rising in the air. These lanterns resemble large flocks of giant fluorescent jellyfish gracefully floating by through the sky. Honestly, these attractions are just too good to be missed.

Dear friends and colleagues of the world NLP communities, honorable guests of Chiang Mai, we are glad to see you in IJCNLP2011. We hope you find the technical program useful to your research and can discover something insightful at the end. And before closing, as one often said “seeing is believing”, we urge you to spare some time after the conference to explore and to enjoy the city.

Ka Poon Kap (thank you)

Kam-Fai Wong, General Chair, The Chinese University of Hong Kong (CUHK), China

Virach Sornlertlamvanich, Organization Co-Chair, National Electronics and Computer Technology Center (NECTEC), Thailand

Hitoshi Isahara, Organization Co-Chair, Toyohashi University of Technology, Japan

November 7, 2011



## PREFACE

As the flagship conference of the Asian Federation of Natural Language Processing (AFNLP), IJCNLP has now rapidly grown into a renowned international event. IJCNLP 2011 covers a broad spectrum of technical areas related to natural language processing. The conference includes full papers, short papers, demonstrations, a student research workshop, as well as pre- and post-conference tutorials and workshops.

This year, we received a record 478 valid paper submissions, which is well beyond our initial expectations. This represents an increasing interest of research on NLP and the growing reputation of IJCNLP as an international event. The 478 submissions include 385 full-paper submissions and 93 short-paper submissions from more than 40 countries. Specifically, approximately 61% of the papers are from 16 countries and areas in Asia Pacific, 22% from 16 countries in Europe, 14% from the United States and Canada; we also have 2% of the papers from the Middle East and Africa, and 1% from South America.

We would like to thank all the authors for submitting papers to IJCNLP 2011. The significant increase in the number of submissions and the wide range of demographic areas represent a rapid growth of our field. We would also like to thank the 22 area chairs and 474 program committee members for writing over 1400 reviews and meta-reviews and for paving the way for the final paper selection. Of all 478 submissions, a total of 176 papers were accepted, representing a healthy 36% acceptance rate. The accepted papers are comprised of 149 full papers (8+ pages), of which 107 are presented orally and 42 as posters, and 27 short papers (4+ pages) where 25 are presented orally and 2 as posters. We are extremely grateful to the area chairs and program committee members for all their hard work, without which the preparation of this program would not be possible.

We are delighted to have invited three strategic keynote speakers addressing different application aspects of NLP for the Web in IJCNLP2011. Mathew Lease will talk about “crowdsourcing”, which is a trendy and effective means to perform a task that requires hundreds/thousands of people, such as corpus tagging. Wai Lam will present the latest techniques for information extraction, which is essential for today’s Internet business. And last but not the least, Mengqiu Wang, Vice President of Baidu, the largest Internet search company in China, will share with us the recent trends in search and social network technologies and how NLP techniques can be applied to improve performance in the real world. These speeches will surely be informative and enlightening to the audience leading to many innovative research ideas. We are excited about it and are looking forward to them. Best paper awards will be announced in the last session of the conference as well.

We thank General Chair Kam-Fai Wong, the Local Arrangements Committee headed by Virach Sornlertlamvanich and Hitoshi Isahara, and the AFNLP Conference Coordination Committee chaired by Yuji Matsumoto, for their help and advice. Thanks to Min Zhang and Sudeshria Sarkar, the Publication Co-Chairs for putting the proceedings together, and all the other committee chairs for their work.

We hope that you enjoy the conference!

Haifeng Wang, Baidu

David Yarowsky, Johns Hopkins University

November 7, 2011

**Honorary Conference Chair**

Chaiyong Euviriyankul, Rajamangala University of Technology Lanna, Thailand  
Chongrak Polprasert, Sirindhorn International Institute of Technology, Thailand  
Thaweesak Koanantakool, NSTDA, Thailand

**General Chair**

Kam-Fai Wong, The Chinese University of Hong Kong, China

**Program Co-Chairs:**

Haifeng Wang, Baidu, China  
David Yarowsky, John Hopkins University, USA

**Organisation Co-Chairs:**

Virach Sornlertlamvanich, NECTEC, Thailand  
Hitoshi Isahara, Toyohashi University of Technology, Japan

**Workshop Co-Chairs:**

Sivaji Bandyopadhyay, Jadavpur University, India  
Jong Park, KAIST, Korea  
Noriko Kando, NII, Japan

**Tutorial Co-Chairs:**

Kentaro Inui, Tohoku University, Japan  
Wei Gao, The Chinese University of Hong Kong, China  
Dawei Song, Robert Gordon University, UK

**Demonstration Co-Chairs:**

Ken Church, Johns Hopkins University, USA  
Yunqing Xia, Tsinghua University, China

**Publication Co-Chairs:**

Min Zhang, I2R, Singapore  
Sudeshna Sarkar, IIT Kharagpur, India

**Finance Co-Chairs:**

Vilas Wuwongse, AIT, Thailand  
Gary Lee, POSTECH, Korea

**Sponsorship Co-Chairs:**

Asanee Kawtrakul, Kasetsart University, Thailand  
Methinee Sirikrai, NECTEC, Thailand  
Hiromi Nakaiwa, NTT, Japan

**Publicity Committee:**

Steven Bird, University of Melbourne, Australia  
Le Sun, CIPS, China  
Kevin Knight, USC, USA  
Nicoletta Calzolari, Istituto di Linguistica Computazionale del CNR, Italy  
Thanaruk Theeramunkong, SIIT, Thailand

**Webmasters:**

Swit Phuvipadawat, Tokyo Institute of Technology, Japan  
Wirat Chinnan, SIIT, Thailand

**Area Chairs:****Discourse, Dialogue and Pragmatics**

David Schlangen, The University of Potsdam, Germany

**Generation /Summarization**

Xiaojun Wan, Peking University, China

**Information Extraction**

Wenjie Li, The Hong Kong Polytechnic University, Hong Kong

**Information Retrieval**

Gareth Jones, Dublin City University, Ireland

**Language Resource**

Eneko Agirre, University of the Basque Country, Spain

**Machine Translation**

David Chiang, USC-ISI, USA

Min Zhang, Institute for Infocomm Research, Singapore

Hua Wu, Baidu, China

**Phonology/morphology, POS tagging and chunking, Word Segmentation**

Richard Sproat, Oregon Health & Science University, USA

Gary Lee, Pohang University of Science and Technology, Korea

**Question Answering**

Jun Zhao, Institute of Automation, Chinese Academy of Sciences, China

**Semantics**

Pushpak Bhattacharyya, Indian Institute of Technology, India

Hinrich Schuetze, University of Stuttgart, Germany

**Sentiment Analysis, Opinion Mining and Text Classification**

Rafael Banchs, Institute for Infocomm Research, Singapore

Theresa Wilson, Johns Hopkins University, USA

**Spoken Language Processing**

Chung-Hsien Wu, National Cheng Kung University, Taiwan

**Statistical and ML Methods**

Miles Osborne, The University of Edinburgh, UK

David Smith, University of Massachusetts Amherst, USA

## Syntax and Parsing

Stephen Clark, University of Cambridge, UK  
Yusuke Miyao, National Institute of Informatics, Japan

## Text Mining and NLP Applications

Juanzi Li, Tsinghua University, China  
Patrick Pantel, Microsoft Research, USA

## Reviewers

Ahmed Abbasi, Omri Abend, Akiko Aizawa, Ahmet Aker, Enrique Alfonseca, DAUD ALI, Ben Allison, Robin Aly, Alina Andreevskaia, Masayuki Asahara, Ai Azuma

Jing Bai, Alexandra Balahur, Timothy Baldwin, Kalika Bali, Carmen Banea, Srinivas Bangalore, Mohit Bansal, Marco Bbaroni, Roberto Basili, Timo Baumann, Emily Bender, Shane Bergsma, Pushpak Bhattacharyya, Dan Bikel, Wang Bin, Lexi Birch, Michael Bloodgood, Phil Blunsom, Nate Bodenstab, Ester Boldrini, Gemma Boleda, Danushka Bollegala, Luc Boruta, Stefan Bott, Chris Brew, Sam Brody, Julian Brooke, Paul Buitelaar, Miriam Butt

Aoife Cahill, Li Cai, Yi Cai, Nicoletta Calzolari, Jaime Carbonell, Marine Carpuat, John Carroll, Paula Carvalho, Suleyman Cetintas, Debasri Chakrabarti, Nate Chambers, Niladri Chatterjee, Wanxiang Che, Berlin Chen, Boxing Chen, Chia-Ping Chen, Hsin-Hsi Chen, Wenliang Chen, Ying Chen, Yufeng Chen, Pu-Jen Cheng, Colin Cherry, Jackie Chi KiCheung, Key-Sun Choi, Monojit Choudhury, Christos Christodoulopoulos, Kenneth Church, Alex Clark, Shay Cohen, Trevor Cohn, Gao Cong, Marta R. Costa-jussa, Paul Crook, Montse Cuadros, Ronan Cummins

Robert Damper, Kareem Darwish, Dipanjan Das, Niladri Dash, Adrià de Gispert, Daniel de Kok, Eric De La Clergerie, Stijn De Saeger, Steve DeNeefe, Pascal Denis, Ann Devitt, Arantza Diaz de Ilaraza, Anne Diekema, Markus Dreyer, Rebecca Dridan, Jinhua Du, Xiangyu Duan, Amit Dubey, Kevin Duh, Chris Dyer, Michal Dziemianko

Jacob Eisenstein, Michael Elhadad, Micha Elsner, Martin Emms

Angela Fahrni, Hui Fang, Yi Fang, Li Fangtao, Christiane Fellbaum, Raquel Fernandez, Colum Foley, Jennifer Foster, Timothy Fowler, Stella Frank, Guohong Fu, Atsushi Fujii, Kotaro Funakoshi, Hagen Fürstenau

Matthias Galle, Michael Gamon, Michaela Geierhos, Eugenie Giesbrecht, Alastair Gill, Roxana Girju, Bruno Golenia, Carlos Gomez-Rodriguez, Zhengxian Gong, Matt Gormley, Amit Goyal, João Graça, Jens Grivolla, Iryna Gurevych

Stephanie Haas, Barry Haddow, Eva Hajicova, David Hall, Keith Hall, Xianpei Han, Kazuo Hara, Donna Harman, Kazi Hasan, Chikara Hashimoto, Koiti Hasida, Eva Hasler, Samer Hassan, Claudia Hauff, Xiaodong He, Yulan He, Zhongjun He, Carlos Henriquez, Tsutomu Hirao, Hieu Hoang, Tracy Holloway King, Matthew Honnibal, Mark Hopkins, Meishan Hu, Chien-Lin Huang, Fei Huang, Minlie Huang, Ruizhang Huang, Xiaojiang Huang, Xuanjing Huang, Yun Huang, Zhongqiang Huang

Francisco Iacobelli, Diana Inkpen, Aminul Islam, Ruben Izquierdo

Heng Ji, Sittichai Jiampojamarn, Hongfei Jiang, Wenbin Jiang, Xing Jiang, Cai Jie, Rong Jin, Richard Johansson, Hanmin Jung

Sarvnaz Karimi, Daisuke Kawahara, Jun'ichi Kazama, Liadh Kelly, Maxim Khalilov, Mitesh Khapra, Adam Kilgarriff, Byeongchang Kim, Irwin King, Alistair Knott, Philipp Koehn, Rob Koeling, Oskar Kohonen, Mamoru Komachi, Grzegorz Kondrak, Fang Kong, Valia Kordonis, Lili Kotlerman, Zornitsa Kozareva, Wessel Kraaij, Parton Kristen, Lun-Wei Ku, Sudip Kumar Naskar, June-Jei Kuo, Kow Kuroda, Sadao KUROHASH, Kui-Lam Kwok, Han Kyong-Soo

Sobha Lalitha Devi, Wai Lam, Joel Lang, Jun Lang, Matt Lease, Cheongjae Lee, Jung-Tae Lee, Sungjin Lee, Tan Lee, Russell Lee-goldman, Alessandro Lenci, Johannes Leveling, Abby Levenberg, Gina-Anne Levow, Baoli Li, Daifeng Li, Haizhou Li, linlin li, Mu Li, Qing Li, Shoushan Li, Sujian Li, Yunyao Li, Shasha Liao, Yuan-Fu Liao, Chin-Yew Lin, Pierre Lison, Ken Litkowski, Marina Litvak, Bing Liu, Fei Liu, Feifan Liu, Kang Liu, Pengyuan Liu, Qun Liu, Shui Liu, Xiaohua Liu, Yang Liu (UT Dallas), Yang Liu (ICT CAS), Yi Liu, Ying Liu, Yiqun Liu, Zhanyi Liu, Hector Llorens, Elena Lloret, Wai-Kit Lo, QIU Long, Adam Lopez, Yajuan Lu

Bin Ma, Yanjun Ma, Walid Magdy, OKUMURA Manabu, Suresh Manandhar, Maria Antonia Marti, David Martinez, Andre Martins, Yuji Matsumoto, Yutaka Matsuo, Takuya Matsuzaki, Mike Maxwell, Jonathan May, Diana McCarthy, David McClosky, Ryan McDonald, Paul McNamee, Beata Megyesi, Donald Metzler, Haitao Mi, Lukas Michelbacher, Dipti Mishra Sharma, Mandar Mitra, Daichi Mochihashi, Saif Mohammed, Behrang Mohit, Karo Moilanen, Christian Monson, Paul Morarescu, Jin'ichi Murakami, Sung Hyon Myaeng

Seung-Hoon Na, Masaaki Nagata, Mikio Nakano, Preslav Nakov, Jason Naradowsky, Vivi Nastase, Roberto Navigli, Mark-Jan Nederhof, Ani Nenkova, Vincent Ng, Truc-Vien T. Nguyen, Eric Nichols, Tadashi Nomoto, Scott Nowson, Andreas Nuernberger, Pierre Nugues

Diarmuid O Seaghdha, Brendan O'Connor, Neil O'Hare, Stephan Oepen, Kemal Oflazer, Kemal Oflazer, Alice Oh, Naoaki Okazaki, Constantin Orasan, Arantxa Otegi, Myle Ott, Jahna Otterbacher, You Ouyang

Alexandre Patry, Soma Paul, Adam Pease, Ted Peders, Wei Peng, Gerald Penn, Sasa Petrovic, Christian Pietsch, Juan Pino, Matt Post, John Prager, Daniel Preotiuc, Matthew Purver

Vahed Qazvinian, Guang Qiu, Chris Quirk

Altaf Rahman, Ganesh Ramakrishnan, Karthik Raman, AnanthakrishnRamanathan, Sujith Ravi, Bunescu Razvan, Jonathon Read, Marta Recasens, Jeremy Reffin, Roi Reichart, Jason Riesa, Verena Rieser, Arndt Riester, Stefan Riezler, German Rigau, Laura Rimell, Carlos Rodriguez, Kepa Rodriguez, Robert Ross, Michael Roth, Sasha Rush

Kenji Sagae, Benoît Sagot, Agnes Sandor, Anoop Sarkar, Sudeshna Sarkar, Ryohei Sasano, Roser Sauri, Helmut Schmid, Satoshi Sekine, Arulmozi Selvaraj, Pavel Serdyukov, Gao Sheng, Masashi Shimbo, Darla Shockley, Luo Si, Khalil Sima'an, Ben Snyder, Ruihua Song, Young-In Song, Sebastian Spiegler, Valentin Spitkovsky, Caroline Sporleder, Manfred Stede, Mark Steedman, Mark Stevenson, Nicola Stokes, Veselin Stoyanov, Michael Strube, Jian Su, Keh-Yih Su, Zhifang Sui, Aixin Sun, Jun Sun, Weiwei Sun, Mihai Surdeanu

Oscar Tackstrom, Hiroya Takamura, Jianhua Tao, Joel Tetreault, Stefan Thater, Jörg Tiedemann, Ivan Titov, Takenobu Tokunaga, Kentaro Torisawa, Lamia Tounsi, Kristina Toutanova, Roy Tromble, Reut Tsarfaty, Yuen-Hsien Tseng, Hajime Tsukada

Christina Unger, Takehito Utsuro

Antal van den Bosch, Gertjan van Noord, Vasudeva Varma, Silvia Vazquez, Tony Veale, Olga Vechtomova, Sriram Venkatapathy, Yannick Versley, Jesus Vilares, Sami Virpioja, Andreas Vlachos, Piek Vossen

Stephen Wan, Bin Wang, Bo Wang, Dingding Wang, Hsin-Min Wang, Ting Wang, Wei Wang, Zhichun Wang, Taro Watanabe, Yotaro Watanabe, Bonnie Webber, Furu Wei, Richard Wicentowski, Shuly Wintner, Kristian Woodsend, Gang Wu, Zhiyong Wu

Yunqing Xia, Tong Xiao, Xin Xin, Deyi Xiong, Qiu Xipeng, Jun Xu, Ruifeng Xu

Christopher Yang, Grace Yang, Muyun Yang, Yuhang Yang, Zi Yang, Benajiba Yassine, Mark Yatskar, Patrick Ye, Jui-Feng Yeh, Ainur Yessenalina, Scott Wen-tauYih, Bei Yu, Hong Yu

Taras Zagibalov, Benat Zapirain, Alessandra Zarcone, Duo Zhang, Hao Zhang, Jiajun Zhang, Jing Zhang, Lanbo Zhang, Lei Zhang, Min Zhang, Qi Zhang, Yi Zhang (UCSC), Yi Zhang (DFKI), Yue

Zhang, Shiqi Zhao, Tiejun Zhao, Haitao Zheng, Zhi Zhong, Bowen Zhou, Dong Zhou, GuoDong Zhou, Qiang Zhou, Yu Zhou, Muhua Zhu, Xiaodan Zhu, Chengqing Zong



## Table of Contents

### Part A: Full Papers

<i>Analyzing the Dynamics of Research by Extracting Key Aspects of Scientific Papers</i>	
Sonal Gupta and Christopher Manning .....	1
<i>Dependency-directed Tree Kernel-based Protein-Protein Interaction Extraction from Biomedical Literature</i>	
Longhua Qian and Guodong Zhou .....	10
<i>Learning Logical Structures of Paragraphs in Legal Articles</i>	
Ngo Xuan Bach, Nguyen Le Minh, Tran Thi Oanh and Akira Shimazu .....	20
<i>Extracting Pre-ordering Rules from Predicate-Argument Structures</i>	
Xianchao Wu, Katsuhito Sudoh, Kevin Duh, Hajime Tsukada and Masaaki Nagata .....	29
<i>Context-Sensitive Syntactic Source-Reordering by Statistical Transduction</i>	
Maxim Khalilov and Khalil Sima'an .....	38
<i>Discriminative Phrase-based Lexicalized Reordering Models using Weighted Reordering Graphs</i>	
Wang Ling, João Graça, David Martins de Matos, Isabel Trancoso and Alan W Black .....	47
<i>Active Learning Strategies for Support Vector Machines, Application to Temporal Relation Classification</i>	
Seyed Abolghasem Mirroshandel, Gholamreza Ghassem-Sani and Alexis Nasr .....	56
<i>A Fast Accurate Two-stage Training Algorithm for L1-regularized CRFs with Heuristic Line Search Strategy</i>	
Jinlong Zhou, Xipeng Qiu and Xuanjing Huang .....	65
<i>Automatic Topic Model Adaptation for Sentiment Analysis in Structured Domains</i>	
Geoffrey Levine and Gerald DeJong .....	75
<i>Multi-modal Reference Resolution in Situated Dialogue by Integrating Linguistic and Extra-Linguistic Clues</i>	
Ryu Iida, Masaaki Yasuhara and Takenobu Tokunaga .....	84
<i>Single and multi-objective optimization for feature selection in anaphora resolution</i>	
Sriparna Saha, Asif Ekbal, Olga Uryupina and Massimo Poesio .....	93
<i>A Unified Event Coreference Resolution by Integrating Multiple Resolvers</i>	
Bin Chen, Jian Su, Sinno Jialin Pan and Chew Lim Tan .....	102
<i>Handling verb phrase morphology in highly inflected Indian languages for Machine Translation</i>	
Ankur Gandhe, Rashmi Gangadharaiah, Karthik Visweswariah and Ananthakrishnan Ramanathan 111	
<i>Japanese Pronunciation Prediction as Phrasal Statistical Machine Translation</i>	
Jun Hatori and Hisami Suzuki .....	120
<i>Comparing Two Techniques for Learning Transliteration Models Using a Parallel Corpus</i>	
Hassan Sajjad, Nadir Durrani, Helmut Schmid and Alexander Fraser .....	129

<i>A Semantic-Specific Model for Chinese Named Entity Translation</i>	138
Yufeng Chen and Chengqing Zong .....	
<i>Mining Revision Log of Language Learning SNS for Automated Japanese Error Correction of Second Language Learners</i>	147
Tomoya Mizumoto, Mamoru Komachi, Masaaki Nagata and Yuji Matsumoto .....	
<i>Modality Specific Meta Features for Authorship Attribution in Web Forum Posts</i>	156
Thamar Solorio, Sangita Pillay, Sindhu Raghavan and Manuel Montes-Gomez.....	
<i>Keyphrase Extraction from Online News Using Binary Integer Programming</i>	165
Zhuoye Ding, Qi Zhang and Xuanjing Huang.....	
<i>Improving Related Entity Finding via Incorporating Homepages and Recognizing Fine-grained Entities</i>	174
Youzheng Wu, Chiori Hori, Hisashi Kawai and Hideki Kashioka .....	
<i>Enhancing Active Learning for Semantic Role Labeling via Compressed Dependency Trees</i>	183
Chenhua Chen, Alexis Palmer and Caroline Sporleder .....	
<i>Semantic Role Labeling Without Treebanks?</i>	192
Stephen Boxwell, Chris Brew, Jason Baldridge, Dennis Mehay and Sujith Ravi .....	
<i>Japanese Predicate Argument Structure Analysis Exploiting Argument Position and Type</i>	201
Yuta Hayashibe, Mamoru Komachi and Yuji Matsumoto.....	
<i>An Empirical Study on Compositionality in Compound Nouns</i>	210
Siva Reddy, Diana McCarthy and Suresh Manandhar .....	
<i>Feature-Rich Log-Linear Lexical Model for Latent Variable PCFG Grammars</i>	219
Zhongqiang Huang and Mary Harper .....	
<i>Improving Dependency Parsing with Fined-Grained Features</i>	228
Guangyou Zhou, Li Cai, Kang Liu and Jun Zhao.....	
<i>Natural Language Programming Using Class Sequential Rules</i>	237
Cohan Sujay Carlos .....	
<i>Treeblazing: Using External Treebanks to Filter Parse Forests for Parse Selection and Treebanking</i>	246
Andrew MacKinlay, Rebecca Dridan, Dan Flickinger, Stephan Oepen and Timothy Baldwin ..	
<i>Cross-Language Entity Linking</i>	255
Paul McNamee, James Mayfield, Dawn Lawrie, Douglas Oard and David Doermann .....	
<i>Generating Chinese Named Entity Data from a Parallel Corpus</i>	264
Ruiji Fu, Bing Qin and Ting Liu .....	
<i>Learning the Latent Topics for Question Retrieval in Community QA</i>	273
Li Cai, Guangyou Zhou, Kang Liu and Jun Zhao.....	
<i>Identifying Event Descriptions using Co-training with Online News Summaries</i>	282
William Yang Wang, Kapil Thadani and Kathleen McKeown.....	
<i>Automatic Labeling of Voiced Consonants for Morphological Analysis of Modern Japanese Literature</i>	292
Teruaki Oka, Mamoru Komachi, Toshinobu Ogiso and Yuji Matsumoto .....	

<i>S<sup>3</sup> - Statistical Sandhi Splitting</i>	301
Abhiram Natarajan and Eugene Charniak .....	301
<i>Improving Chinese Word Segmentation and POS Tagging with Semi-supervised Methods Using Large Auto-Analyzed Data</i>	
Yiou Wang, Jun'ichi Kazama, Yoshimasa Tsuruoka, Wenliang Chen, Yujie Zhang and Kentaro Torisawa .....	309
<i>CODACT: Towards Identifying Orthographic Variants in Dialectal Arabic</i>	
Pradeep Dasigi and Mona Diab .....	318
<i>Enhancing the HL-SOT Approach to Sentiment Analysis via a Localized Feature Selection Framework</i>	
Wei and Jon Atle Gulla.....	327
<i>Fine-Grained Sentiment Analysis with Structural Features</i>	
Cäcilia Zirn, Mathias Niepert, Heiner Stuckenschmidt and Michael Strube .....	336
<i>Predicting Opinion Dependency Relations for Opinion Analysis</i>	
Lun-Wei Ku, Ting-Hao Huang and Hsin-Hsi Chen .....	345
<i>Detecting and Blocking False Sentiment Propagation</i>	
Hye-Jin Min and Jong C. Park .....	354
<i>Efficient induction of probabilistic word classes with LDA</i>	
Grzegorz Chrupala.....	363
<i>Quality-biased Ranking of Short Texts in Microblogging Services</i>	
Minlie Huang, Yi Yang and Xiaoyan Zhu .....	373
<i>Labeling Unlabeled Data using Cross-Language Guided Clustering</i>	
Sachindra Joshi, Danish Contractor and Sumit Negi .....	383
<i>Extracting Relation Descriptors with Conditional Random Fields</i>	
Yaliang Li, Jing Jiang, Hai Leong Chieu and Kian Ming A. Chai .....	392
<i>Attribute Extraction from Synthetic Web Search Queries</i>	
Marius Pasca .....	401
<i>Japanese Abbreviation Expansion with Query and Clickthrough Logs</i>	
Kei Uchiumi, Mamoru Komachi, Keigo Machinaga, Toshiyuki Maezawa, Toshinori Satou and Yoshinori Kobayashi .....	410
<i>Mining Parallel Documents Using Low Bandwidth and High Precision CLIR from the Heterogeneous Web</i>	
Simon Shi, Pascale Fung, Emmanuel Prochasson, Chi-kiu Lo and Dekai Wu.....	420
<i>Crawling Back and Forth: Using Back and Out Links to Locate Bilingual Sites</i>	
Luciano Barbosa, Srinivas Bangalore and Vivek Kumar Rangarajan Sridhar .....	429
<i>Grammar Induction from Text Using Small Syntactic Prototypes</i>	
Prachya Boonkwan and Mark Steedman .....	438
<i>Transferring Syntactic Relations from English to Hindi Using Alignments on Local Word Groups</i>	
Aswarth Dara, Prashanth Mannem, Hemanth Sagar Bayyapu and Avinesh PVS .....	447

<i>Generative Modeling of Coordination by Factoring Parallelism and Selectional Preferences</i>	456
Daisuke Kawahara and Sadao Kurohashi .....	
<i>Syntactic Parsing for Ranking-Based Coreference Resolution</i>	465
Altaf Rahman and Vincent Ng .....	
<i>TriS: A Statistical Sentence Simplifier with Log-linear Models and Margin-based Discriminative Training</i>	474
Nguyen Bach, Qin Gao, Stephan Vogel and Alex Waibel .....	
<i>Social Summarization via Automatically Discovered Social Context</i>	483
Po Hu, Cheng Sun, Longfei Wu, Donghong Ji and Chong Teng .....	
<i>Simultaneous Clustering and Noise Detection for Theme-based Summarization</i>	491
Xiaoyan Cai, Renxian Zhang, Dehong Gao and Wenjie Li .....	
<i>Extractive Summarization Method for Contact Center Dialogues based on Call Logs</i>	500
Akihiro Tamura, Kai Ishikawa, Masahiro Saikou and Masaaki Tsuchida .....	
<i>Indexing Spoken Documents with Hierarchical Semantic Structures: Semantic Tree-to-string Alignment Models</i>	509
Xiaodan Zhu, Colin Cherry and Gerald Penn .....	
<i>Structured and Extended Named Entity Evaluation in Automatic Speech Transcriptions</i>	518
Olivier Galibert, Sophie Rosset, Cyril Grouin, Pierre Zweigenbaum and Ludovic Quintard .....	
<i>Normalising Audio Transcriptions for Unwritten Languages</i>	527
Adel Foda and Steven Bird .....	
<i>Similarity Based Language Model Construction for Voice Activated Open-Domain Question Answering</i>	536
Istvan Varga, Kiyonori Ohtake, Kentaro Torisawa, Stijn De Saeger, Teruhisa Misu, Shigeki Matsuda and Jun'ichi Kazama .....	
<i>The application of chordal graphs to inferring phylogenetic trees of languages</i>	545
Jessica Enright and Grzegorz Kondrak .....	
<i>Cross-domain Feature Selection for Language Identification</i>	553
Marco Lui and Timothy Baldwin .....	
<i>A Wikipedia-LDA Model for Entity Linking with Batch Size Changing Instance Selection</i>	562
Wei Zhang, Jian Su and Chew-Lim Tan .....	
<i>Discovering Latent Concepts and Exploiting Ontological Features for Semantic Text Search</i>	571
Vuong M. Ngo and Tru H. Cao .....	
<i>CLGVSM: Adapting Generalized Vector Space Model to Cross-lingual Document Clustering</i>	580
Guoyu Tang, Yunqing Xia, Min Zhang, Haizhou Li and Fang Zheng .....	
<i>Thread Cleaning and Merging for Microblog Topic Detection</i>	589
Jianfeng Zhang, Yunqing Xia, Bin Ma, Jianmin Yao and Yu Hong .....	
<i>Training a BN-based user model for dialogue simulation with missing data</i>	598
Stéphane Rossignol, Olivier Pietquin and Michel Ianotto .....	
<i>Automatic identification of general and specific sentences by leveraging discourse annotations</i>	605
Annie Louis and Ani Nenkova .....	

<i>A POS-based Ensemble Model for Cross-domain Sentiment Classification</i>	614
Rui Xia and Chengqing Zong .....	614
<i>Ensemble-style Self-training on Citation Classification</i>	623
Cailing Dong and Ulrich Schäfer .....	623
<i>Back to the Roots of Genres: Text Classification by Language Function</i>	632
Henning Wachsmuth and Kathrin Bujna .....	632
<i>Transductive Minimum Error Rate Training for Statistical Machine Translation</i>	641
Yinggong Zhao, Shujie Liu, Yangsheng Ji, Jiajun Chen and Guodong Zhou .....	641
<i>Distributed Minimum Error Rate Training of SMT using Particle Swarm Optimization</i>	649
Jun Suzuki, Kevin Duh and Masaaki Nagata.....	649
<i>Going Beyond Word Cooccurrences in Global Lexical Selection for Statistical Machine Translation using a Multilayer Perceptron</i>	658
Alexandre Patry and Philippe Langlais.....	658
<i>System Combination Using Discriminative Cross-Adaptation</i>	667
Jacob Devlin, Antti-Veikko Rosti, Sankaranarayanan Ananthakrishnan and Spyros Matsoukas .	667
<i>Word Sense Disambiguation by Combining Labeled Data Expansion and Semi-Supervised Learning Method</i>	676
Sanae Fujita and Akinori Fujino.....	676
<i>Combining ConceptNet and WordNet for Word Sense Disambiguation</i>	686
Junpeng Chen and Juan Liu.....	686
<i>It Takes Two to Tango: A Bilingual Unsupervised Approach for Estimating Sense Distributions using Expectation Maximization</i>	695
Mitesh M Khapra, Salil Joshi and Pushpak Bhattacharyya .....	695
<i>Dynamic and Static Prototype Vectors for Semantic Composition</i>	705
Siva Reddy, Ioannis Klapaftis, Diana McCarthy and Suresh Manandhar .....	705
<i>Using Prediction from Sentential Scope to Build a Pseudo Co-Testing Learner for Event Extraction</i>	714
Shasha Liao and Ralph Grishman .....	714
<i>Text Segmentation and Graph-based Method for Template Filling in Information Extraction</i>	723
Ludovic Jean-Louis, Romaric Besançon and Olivier Ferret.....	723
<i>Joint Distant and Direct Supervision for Relation Extraction</i>	732
Truc-Vien T. Nguyen and Alessandro Moschitti .....	732
<i>A Cross-lingual Annotation Projection-based Self-supervision Approach for Open Information Extraction</i>	741
Seokhwan Kim, Minwoo Jeong, Jonghoon Lee and Gary Geunbae Lee .....	741
<i>Exploring Difficulties in Parsing Imperatives and Questions</i>	749
Tadayoshi Hara, Takuya Matsuzaki, Yusuke Miyao and Jun'ichi Tsujii .....	749
<i>A Discriminative Approach to Japanese Zero Anaphora Resolution with Large-scale Lexicalized Case Frames</i>	758
Ryohei Sasano and Sadao Kurohashi .....	758

<i>An Empirical Comparison of Unknown Word Prediction Methods</i>	Kostadin Cholakov, Gertjan van Noord, Valia Kordoni and Yi Zhang .....	767
<i>Training Dependency Parsers from Partially Annotated Corpora</i>	Daniel Flannery, Yusuke Miayo, Graham Neubig and Shinsuke Mori .....	776
<i>A Breadth-First Representation for Tree Matching in Large Scale Forest-Based Translation</i>	Sumukh Ghodke, Steven Bird and Rui Zhang .....	785
<i>Bayesian Subtree Alignment Model based on Dependency Trees</i>	Toshiaki Nakazawa and Sadao Kurohashi .....	794
<i>Enriching SMT Training Data via Paraphrasing</i>	Wei He, Shiqi Zhao, Haifeng Wang and Ting Liu .....	803
<i>Translation Quality Indicators for Pivot-based Statistical MT</i>	Michael Paul and Eiichiro Sumita .....	811
<i>Source Error-Projection for Sample Selection in Phrase-Based SMT for Resource-Poor Languages</i>	Sankaranarayanan Ananthakrishnan, Shiv Vitaladevuni, Rohit Prasad and Prem Natarajan ....	819
<i>A Named Entity Recognition Method based on Decomposition and Concatenation of Word Chunks</i>	Tomoya Iwakura, Hiroya Takamura and Manabu Okumura.....	828
<i>Extract Chinese Unknown Words from a Large-scale Corpus Using Morphological and Distributional Evidences</i>	Kaixu Zhang, Ruining Wang, Ping Xue and Maosong Sun .....	837
<i>Entity Disambiguation Using a Markov-Logic Network</i>	Hong-Jie Dai, Richard Tzong-Han Tsai and Wen-Lian Hsu .....	846
<i>Named Entity Recognition in Chinese News Comments on the Web</i>	Xiaojun Wan, Liang Zong, Xiaojiang Huang, Tengfei Ma, Houping Jia, Yuqian Wu and Jianguo Xiao .....	856
<i>Clustering Semantically Equivalent Words into Cognate Sets in Multilingual Lists</i>	Bradley Hauer and Grzegorz Kondrak .....	865
<i>Extending WordNet with Hypernyms and Siblings Acquired from Wikipedia</i>	Ichiro Yamada, Jong-Hoon Oh, Chikara Hashimoto, Kentaro Torisawa, Jun'ichi Kazama, Stijn De Saeger and Takuya Kawada .....	874
<i>What Psycholinguists Know About Chemistry: Aligning Wiktionary and WordNet for Increased Domain Coverage</i>	Christian M. Meyer and Iryna Gurevych .....	883
<i>From News to Comment: Resources and Benchmarks for Parsing the Language of Web 2.0</i>	Jennifer Foster, Ozlem Cetinoglu, Joachim Wagner, Joseph Le Roux, Joakim Nivre, Deirdre Hogan and Josef van Genabith .....	893
<i>Toward Finding Semantic Relations not Written in a Single Sentence: An Inference Method using Auto-Discovered Rules</i>	Masaaki Tsuchida, Kentaro Torisawa, Stijn De Saeger, Jong Hoon Oh, Jun'ichi Kazama, Chikara Hashimoto and Hayato Ohwada.....	902

<i>Fleshing it out: A Supervised Approach to MWE-token and MWE-type Classification</i>	911
Richard Fothergill and Timothy Baldwin .....	
<i>Identification of relations between answers with global constraints for Community-based Question Answering services</i>	920
Hikaru Yokono, Takaaki Hasegawa, Genichiro Kikui and Manabu Okumura .....	
<i>Automatically Generating Questions from Queries for Community-based Question Answering</i>	929
Shiqi Zhao, Haifeng Wang, Chao Li, Ting Liu and Yi Guan .....	
<i>Question classification based on an extended class sequential rule model</i>	938
Zijing Hui, Juan Liu and Lumei Ouyang .....	
<i>K2Q: Generating Natural Language Questions from Keywords with User Refinements</i>	947
Zhicheng Zheng, Xiance Si, Edward Chang and Xiaoyan Zhu .....	
<i>Answering Complex Questions via Exploiting Social Q&amp;A Collection</i>	956
Youzheng Wu, Chiori Hori, Hisashi Kawai and Hideki Kashioka .....	
<i>Safety Information Mining — What can NLP do in a disaster—</i>	965
Graham Neubig, Yuichiro Matsubayashi, Masato Hagiwara and Koji Murakami .....	
<i>A Character-Level Machine Translation Approach for Normalization of SMS Abbreviations</i>	974
Deana Pennell and Yang Liu .....	
<i>Using Text Reviews for Product Entity Completion</i>	983
Mrinmaya Sachan, Tanveer Faruquie, L. V. Subramaniam and Mukesh Mohania .....	
<i>Mining bilingual topic hierarchies from unaligned text</i>	992
Sumit Negi .....	
<i>Efficient Near-Duplicate Detection for Q&amp;A Forum</i>	1001
Yan Wu, Qi Zhang and Xuanjing Huang .....	
<i>A Graph-based Method for Entity Linking</i>	1010
Yuhang Guo, Wanxiang Che, Ting Liu and Sheng Li .....	
<i>Harvesting Related Entities with a Search Engine</i>	1019
Shuqi Sun, Shiqi Zhao, Muyun Yang, Haifeng Wang and Sheng Li .....	
<i>Acquiring Strongly-related Events using Predicate-argument Co-occurring Statistics and Case Frames</i>	1028
Tomohide Shibata and Sadao Kurohashi .....	
<i>Relevance Feedback using Latent Information</i>	1037
Jun Harashima and Sadao Kurohashi .....	
<i>Passage Retrieval for Information Extraction using Distant Supervision</i>	1046
Wei Xu, Ralph Grishman and Le Zhao .....	
<i>Using Context Inference to Improve Sentence Ordering for Multi-document Summarization</i>	1055
Peifeng Li, Guangxi Deng and Qiaoming Zhu .....	
<i>Enhancing extraction based summarization with outside word space</i>	1062
Christian Smith and Arne Jönsson .....	

<i>Shallow Discourse Parsing with Conditional Random Fields</i>	Sucheta Ghosh, Richard Johansson, Giuseppe Riccardi and Sara Tonelli .....	1071
<i>Relational Lasso —An Improved Method Using the Relations Among Features—</i>	Kotaro Kitagawa and Kumiko Tanaka-Ishii .....	1080
<i>Enhance Top-down method with Meta-Classification for Very Large-scale Hierarchical Classification</i>	Xiao-lin Wang, Hai Zhao and Bao-Liang Lu .....	1089
<i>Using Syntactic and Shallow Semantic Kernels to Improve Multi-Modality Manifold-Ranking for Topic-Focused Multi-Document Summarization</i>	Yllias Chali, Sadid A. Hasan and Kaisar Imam .....	1098
<i>Automatic Determination of a Domain Adaptation Method for Word Sense Disambiguation Using Decision Tree Learning</i>	Kanako Komiya and Manabu Okumura .....	1107
<i>Learning from Chinese-English Parallel Data for Chinese Tense Prediction</i>	Feifan Liu, Fei Liu and Yang Liu .....	1116
<i>Jointly Extracting Japanese Predicate-Argument Relation with Markov Logic</i>	Katsumasa Yoshikawa, Masayuki Asahara and Yuji Matsumoto .....	1125
<i>Word Meaning in Context: A Simple and Effective Vector Model</i>	Stefan Thater, Hagen Fürstenau and Manfred Pinkal .....	1134
<i>Automatic Analysis of Semantic Coherence in Academic Abstracts Written in Portuguese</i>	Vinícius Mourão Alves de Souza and Valéria Delisandra Feltrim .....	1144
<i>Sentence Subjectivity Detection with Weakly-Supervised Learning</i>	Chenghua Lin, Yulan He and Richard Everson .....	1153
<i>Opinion Expression Mining by Exploiting Keyphrase Extraction</i>	Gábor Berend .....	1162
<i>Extracting Resource Terms for Sentiment Analysis</i>	Lei Zhang and Bing Liu .....	1171
<i>Towards Context-Based Subjectivity Analysis</i>	Farah Benamara, Baptiste Chardon, Yannick Mathieu and Vladimir Popescu .....	1180
<i>Compression Methods by Code Mapping and Code Dividing for Chinese Dictionary Stored in a Double-Array Trie</i>	Huidan Liu, Minghua Nuo, Longlong Ma, Jian Wu and Yeping He .....	1189
<i>Functional Elements and POS Categories</i>	Qiuye Zhao and Mitch Marcus .....	1198
<i>Joint Alignment and Artificial Data Generation: An Empirical Study of Pivot-based Machine Transliteration</i>	Min Zhang, Xiangyu Duan, Ming Liu, Yunqing Xia and Haizhou Li .....	1207
<i>Incremental Joint POS Tagging and Dependency Parsing in Chinese</i>	Jun Hatori, Takuya Matsuzaki, Yusuke Miyao and Jun'ichi Tsujii .....	1216

<i>Extending the adverbial coverage of a NLP oriented resource for French</i>	1225
Elsa Tolone and Stavroula Voyatzis .....	1225
<i>Linguistic Phenomena, Analyses, and Representations: Understanding Conversion between Treebanks</i>	1234
Rajesh Bhatt, Owen Rambow and Fei Xia.....	1234
<i>Automatic Transformation of the Thai Categorial Grammar Treebank to Dependency Trees</i>	1243
Christian Rishøj, Taneth Ruangrajjitpakorn, Prachya Boonkwan and Thepchai Supnithi .....	1243
<i>Parse Reranking Based on Higher-Order Lexical Dependencies</i>	1251
Zhiguo Wang and Chengqing Zong.....	1251
<i>Improving Part-of-speech Tagging for Context-free Parsing</i>	1260
Xiao Chen and Chunyu Kit .....	1260
<i>Models Cascade for Tree-Structured Named Entity Detection</i>	1269
Marco Dinarelli and Sophie Rosset .....	1269
<i>Clausal parsing helps data-driven dependency parsing: Experiments with Hindi</i>	1279
Samar Husain, Phani Gadde, Joakim Nivre and Rajeev Sangal .....	1279
<i>Word-reordering for Statistical Machine Translation Using Trigram Language Model</i>	1288
Jing He and Hongyu Liang .....	1288
<i>Extracting Hierarchical Rules from a Weighted Alignment Matrix</i>	1294
Zhaopeng Tu, Yang Liu, Qun Liu and Shouxun Lin .....	1294
<i>Integration of Reduplicated Multiword Expressions and Named Entities in a Phrase Based Statistical Machine Translation System</i>	1304
Thoudam Doren Singh and Sivaji Bandyopadhyay .....	1304
<i>Regularizing Mono- and Bi-Word Models for Word Alignment</i>	1313
Thomas Schoenemann .....	1313
<i>Parametric Weighting of Parallel Data for Statistical Machine Translation</i>	1323
Kashif Shah, Loïc Barrault and Holger Schwenk.....	1323
<i>An Effective and Robust Framework for Transliteration Exploration</i>	1332
EA-EE JAN, Niyu Ge, Shih-Hsiang Lin and Berlin Chen .....	1332

## **Part B: Short Papers**

<i>An Evaluation of Alternative Strategies for Implementing Dialogue Policies Using Statistical Classification and Hand-Authored Rules</i>	
David DeVault, Anton Leuski and Kenji Sagae .....	1341
<i>Reducing Asymmetry between language-pairs to Improve Alignment and Translation Quality</i>	
Rashmi Gangadharaiyah .....	1346
<i>Clause-Based Reordering Constraints to Improve Statistical Machine Translation</i>	
Ananthakrishnan Ramanathan, Pushpak Bhattacharyya, Karthik Visweswariah, Kushal Ladha and Ankur Gandhe .....	1351
<i>Generalized Minimum Bayes Risk System Combination</i>	
Kevin Duh, Katsuhito Sudoh, Xianchao Wu, Hajime Tsukada and Masaaki Nagata .....	1356
<i>Enhancing scarce-resource language translation through pivot combinations</i>	
Marta R. Costa-jussà, Carlos Henríquez and Rafael E. Banchs .....	1361
<i>A Baseline System for Chinese Near-Synonym Choice</i>	
Liang-Chih Yu, Wei-Nan Chien and Shih-Ting Chen .....	1366
<i>Cluster Labelling based on Concepts in a Machine-Readable Dictionary</i>	
Fumiyo Fukumoto and Yoshimi Suzuki .....	1371
<i>Text Patterns and Compression Models for Semantic Class Learning</i>	
Chung-Yao Chuang, Yi-Hsun Lee and Wen-Lian Hsu .....	1376
<i>Potts Model on the Case Fillers for Word Sense Disambiguation</i>	
Hiroya Takamura and Manabu Okumura .....	1382
<i>Improving Word Sense Induction by Exploiting Semantic Relevance</i>	
Zhenzhong Zhang and Le Sun .....	1387
<i>Predicting Word Clipping with Latent Semantic Analysis</i>	
Julian Brooke, Tong Wang and Graeme Hirst .....	1392
<i>A Semantic Relatedness Measure Based on Combined Encyclopedic, Ontological and Collocational Knowledge</i>	
Yannis Haralambous and Vitaly Klyuev .....	1397
<i>Going Beyond Text: A Hybrid Image-Text Approach for Measuring Word Relatedness</i>	
Chee Wee Leong and Rada Mihalcea .....	1403
<i>Domain Independent Model for Product Attribute Extraction from User Reviews using Wikipedia</i>	
Sudheer Kovelamudi, Sethu Ramalingam, Arpit Sood and Vasudeva Varma .....	1408
<i>Finding Problem Solving Threads in Online Forum</i>	
Zhonghua Qu and Yang Liu .....	1413

<i>Compiling Learner Corpus Data of Linguistic Output and Language Processing in Speaking, Listening, Writing, and Reading</i>	1418
Katsunori Kotani, Takehiko Yoshimi, Hiroaki Nanjo and Hitoshi Isahara .....	1418
<i>Mining the Sentiment Expectation of Nouns Using Bootstrapping Method</i>	1423
Miaomiao Wen and Yunfang Wu .....	1423
<i>An Analysis of Questions in a Q&amp;A Site Resubmitted Based on Indications of Unclear Points of Original Questions</i>	1428
Masahiro Kojima, Yasuhiko Watanabe and Yoshihiro Okada .....	1428
<i>Diversifying Information Needs in Results of Question Retrieval</i>	1432
Yaoyun Zhang, Xiaolong Wang, Xuan Wang, Ruifeng Xu, Jun Xu and ShiXi Fan .....	1432
<i>Beyond Normalization: Pragmatics of Word Form in Text Messages</i>	1437
Tyler Baldwin and Joyce Chai .....	1437
<i>Chinese Discourse Relation Recognition</i>	1442
Hen-Hsen Huang and Hsin-Hsi Chen .....	1442
<i>Improving Chinese POS Tagging with Dependency Parsing</i>	1447
Zhenghua Li, Wanxiang Che and Ting Liu .....	1447
<i>Exploring self training for Hindi dependency parsing</i>	1452
Rahul Goutam and Bharat Ram Ambati.....	1452
<i>Reduction of Search Space to Annotate Monolingual Corpora</i>	1457
Prajol Shrestha, Christine Jacquin and Beatrice Daille .....	1457
<i>Toward a Parallel Corpus of Spoken Cantonese and Written Chinese</i>	1462
John Lee .....	1462
<i>Query Expansion for IR using Knowledge-Based Relatedness</i>	1467
Arantxa Otegi, Xabier Arregi and Eneko Agirre .....	1467
<i>Word Sense Disambiguation Corpora Acquisition via Confirmation Code</i>	1472
Wanxiang Che and Ting Liu .....	1472



# Conference Program

**November 9**

**(9:00-9:20) Welcome**

**(9:20-10:20) Keynote – Mengqiu Wang (Baidu)**

**(10:20 - 10:50) Coffee Break**

**(10:50-12:05) Text Mining I**

*Analyzing the Dynamics of Research by Extracting Key Aspects of Scientific Papers*  
Sonal Gupta and Christopher Manning

*Dependency-directed Tree Kernel-based Protein-Protein Interaction Extraction from Biomedical Literature*

Longhua Qian and Guodong Zhou

*Learning Logical Structures of Paragraphs in Legal Articles*

Ngo Xuan Bach, Nguyen Le Minh, Tran Thi Oanh and Akira Shimazu

**(10:50-12:05) Machine Translation I**

*Extracting Pre-ordering Rules from Predicate-Argument Structures*

Xianchao Wu, Katsuhito Sudoh, Kevin Duh, Hajime Tsukada and Masaaki Nagata

*Context-Sensitive Syntactic Source-Reordering by Statistical Transduction*

Maxim Khalilov and Khalil Sima'an

*Discriminative Phrase-based Lexicalized Reordering Models using Weighted Reordering Graphs*

Wang Ling, João Graça, David Martins de Matos, Isabel Trancoso and Alan W Black

## **November 9 (continued)**

### **(10:50-12:05) Machine Learning I**

*Active Learning Strategies for Support Vector Machines, Application to Temporal Relation Classification*

Seyed Abolghasem Mirroshandel, Gholamreza Ghassem-Sani and Alexis Nasr

*A Fast Accurate Two-stage Training Algorithm for L1-regularized CRFs with Heuristic Line Search Strategy*

Jinlong Zhou, Xipeng Qiu and Xuanjing Huang

*Automatic Topic Model Adaptation for Sentiment Analysis in Structured Domains*

Geoffrey Levine and Gerald DeJong

### **(10:50-12:05) Discourse / Dialog I**

*Multi-modal Reference Resolution in Situated Dialogue by Integrating Linguistic and Extra-Linguistic Clues*

Ryu Iida, Masaaki Yasuhara and Takenobu Tokunaga

*Single and multi-objective optimization for feature selection in anaphora resolution*

Sriparna Saha, Asif Ekbal, Olga Uryupina and Massimo Poesio

*A Unified Event Coreference Resolution by Integrating Multiple Resolvers*

Bin Chen, Jian Su, Sinno Jialin Pan and Chew Lim Tan

### **(12:05-13:30) Lunch**

### **(13:30-15:10) Machine Translation II**

*Handling verb phrase morphology in highly inflected Indian languages for Machine Translation*

Ankur Gandhe, Rashmi Gangadharaiah, Karthik Viswesvariah and Ananthakrishnan Ramamathan

*Japanese Pronunciation Prediction as Phrasal Statistical Machine Translation*

Jun Hatori and Hisami Suzuki

*Comparing Two Techniques for Learning Transliteration Models Using a Parallel Corpus*

Hassan Sajjad, Nadir Durrani, Helmut Schmid and Alexander Fraser

*A Semantic-Specific Model for Chinese Named Entity Translation*

Yufeng Chen and Chengqing Zong

**November 9 (continued)**

**(13:30-15:10) Text Mining II**

*Mining Revision Log of Language Learning SNS for Automated Japanese Error Correction of Second Language Learners*

Tomoya Mizumoto, Mamoru Komachi, Masaaki Nagata and Yuji Matsumoto

*Modality Specific Meta Features for Authorship Attribution in Web Forum Posts*

Thamar Solorio, Sangita Pillay, Sindhu Raghavan and Manuel Montes-Gomez

*Keyphrase Extraction from Online News Using Binary Integer Programming*

Zhuoye Ding, Qi Zhang and Xuanjing Huang

*Improving Related Entity Finding via Incorporating Homepages and Recognizing Fine-grained Entities*

Youzheng Wu, Chiori Hori, Hisashi Kawai and Hideki Kashioka

**(13:30-15:10) Semantics I**

*Enhancing Active Learning for Semantic Role Labeling via Compressed Dependency Trees*

Chenhua Chen, Alexis Palmer and Caroline Sporleder

*Semantic Role Labeling Without Treebanks?*

Stephen Boxwell, Chris Brew, Jason Baldridge, Dennis Mehay and Sujith Ravi

*Japanese Predicate Argument Structure Analysis Exploiting Argument Position and Type*

Yuta Hayashibe, Mamoru Komachi and Yuji Matsumoto

*An Empirical Study on Compositionality in Compound Nouns*

Siva Reddy, Diana McCarthy and Suresh Manandhar

**November 9 (continued)**

**(13:30-15:10) Syntax I**

*Feature-Rich Log-Linear Lexical Model for Latent Variable PCFG Grammars*

Zhongqiang Huang and Mary Harper

*Improving Dependency Parsing with Fined-Grained Features*

Guangyou Zhou, Li Cai, Kang Liu and Jun Zhao

*Natural Language Programming Using Class Sequential Rules*

Cohan Sujay Carlos

*Treeblazing: Using External Treebanks to Filter Parse Forests for Parse Selection and Treebanking*

Andrew MacKinlay, Rebecca Dridan, Dan Flickinger, Stephan Oepen and Timothy Baldwin

**(15:10-15:30) Coffee Break**

**(15:30-17:10) Text Mining / Information Extraction**

*Cross-Language Entity Linking*

Paul McNamee, James Mayfield, Dawn Lawrie, Douglas Oard and David Doermann

*Generating Chinese Named Entity Data from a Parallel Corpus*

Ruiji Fu, Bing Qin and Ting Liu

*Learning the Latent Topics for Question Retrieval in Community QA*

Li Cai, Guangyou Zhou, Kang Liu and Jun Zhao

*Identifying Event Descriptions using Co-training with Online News Summaries*

William Yang Wang, Kapil Thadani and Kathleen McKeown

**November 9 (continued)**

**(15:30-17:10) Phonology / Morphology I**

*Automatic Labeling of Voiced Consonants for Morphological Analysis of Modern Japanese Literature*

Teruaki Oka, Mamoru Komachi, Toshinobu Ogiso and Yuji Matsumoto

*S<sup>3</sup> - Statistical Sandhi Splitting*

Abhiram Natarajan and Eugene Charniak

*Improving Chinese Word Segmentation and POS Tagging with Semi-supervised Methods Using Large Auto-Analyzed Data*

Yiou Wang, Jun'ichi Kazama, Yoshimasa Tsuruoka, Wenliang Chen, Yujie Zhang and Kentaro Torisawa

*CODACT: Towards Identifying Orthographic Variants in Dialectal Arabic*

Pradeep Dasigi and Mona Diab

**(15:30-17:10) Sentiment I**

*Enhancing the HL-SOT Approach to Sentiment Analysis via a Localized Feature Selection Framework*

Wei and Jon Atle Gulla

*Fine-Grained Sentiment Analysis with Structural Features*

Cäcilia Zirn, Mathias Niepert, Heiner Stuckenschmidt and Michael Strube

*Predicting Opinion Dependency Relations for Opinion Analysis*

Lun-Wei Ku, Ting-Hao Huang and Hsin-Hsi Chen

*Detecting and Blocking False Sentiment Propagation*

Hye-Jin Min and Jong C. Park

## **November 9 (continued)**

### **(15:30-17:10) Machine Learning II**

*Efficient induction of probabilistic word classes with LDA*  
Grzegorz Chrupala

*Quality-biased Ranking of Short Texts in Microblogging Services*  
Minlie Huang, Yi Yang and Xiaoyan Zhu

*Labeling Unlabeled Data using Cross-Language Guided Clustering*  
Sachindra Joshi, Danish Contractor and Sumit Negi

*Extracting Relation Descriptors with Conditional Random Fields*  
Yaliang Li, Jing Jiang, Hai Leong Chieu and Kian Ming A. Chai

### **(18:00-21:00) Poster/Demo (Pre Function Level 1) + Reception**

## **November 10**

**(9:00-10:00) Keynote – Matt Lease (University of Texas)**

**(10:00 - 10:30) Coffee Break**

**(10:30 - 12:10) Information Retrieval I**

*Attribute Extraction from Synthetic Web Search Queries*  
Marius Pasca

*Japanese Abbreviation Expansion with Query and Clickthrough Logs*  
Kei Uchiumi, Mamoru Komachi, Keigo Machinaga, Toshiyuki Maezawa, Toshinori Satou and Yoshinori Kobayashi

*Mining Parallel Documents Using Low Bandwidth and High Precision CLIR from the Heterogeneous Web*  
Simon Shi, Pascale Fung, Emmanuel Prochasson, Chi-kiu Lo and Dekai Wu

*Crawling Back and Forth: Using Back and Out Links to Locate Bilingual Sites*  
Luciano Barbosa, Srinivas Bangalore and Vivek Kumar Rangarajan Sridhar

**November 10 (continued)**

**(10:30 - 12:10) Syntax II**

*Grammar Induction from Text Using Small Syntactic Prototypes*

Prachya Boonkwan and Mark Steedman

*Transferring Syntactic Relations from English to Hindi Using Alignments on Local Word Groups*

Aswarth Dara, Prashanth Mannem, Hemanth Sagar Bayyrapu and Avinesh PVS

*Generative Modeling of Coordination by Factoring Parallelism and Selectional Preferences*

Daisuke Kawahara and Sadao Kurohashi

*Syntactic Parsing for Ranking-Based Coreference Resolution*

Altaf Rahman and Vincent Ng

**(10:30 - 12:10) Generation / Summarization**

*TriS: A Statistical Sentence Simplifier with Log-linear Models and Margin-based Discriminative Training*

Nguyen Bach, Qin Gao, Stephan Vogel and Alex Waibel

*Social Summarization via Automatically Discovered Social Context*

Po Hu, Cheng Sun, Longfei Wu, Donghong Ji and Chong Teng

*Simultaneous Clustering and Noise Detection for Theme-based Summarization*

Xiaoyan Cai, Renxian Zhang, Dehong Gao and Wenjie Li

*Extractive Summarization Method for Contact Center Dialogues based on Call Logs*

Akihiro Tamura, Kai Ishikawa, Masahiro Saikou and Masaaki Tsuchida

**November 10 (continued)**

**(10:30 - 12:10) Spoken Language Processing**

*Indexing Spoken Documents with Hierarchical Semantic Structures: Semantic Tree-to-string Alignment Models*

Xiaodan Zhu, Colin Cherry and Gerald Penn

*Structured and Extended Named Entity Evaluation in Automatic Speech Transcriptions*

Olivier Galibert, Sophie Rosset, Cyril Grouin, Pierre Zweigenbaum and Ludovic Quintard

*Normalising Audio Transcriptions for Unwritten Languages*

Adel Foda and Steven Bird

*Similarity Based Language Model Construction for Voice Activated Open-Domain Question Answering*

Istvan Varga, Kiyonori Ohtake, Kentaro Torisawa, Stijn De Saeger, Teruhisa Misu, Shigeki Matsuda and Jun'ichi Kazama

**(12:10-13:55) Lunch**

**(13:55-15:10) Machine Learning III**

*The application of chordal graphs to inferring phylogenetic trees of languages*

Jessica Enright and Grzegorz Kondrak

*Cross-domain Feature Selection for Language Identification*

Marco Lui and Timothy Baldwin

*A Wikipedia-LDA Model for Entity Linking with Batch Size Changing Instance Selection*

Wei Zhang, Jian Su and Chew-Lim Tan

**November 10 (continued)**

**(13:55-15:10) Information Retrieval II**

*Discovering Latent Concepts and Exploiting Ontological Features for Semantic Text Search*

Vuong M. Ngo and Tru H. Cao

*CLGVSM: Adapting Generalized Vector Space Model to Cross-lingual Document Clustering*

Guoyu Tang, Yunqing Xia, Min Zhang, Haizhou Li and Fang Zheng

*Thread Cleaning and Merging for Microblog Topic Detection*

Jianfeng Zhang, Yunqing Xia, Bin Ma, Jianmin Yao and Yu Hong

**(13:55-15:10) Dialog/Discourse II**

*Training a BN-based user model for dialogue simulation with missing data*

Stéphane Rossignol, Olivier Pietquin and Michel Ianotto

*Automatic identification of general and specific sentences by leveraging discourse annotations*

Annie Louis and Ani Nenkova

*An Evaluation of Alternative Strategies for Implementing Dialogue Policies Using Statistical Classification and Hand-Authored Rules*

David DeVault, Anton Leuski and Kenji Sagae

**(13:55-15:10) Sentiment II**

*A POS-based Ensemble Model for Cross-domain Sentiment Classification*

Rui Xia and Chengqing Zong

*Ensemble-style Self-training on Citation Classification*

Cailing Dong and Ulrich Schäfer

*Back to the Roots of Genres: Text Classification by Language Function*

Henning Wachsmuth and Kathrin Bujna

**November 10 (continued)**

**(15:10-15:30) Coffee Break**

**(15:30-17:10) Machine Translation III**

*Transductive Minimum Error Rate Training for Statistical Machine Translation*

Yinggong Zhao, Shujie Liu, Yangsheng Ji, Jiajun Chen and Guodong Zhou

*Distributed Minimum Error Rate Training of SMT using Particle Swarm Optimization*

Jun Suzuki, Kevin Duh and Masaaki Nagata

*Going Beyond Word Cooccurrences in Global Lexical Selection for Statistical Machine Translation using a Multilayer Perceptron*

Alexandre Patry and Philippe Langlais

*System Combination Using Discriminative Cross-Adaptation*

Jacob Devlin, Antti-Veikko Rost, Sankaranarayanan Ananthakrishnan and Spyros Mat-soukas

**(15:30-17:10) Semantics II**

*Word Sense Disambiguation by Combining Labeled Data Expansion and Semi-Supervised Learning Method*

Sanae Fujita and Akinori Fujino

*Combining ConceptNet and WordNet for Word Sense Disambiguation*

Junpeng Chen and Juan Liu

*It Takes Two to Tango: A Bilingual Unsupervised Approach for Estimating Sense Distributions using Expectation Maximization*

Mitesh M Khapra, Salil Joshi and Pushpak Bhattacharyya

*Dynamic and Static Prototype Vectors for Semantic Composition*

Siva Reddy, Ioannis Klapaftis, Diana McCarthy and Suresh Manandhar

## **November 10 (continued)**

### **(15:30-17:10) Information Extraction**

*Using Prediction from Sentential Scope to Build a Pseudo Co-Testing Learner for Event Extraction*

Shasha Liao and Ralph Grishman

*Text Segmentation and Graph-based Method for Template Filling in Information Extraction*

Ludovic Jean-Louis, Romaric Besançon and Olivier Ferret

*Joint Distant and Direct Supervision for Relation Extraction*

Truc-Vien T. Nguyen and Alessandro Moschitti

*A Cross-lingual Annotation Projection-based Self-supervision Approach for Open Information Extraction*

Seokhwan Kim, Minwoo Jeong, Jonghoon Lee and Gary Geunbae Lee

### **(15:30-17:10) Syntax III**

*Exploring Difficulties in Parsing Imperatives and Questions*

Tadayoshi Hara, Takuya Matsuzaki, Yusuke Miyao and Jun'ichi Tsujii

*A Discriminative Approach to Japanese Zero Anaphora Resolution with Large-scale Lexicalized Case Frames*

Ryohei Sasano and Sadao Kurohashi

*An Empirical Comparison of Unknown Word Prediction Methods*

Kostadin Cholakov, Gertjan van Noord, Valia Kordon and Yi Zhang

*Training Dependency Parsers from Partially Annotated Corpora*

Daniel Flannery, Yusuke Miayo, Graham Neubig and Shinsuke Mori

### **(19:00-21:00) Banquet**

**November 11**

**(9:00-10:00) Keynote – Wai Lam (Chinese University of Hong Kong)**

**(10:00-10:30) Coffee Break**

**(10:30-12:10) Machine Translation / Machine Learning (short papers)**

*Reducing Asymmetry between language-pairs to Improve Alignment and Translation Quality*

Rashmi Gangadharaiyah

*Clause-Based Reordering Constraints to Improve Statistical Machine Translation*

Ananthakrishnan Ramanathan, Pushpak Bhattacharyya, Karthik Visweswarah, Kushal Ladha and Ankur Gandhe

*Generalized Minimum Bayes Risk System Combination*

Kevin Duh, Katsuhito Sudoh, Xianchao Wu, Hajime Tsukada and Masaaki Nagata

*Enhancing scarce-resource language translation through pivot combinations*

Marta R. Costa-jussà, Carlos Henríquez and Rafael E. Banchs

*A Baseline System for Chinese Near-Synonym Choice*

Liang-Chih Yu, Wei-Nan Chien and Shih-Ting Chen

*Cluster Labelling based on Concepts in a Machine-Readable Dictionary*

Fumiyo Fukumoto and Yoshimi Suzuki

**November 11 (continued)**

**(10:30-12:10) Semantics (short papers)**

*Text Patterns and Compression Models for Semantic Class Learning*  
Chung-Yao Chuang, Yi-Hsun Lee and Wen-Lian Hsu

*Potts Model on the Case Fillers for Word Sense Disambiguation*  
Hiroya Takamura and Manabu Okumura

*Improving Word Sense Induction by Exploiting Semantic Relevance*  
Zhenzhong Zhang and Le Sun

*Predicting Word Clipping with Latent Semantic Analysis*  
Julian Brooke, Tong Wang and Graeme Hirst

**(10:30-12:10) Text Mining / Question Answering (short papers)**

*Domain Independent Model for Product Attribute Extraction from User Reviews using Wikipedia*  
Sudheer Kovelamudi, Sethu Ramalingam, Arpit Sood and Vasudeva Varma

*Finding Problem Solving Threads in Online Forum*  
Zhonghua Qu and Yang Liu

*Compiling Learner Corpus Data of Linguistic Output and Language Processing in Speaking, Listening, Writing, and Reading*  
Katsunori Kotani, Takehiko Yoshimi, Hiroaki Nanjo and Hitoshi Isahara

*Mining the Sentiment Expectation of Nouns Using Bootstrapping Method*  
Miaomiao Wen and Yunfang Wu

*An Analysis of Questions in a Q&A Site Resubmitted Based on Indications of Unclear Points of Original Questions*  
Masahiro Kojima, Yasuhiko Watanabe and Yoshihiro Okada

*Diversifying Information Needs in Results of Question Retrieval*  
Yaoyun Zhang, Xiaolong Wang, Xuan Wang, Rui Feng Xu, Jun Xu and ShiXi Fan

**November 11 (continued)**

**(10:30-12:10) Other NLP topics (short papers)**

*Beyond Normalization: Pragmatics of Word Form in Text Messages*  
Tyler Baldwin and Joyce Chai

*Chinese Discourse Relation Recognition*  
Hen-Hsen Huang and Hsin-Hsi Chen

*Improving Chinese POS Tagging with Dependency Parsing*  
Zhenghua Li, Wanxiang Che and Ting Liu

*Exploring self training for Hindi dependency parsing*  
Rahul Goutam and Bharat Ram Ambati

*Reduction of Search Space to Annotate Monolingual Corpora*  
Prajol Shrestha, Christine Jacquin and Beatrice Daille

*Toward a Parallel Corpus of Spoken Cantonese and Written Chinese*  
John Lee

**(12:00-13:30) Lunch**

**(13:30-15:35) Machine Translation IV**

*A Breadth-First Representation for Tree Matching in Large Scale Forest-Based Translation*  
Sumukh Ghodke, Steven Bird and Rui Zhang

*Bayesian Subtree Alignment Model based on Dependency Trees*  
Toshiaki Nakazawa and Sadao Kurohashi

*Enriching SMT Training Data via Paraphrasing*  
Wei He, Shiqi Zhao, Haifeng Wang and Ting Liu

*Translation Quality Indicators for Pivot-based Statistical MT*  
Michael Paul and Eiichiro Sumita

*Source Error-Projection for Sample Selection in Phrase-Based SMT for Resource-Poor Languages*  
Sankaranarayanan Ananthakrishnan, Shiv Vitaladevuni, Rohit Prasad and Prem Natarajan

## **November 11 (continued)**

### **(13:30-15:35) Morphology / Named-Entity Recognition**

*A Named Entity Recognition Method based on Decomposition and Concatenation of Word Chunks*

Tomoya Iwakura, Hiroya Takamura and Manabu Okumura

*Extract Chinese Unknown Words from a Large-scale Corpus Using Morphological and Distributional Evidences*

Kaixu Zhang, Ruining Wang, Ping Xue and Maosong Sun

*Entity Disambiguation Using a Markov-Logic Network*

Hong-Jie Dai, Richard Tzong-Han Tsai and Wen-Lian Hsu

*Named Entity Recognition in Chinese News Comments on the Web*

Xiaojun Wan, Liang Zong, Xiaojiang Huang, Tengfei Ma, Houping Jia, Yuqian Wu and Jianguo Xiao

*Clustering Semantically Equivalent Words into Cognate Sets in Multilingual Lists*

Bradley Hauer and Grzegorz Kondrak

### **(13:30-15:35) Resources**

*Extending WordNet with Hypernyms and Siblings Acquired from Wikipedia*

Ichiro Yamada, Jong-Hoon Oh, Chikara Hashimoto, Kentaro Torisawa, Jun'ichi Kazama, Stijn De Saeger and Takuya Kawada

*What Psycholinguists Know About Chemistry: Aligning Wiktionary and WordNet for Increased Domain Coverage*

Christian M. Meyer and Iryna Gurevych

*From News to Comment: Resources and Benchmarks for Parsing the Language of Web 2.0*

Jennifer Foster, Ozlem Cetinoglu, Joachim Wagner, Joseph Le Roux, Joakim Nivre, Deirdre Hogan and Josef van Genabith

*Toward Finding Semantic Relations not Written in a Single Sentence: An Inference Method using Auto-Discovered Rules*

Masaaki Tsuchida, Kentaro Torisawa, Stijn De Saeger, Jong Hoon Oh, Jun'ichi Kazama, Chikara Hashimoto and Hayato Ohwada

*Fleshing it out: A Supervised Approach to MWE-token and MWE-type Classification*

Richard Fothergill and Timothy Baldwin

## **November 11 (continued)**

### **(13:30-15:35) Question Answering**

*Identification of relations between answers with global constraints for Community-based Question Answering services*

Hikaru Yokono, Takaaki Hasegawa, Genichiro Kikui and Manabu Okumura

*Automatically Generating Questions from Queries for Community-based Question Answering*

Shiqi Zhao, Haifeng Wang, Chao Li, Ting Liu and Yi Guan

*Question classification based on an extended class sequential rule model*

Zijing Hui, Juan Liu and Lumei Ouyang

*K2Q: Generating Natural Language Questions from Keywords with User Refinements*

Zhicheng Zheng, Xiance Si, Edward Chang and Xiaoyan Zhu

*Answering Complex Questions via Exploiting Social Q&A Collection*

Youzheng Wu, Chiori Hori, Hisashi Kawai and Hideki Kashioka

### **(15:35-16:05) Coffee Break**

**(16:05-17:15) Best paper session (2 plenary papers announced during this session)**

**(17:15-17:25) Presentation of Future Conferences (including ACL/IJCNLP 2012)**

**(17:25-17:35) Closing Ceremony**

**November 9**

**(18:00-21:00) Poster Session**

**Text Mining**

*Safety Information Mining — What can NLP do in a disaster—*

Graham Neubig, Yuichiroh Matsubayashi, Masato Hagiwara and Koji Murakami

*A Character-Level Machine Translation Approach for Normalization of SMS Abbreviations*

Deana Pennell and Yang Liu

*Using Text Reviews for Product Entity Completion*

Mrinmaya Sachan, Tanveer Faruquie, L. V. Subramaniam and Mukesh Mohania

*Mining bilingual topic hierarchies from unaligned text*

Sumit Negi

*Efficient Near-Duplicate Detection for Q&A Forum*

Yan Wu, Qi Zhang and Xuanjing Huang

**Information Extraction**

*A Graph-based Method for Entity Linking*

Yuhang Guo, Wanxiang Che, Ting Liu and Sheng Li

*Harvesting Related Entities with a Search Engine*

Shuqi Sun, Shiqi Zhao, Muyun Yang, Haifeng Wang and Sheng Li

*Acquiring Strongly-related Events using Predicate-argument Co-occurring Statistics and Case Frames*

Tomohide Shibata and Sadao Kurohashi

## **November 9 (continued)**

### **Information Retrieval**

*Relevance Feedback using Latent Information*

Jun Harashima and Sadao Kurohashi

*Passage Retrieval for Information Extraction using Distant Supervision*

Wei Xu, Ralph Grishman and Le Zhao

*Query Expansion for IR using Knowledge-Based Relatedness*

Arantxa Otegi, Xabier Arregi and Eneko Agirre

### **Summarization**

*Using Context Inference to Improve Sentence Ordering for Multi-document Summarization*

Peifeng Li, Guangxi Deng and Qiaoming Zhu

*Enhancing extraction based summarization with outside word space*

Christian Smith and Arne Jönsson

### **Discourse**

*Shallow Discourse Parsing with Conditional Random Fields*

Sucheta Ghosh, Richard Johansson, Giuseppe Riccardi and Sara Tonelli

### **Machine Learning**

*Relational Lasso —An Improved Method Using the Relations Among Features—*

Kotaro Kitagawa and Kumiko Tanaka-Ishii

*Enhance Top-down method with Meta-Classification for Very Large-scale Hierarchical Classification*

Xiao-lin Wang, Hai Zhao and Bao-Liang Lu

*Using Syntactic and Shallow Semantic Kernels to Improve Multi-Modality Manifold-Ranking for Topic-Focused Multi-Document Summarization*

Yllias Chali, Sadid A. Hasan and Kaisar Imam

*Automatic Determination of a Domain Adaptation Method for Word Sense Disambiguation Using Decision Tree Learning*

Kanako Komiya and Manabu Okumura

*Learning from Chinese-English Parallel Data for Chinese Tense Prediction*

Feifan Liu, Fei Liu and Yang Liu

## **November 9 (continued)**

### **Semantics**

*Jointly Extracting Japanese Predicate-Argument Relation with Markov Logic*  
Katsumasa Yoshikawa, Masayuki Asahara and Yuji Matsumoto

*Word Meaning in Context: A Simple and Effective Vector Model*  
Stefan Thater, Hagen Fürstenau and Manfred Pinkal

*Automatic Analysis of Semantic Coherence in Academic Abstracts Written in Portuguese*  
Vinícius Mourão Alves de Souza and Valéria Delisandra Feltrim

*Word Sense Disambiguation Corpora Acquisition via Confirmation Code*  
Wanxiang Che and Ting Liu

### **Sentiment**

*Sentence Subjectivity Detection with Weakly-Supervised Learning*  
Chenghua Lin, Yulan He and Richard Everson

*Opinion Expression Mining by Exploiting Keyphrase Extraction*  
Gábor Berend

*Extracting Resource Terms for Sentiment Analysis*  
Lei Zhang and Bing Liu

*Towards Context-Based Subjectivity Analysis*  
Farah Benamara, Baptiste Chardon, Yannick Mathieu and Vladimir Popescu

### **Phonology/Morphology**

*Compression Methods by Code Mapping and Code Dividing for Chinese Dictionary Stored in a Double-Array Trie*  
Huidan Liu, Minghua Nuo, Longlong Ma, Jian Wu and Yeping He

*Functional Elements and POS Categories*  
Qiuye Zhao and Mitch Marcus

*Joint Alignment and Artificial Data Generation: An Empirical Study of Pivot-based Machine Transliteration*  
Min Zhang, Xiangyu Duan, Ming Liu, Yunqing Xia and Haizhou Li

## **November 9 (continued)**

*Incremental Joint POS Tagging and Dependency Parsing in Chinese*  
Jun Hatori, Takuya Matsuzaki, Yusuke Miyao and Jun'ichi Tsujii

### **Resources**

*Extending the adverbial coverage of a NLP oriented resource for French*  
Elsa Tolone and Stavroula Voyatzis

*Linguistic Phenomena, Analyses, and Representations: Understanding Conversion between Treebanks*  
Rajesh Bhatt, Owen Rambow and Fei Xia

### **Syntax**

*Automatic Transformation of the Thai Categorial Grammar Treebank to Dependency Trees*  
Christian Rishøj, Taneth Ruangrajitpakorn, Prachya Boonkwan and Thepchai Supnithi

*Parse Reranking Based on Higher-Order Lexical Dependencies*  
Zhiguo Wang and Chengqing Zong

*Improving Part-of-speech Tagging for Context-free Parsing*  
Xiao Chen and Chunyu Kit

*Models Cascade for Tree-Structured Named Entity Detection*  
Marco Dinarelli and Sophie Rosset

*Clausal parsing helps data-driven dependency parsing: Experiments with Hindi*  
Samar Husain, Phani Gadde, Joakim Nivre and Rajeev Sangal

## **November 9 (continued)**

### **Machine Translation**

*Word-reordering for Statistical Machine Translation Using Trigram Language Model*  
Jing He and Hongyu Liang

*Extracting Hierarchical Rules from a Weighted Alignment Matrix*  
Zhaopeng Tu, Yang Liu, Qun Liu and Shouxun Lin

*Integration of Reduplicated Multiword Expressions and Named Entities in a Phrase Based Statistical Machine Translation System*  
Thoudam Doren Singh and Sivaji Bandyopadhyay

*Regularizing Mono- and Bi-Word Models for Word Alignment*  
Thomas Schoenemann

*Parametric Weighting of Parallel Data for Statistical Machine Translation*  
Kashif Shah, Loïc Barrault and Holger Schwenk

*An Effective and Robust Framework for Transliteration Exploration*  
EA-EE JAN, Niyu Ge, Shih-Hsiang Lin and Berlin Chen

