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Asian Federation of Natural Language Processing (AFNLP)



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## FOREWORD

Welcome to the 6th International Joint Conference on Natural Language Processing (IJCNLP) in Nagoya, Japan. IJCNLP was initiated in 2004 by The Asian Federation of Natural Language Processing (AFNLP) with the major goal to provide a platform for researchers and professionals from around the world to share their experiences related to natural language processing and computational linguistics. In the past years, IJCNLPs were held in 5 different places: Hainan Island (2004), Jeju Island (2005), Hyderabad (2008), Singapore (2009), and Chiang Mai (2011). This year the 6th IJCNLP is held in Nagoya Congress Center on October 14-18, 2013. The conference covers a broad spectrum of technical areas related to natural language and computation. Besides main conference, the program includes 2 keynote speeches, 3 tutorials, 12 demonstrations, and 7 workshops.

We would like to thank many people who contribute their efforts to IJCNLP 2013. Program chairs Ruslan Mitkov and Jong C. Park select a strong set of papers and organize a wonderful program. PC coordinators Jin-Woo Chung and Isabel Duran support authors and PC committee a stable submission and review platform. Workshop chairs Naoaki Okazaki and Scott Wen-tau Yih organize 7 nice pre-conference and post-conference workshops. Tutorial chairs Vincent Ng and Satoshi Sekine choose 3 very good tutorials. Demo chairs Hang Li and Kentaro Torisawa recommend 12 demonstrations. Sponsorship chair Hiromi Nakaiwa designs sponsor packages and finds financial supports. We thank all the sponsors. Publicity chairs Gareth Jones, Gary Geunbae Lee, Diego Mollá-Aliod, Chengqing Zong and Stajner Sanja help circulate the conference information and promote the conference. We would like to express our special thanks to publication chairs Jing Jiang and Lun-Wei Ku. They bore two babies during the organization of the conference. After the hard work, they deliver an excellent proceeding to the participants. Finally, we are very thankful to those people who dedicate their time and energy to IJCNLP 2013, but are not mentioned in the above. Without them, we would not have had a successful conference.

Hsin-Hsi Chen, General Chair, National Taiwan University, Taiwan Hitoshi Isahara, Organization Chair, Toyohashi University of Technology, Japan

October 15, 2013

## PREFACE

As the flagship conference of the Asian Federation of Natural Language Processing (AFNLP), IJCNLP continues to establish itself as a highly influential international event. IJCNLP 2013 covers a broad spectrum of technical areas related to Natural Language Processing. The conference includes regular papers, short papers, poster papers, and system demonstrations, as well as pre- and post-conference tutorials and workshops.

This year, we received 363 paper submissions, which is not as many as the record submissions in the previous conference (e.g., 478 in 2011) but still quite admirable, considering the tough competition for good papers this year, with EMNLP 2013 and RANLP 2013, and the fact that many organizations have restricted their spending in the current economic climate. This represents increasing interest in research on NLP and the growing reputation of IJCNLP as an international event. The 363 submissions include 235 regular, 86 short, and 42 poster paper submissions from more than 37 countries. In particular, approximately 63% of the papers are from 14 countries and areas in Asia Pacific, 18% from 14 countries in Europe, 14% from the United States and Canada; in addition, 4% of the papers are from the Middle East and Africa, and 1% come from South America.

We would like to thank all the authors for submitting papers to IJCNLP 2013. The significant increase in the number of submissions, the topics covered and the wide range of demographic areas represent a rapid and steady growth of our field and hold promise for a bright future. We would also like to thank the 23 area chairs and 439 program committee members for writing over 1078 reviews and meta-reviews and for paving the way for the final paper selection. Of all 363 submissions, a total of 88 papers were accepted as regular papers, representing a healthy 24.4% acceptance rate. Additional 56 papers were accepted as short papers, which, together with regular papers, represent a 39.8% acceptance rate. In addition, 74 papers were accepted as poster papers. Due to various reasons, some authors of accepted papers chose to withdraw their submissions afterwards. As a result, we have 85 regular papers (23.4% acceptance rate), 53 short papers (38.0% acceptance rate), and 62 poster papers. All the regular and short papers are presented orally, and all the poster papers are presented in the plenary poster session. 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 have been possible. The help of PC coordinators is also much appreciated.

We are delighted to have two keynote speakers addressing different aspects of NLP in IJCNLP 2013. Hwee Tou Ng will present a talk about improving students' writing with automated grammatical error correction, including the review of recent research and advances in grammatical error correction. Roberto Navigli will present a talk about BabelNet 2.0, a very large multilingual semantic network that covers 50 languages and provides both lexicographic and encyclopedic knowledge for all the open-class parts of speech. These plenary talks will surely be not only informative but also enlightening to the audience, leading to many innovative research ideas. We would like to thank General Chair Hsin-Hsi Chen, the Local Arrangements Committee headed by Hitoshi Isahara, and the AFNLP Conference Coordination Committee chaired by Yuji Matsumoto, for their help and advice. Thanks to Jing Jiang and Lun-Wei Ku, the Publication Committee Chairs, for putting the proceedings together, and all the other committee chairs for their great work.

We hope that you enjoy the conference!

Ruslan Mitkov, University of Wolverhampton, England, United Kingdom Jong C. Park, Korea Advanced Institute of Science and Technology, Republic of Korea IJCNLP 2013 Program Committee Chairs

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## **Table of Contents**

Semi-Supervised Answer Extraction from Discussion Forums Rose Catherine, Rashmi Gangadharaiah, Karthik Visweswariah and Dinesh Raghu 1
WordTopic-MultiRank: A New Method for Automatic Keyphrase Extraction Fan Zhang, Lian'en Huang and Bo Peng
<i>Towards Contextual Healthiness Classification of Food Items - A Linguistic Approach</i> Michael Wiegand and Dietrich Klakow
Learning a Replacement Model for Query Segmentation with Consistency in Search Logs Wei Zhang, Yunbo Cao, Chin-Yew Lin, Jian Su and Chew-Lim Tan
Precise Information Retrieval Exploiting Predicate-Argument Structures Daisuke Kawahara, Keiji Shinzato, Tomohide Shibata and Sadao Kurohashi
Global Model for Hierarchical Multi-Label Text Classification Yugo Murawaki
(Pre-)Annotation of Topic-Focus Articulation in Prague Czech-English Dependency Treebank Jiří Mírovský, Kateřina Rysová, Magdaléna Rysová and Eva Hajičová
Animacy Acquisition Using Morphological Case Riyaz Ahmad Bhat and Dipti Misra Sharma
<i>The Complexity of Math Problems – Linguistic, or Computational?</i> Takuya Matsuzaki, Hidenao Iwane, Hirokazu Anai and Noriko Arai
Hybrid Models for Lexical Acquisition of Correlated Styles         Julian Brooke and Graeme Hirst       82
<i>Introducing the Prague Discourse Treebank 1.0</i> Lucie Poláková, Jiří Mírovský, Anna Nedoluzhko, Pavlína Jínová, Šárka Zikánová and Eva Ha- jičová
Multilingual Mention Detection for Coreference Resolution           Olga Uryupina and Alessandro Moschitti
A Weakly Supervised Bayesian Model for Violence Detection in Social Media Amparo Elizabeth Cano Basave, Yulan He, Kang Liu and Jun Zhao
Detecting Spammers in Community Question AnsweringZhuoye Ding, Yeyun Gong, Yaqian Zhou, Qi Zhang and Xuanjing Huang
Chinese Informal Word Normalization: an Experimental Study Aobo Wang, Min-Yen Kan, Daniel Andrade, Takashi Onishi and Kai Ishikawa
Feature Selection Using a Semantic Hierarchy for Event Recognition and Type Classification         Yoonjae Jeong and Sung-Hyon Myaeng
<i>Romanization-based Approach to Morphological Analysis in Korean SMS Text Processing</i> Youngsam Kim and Hyopil Shin

<i>Efficient Word Lattice Generation for Joint Word Segmentation and POS Tagging in Japanese</i> Nobuhiro Kaji and Masaru Kitsuregawa153
A Simple Approach to Unknown Word Processing in Japanese Morphological Analysis Ryohei Sasano, Sadao Kurohashi and Manabu Okumura
Chinese Word Segmentation by Mining Maximized Substrings Mo Shen, Daisuke Kawahara and Sadao Kurohashi
Capturing Long-distance Dependencies in Sequence Models: A Case Study of Chinese Part-of-speech Tagging Weiwei Sun, Xiaochang Peng and Xiaojun Wan
<i>Exploring Semantic Information in Hindi WordNet for Hindi Dependency Parsing</i> Sambhav Jain, Naman Jain, Aniruddha Tammewar, Riyaz Ahmad Bhat and Dipti Sharma189
Towards Robust Cross-Domain Domain Adaptation for Part-of-Speech Tagging         Tobias Schnabel and Hinrich Schütze         198
Dependency Parsing for Identifying Hungarian Light Verb Constructions Veronika Vincze, János Zsibrita and István Nagy T
Written Dialog and Social Power: Manifestations of Different Types of Power in Dialog Behavior         Vinodkumar Prabhakaran and Owen Rambow         216
<i>Evaluation of the Scusi? Spoken Language Interpretation System – A Case Study</i> Thomas Kleinbauer, Ingrid Zukerman and Su Nam Kim
A Noisy Channel Approach to Error Correction in Spoken Referring Expressions Su Nam Kim, Ingrid Zukerman, Thomas Kleinbauer and Farshid Zavareh
Natural Language Query Refinement for Problem Resolution from Crowd-Sourced Semi-Structured Data         Rashmi Gangadharaiah and Balakrishnan Narayanaswamy
<i>Ensemble Triangulation for Statistical Machine Translation</i> Majid Razmara and Anoop Sarkar
<i>Robust Transliteration Mining from Comparable Corpora with Bilingual Topic Models</i> John Richardson, Toshiaki Nakazawa and Sadao Kurohashi
<i>SuMT: A Framework of Summarization and MT</i> Houda Bouamor, Behrang Mohit and Kemal Oflazer
Tuning SMT with a Large Number of Features via Online Feature GroupingLemao Liu, Tiejun Zhao, Taro Watanabe and Eiichiro Sumita279
Multimodal Comparable Corpora as Resources for Extracting Parallel Data: Parallel Phrases ExtractionHaithem Afli, Loïc Barrault and Holger Schwenk
Bootstrapping Large-scale Named Entities using URL-Text Hybrid Patterns Chao Zhang, Shiqi Zhao and Haifeng Wang
<i>Feature-Rich Segment-Based News Event Detection on Twitter</i> Yanxia Qin, Yue Zhang, Min Zhang and Dequan Zheng

Building Chinese Event Type Paradigm Based on Trigger Clustering           Xiao Ding, Bing Qin and Ting Liu         311
Chinese Named Entity Abbreviation Generation Using First-Order Logic Huan Chen, Qi Zhang, Jin Qian and Xuanjing Huang
Full-coverage Identification of English Light Verb ConstructionsIstván Nagy T., Veronika Vincze and Richárd Farkas329
Detecting Deceptive Opinions with Profile Compatibility           Vanessa Wei Feng and Graeme Hirst.         338
Behind the Times: Detecting Epoch Changes using Large Corpora           Octavian Popescu and Carlo Strapparava         347
<i>How Noisy Social Media Text, How Diffrnt Social Media Sources?</i> Timothy Baldwin, Paul Cook, Marco Lui, Andrew MacKinlay and Li Wang
Who Had the Upper Hand? Ranking Participants of Interactions Based on Their Relative Power Vinodkumar Prabhakaran, Ajita John and Dorée D. Seligmann
Readability Indices for Automatic Evaluation of Text Simplification Systems: A Feasibility Study for Spanish
Sanja Štajner and Horacio Saggion
Weasels, Hedges and Peacocks: Discourse-level Uncertainty in Wikipedia Articles Veronika Vincze
Automatically Developing a Fine-grained Arabic Named Entity Corpus and Gazetteer by utilizing Wikipedia         Fahd Alotaibi and Mark Lee       392
Ranking Translation Candidates Acquired from Comparable Corpora Rima Harastani, Béatrice Daille and Emmanuel Morin
Using the Semantic-Syntactic Interface for Reliable Arabic Modality Annotation Rania Al-Sabbagh, Jana Diesner and Roxana Girju
<i>Mapping Rules for Building a Tunisian Dialect Lexicon and Generating Corpora</i> Rahma Boujelbane, Mariem Ellouze Khemekhem and Lamia Hadrich Belguith
Hypothesis Refinement Using Agreement Constraints in Machine Translation           Ankur Gandhe and Rashmi Gangadharaiah         429
Scalable Variational Inference for Extracting Hierarchical Phrase-based Translation Rules Baskaran Sankaran, Gholamreza Haffari and Anoop Sarkar
A Topic-Triggered Language Model for Statistical Machine Translation Heng Yu, Jinsong Su, Yajuan Lv and Qun Liu
Reserved Self-training: A Semi-supervised Sentiment Classification Method for Chinese Microblogs Zhiguang Liu, Xishuang Dong, Yi Guan and Jinfeng Yang
<i>Enhancing Lexicon-Based Review Classification by Merging and Revising Sentiment Dictionaries</i> Heeryon Cho, Jong-Seok Lee and Songkuk Kim

Exploring the Effects of Word Roots for Arabic Sentiment Analysis Shereen Oraby, Yasser El-Sonbaty and Mohamad Abou El-Nasr
Topical Key Concept Extraction from FolksonomyHan Xue, Bing Qin, Ting Liu and Chao Xiang
Uncovering Distributional Differences between Synonyms and Antonyms in a Word Space Model Silke Scheible, Sabine Schulte im Walde and Sylvia Springorum
Multilingual Word Sense Disambiguation Using WikipediaBharath Dandala, Rada Mihalcea and Razvan Bunescu498
Semantic v.s. Positions: Utilizing Balanced Proximity in Language Model Smoothing for Information Retrieval
Rui Yan, Han Jiang, Mirella Lapata, Shou-De Lin, Xueqiang Lv and Xiaoming Li 507
An Unsupervised Parameter Estimation Algorithm for a Generative Dependency N-gram Language Model Chenchen Ding and Mikio Yamamoto
-
Learning a Product of Experts with Elitist Lasso Mengqiu Wang and Christopher D. Manning
Learning Efficient Information Extraction on Heterogeneous Texts Henning Wachsmuth, Benno Stein and Gregor Engels
TopicRank: Graph-Based Topic Ranking for Keyphrase ExtractionAdrien Bougouin, Florian Boudin and Béatrice Daille543
Understanding the Semantic Intent of Natural Language Query Juan Xu, Qi Zhang and Xuanjing Huang
Sentiment Classification for Movie Reviews in Chinese Using Parsing-based Methods Wen-Juan Hou and Chuang-Ping Chang
Sentiment Aggregation using ConceptNet Ontology           Subhabrata Mukherjee and Sachindra Joshi         570
Detecting Cyberbullying Entries on Informal School Websites Based on Category Relevance Maximiza- tion
Taisei Nitta, Fumito Masui, Michal Ptaszynski, Yasutomo Kimura, Rafal Rzepka and Kenji Araki 579
A Lexicon-based Investigation of Research Issues in Japanese Factuality Analysis Kazuya Narita, Junta Mizuno and Kentaro Inui
A Hierarchical Semantics-Aware Distributional Similarity Scheme Shuqi Sun, Ke Sun, Shiqi Zhao, Haifeng Wang, Muyun Yang and Sheng Li
Labeled Alignment for Recognizing Textual Entailment
Xiaolin Wang, Hai Zhao and Bao-Liang Lu
Context-Based Chinese Word Segmentation using SVM Machine-Learning Algorithm without Dictionary Support
Chia-ming Lee and Chien-Kang Huang614

A Common Case of Jekyll and Hyde: The Synergistic Effect of Using Divided Source Training Data for Feature Augmentation Yan Song and Fei Xia
Detecting Polysemy in Hard and Soft Cluster Analyses of German Preposition Vector Spaces Sylvia Springorum, Sabine Schulte im Walde and Jason Utt
Generalized Abbreviation Prediction with Negative Full Forms and Its Application on Improving Chinese Web Search
Xu Sun, Wenjie Li, Fanqi Meng and Houfeng Wang641
Prosody-Based Unsupervised Speech Summarization with Two-Layer Mutually Reinforced Random Walk Sujay Kumar Jauhar, Yun-Nung Chen and Florian Metze
Mining the Gaps: Towards Polynomial Summarization           Marina Litvak and Natalia Vanetik         655
Detecting Domain Dedicated Polar Words           Raksha Sharma and Pushpak Bhattacharyya           661
<i>Can I Hear You? Sentiment Analysis on Medical Forums</i> Tanveer Ali, David Schramm, Marina Sokolova and Diana Inkpen
<ul> <li>Construction of Emotional Lexicon Using Potts Model</li> <li>Braja Gopal Patra, Hiroya Takamura, Dipankar Das, Manabu Okumura and Sivaji Bandyopadhyay</li> <li>674</li> </ul>
Suicidal Tendencies: The Automatic Classification of Suicidal and Non-Suicidal Lyricists Using NLP Matthew Mulholland and Joanne Quinn
Unsupervised Word Class Induction for Under-resourced Languages: A Case Study on Indonesian Meladel Mistica, Jey Han Lau and Timothy Baldwin
An Efficient Active Learning Framework for New Relation Types Lisheng Fu and Ralph Grishman
Parsing Dependency Paths to Identify Event-Argument Relations           Seung-Cheol Baek and Jong Park         699
Augmentable Paraphrase Extraction Framework         MeiHua Chen, YiChun Chen, ShihTing Huang and Jason S. Chang
Automatic Prediction of Evidence-based Recommendations via Sentence-level Polarity Classification Abeed Sarker, Diego Mollá-Aliod and Cécile Paris
Clustering Microtext Streams for Event Identification Jie Yin
Automatic Corpora Construction for Text Classification Dandan Wang, Qingcai Chen, Xiaolong Wang and Bingyang Yu
<i>Learning to Generate Diversified Query Interpretations using Biconvex Optimization</i> Ramakrishna Bairi, Ambha A and Ganesh Ramakrishnan

Learning Based Approaches for Vietnamese Question Classification Using Keywords Extraction from the Web
Dang Tran, Cuong Chu, Son Pham and Minh Nguyen740
Detecting Bot-Answerable Questions in Ubuntu Chat         David Uthus and David Aha       747
Alignment-based Annotation of Proofreading Texts toward Professional Writing Assistance Ngan Nguyen and Yusuke Miyao
Toward Automatic Processing of English Metalanguage         Shomir Wilson       760
On the Effectiveness of Using Syntactic and Shallow Semantic Tree Kernels for Automatic Assessment of Essays
Yllias Chali and Sadid A. Hasan
<i>Little by Little: Semi Supervised Stemming through Stem Set Minimization</i> Vasudevan N and Pushpak Bhattacharyya
What Information is Helpful for Dependency Based Semantic Role LabelingYanyan Luo, Kevin Duh and Yuji Matsumoto781
Classifying Taxonomic Relations between Pairs of Wikipedia Articles Or Biran and Kathleen McKeown
A Rule System for Chinese Time Entity Recognition by Comprehensive Linguistic Study Hongzhi Xu and Chu-Ren Huang
<i>Financial Sentiment Analysis for Risk Prediction</i> Chuan-Ju Wang, Ming-Feng Tsai, Tse Liu and Chin-Ting Chang
Sense Disambiguation: From Natural Language Words to Mathematical Terms Minh-Quoc Nghiem, Giovanni Yoko Kristianto, Goran Topic and Akiko Aizawa
Adapting a State-of-the-art Anaphora Resolution System for Resource-poor Language Utpal Sikdar, Asif Ekbal, Sriparna Saha, Olga Uryupina and Massimo Poesio
Chinese Event Coreference Resolution: Understanding the State of the Art Chen Chen and Vincent Ng
A Two-Step Named Entity Recognizer for Open-Domain Search Queries Andreas Eiselt and Alejandro Figueroa
A Comparison of Centrality Measures for Graph-Based Keyphrase Extraction Florian Boudin
<i>Translating Chinese Unknown Words by Automatically Acquired Templates</i> Ming-Hong Bai, Yu-Ming Hsieh, Keh-Jiann Chen and Jason S. Chang
Multilingual Lexicon Bootstrapping - Improving a Lexicon Induction System Using a Parallel Corpus         Patrick Ziering, Lonneke van der Plas and Hinrich Schütze         844
Mining Japanese Compound Words and Their Pronunciations from Web Pages and Tweets Xianchao Wu

A Factoid Question Answering System Using Answer Pattern Matching Nagehan Pala Er and Ilyas Cicekli
Chinese Short Text Classification Based on Domain Knowledge Xiao Feng, Yang Shen, Chengyong Liu, Wei Liang and Shuwu Zhang
Applying Graph-based Keyword Extraction to Document Retrieval Youngsam Kim, Munhyong Kim, Andrew Cattle, Julia Otmakhova, Suzi Park and Hyopil Shin864
Semi-supervised Classification of Twitter Messages for Organization Name Disambiguation Shu Zhang, Jianwei Wu, Dequan Zheng, Yao Meng and Hao Yu
Word in a Dictionary is used by Numerous Users Eiji Aramaki, Sachiko Maskawa, Mai Miyabe, Mizuki Morita and Sachi Yasuda
<i>Extracting Evaluative Conditions from Online Reviews: Toward Enhancing Opinion Mining</i> Yuki Nakayama and Atsushi Fujii
Cognate Production using Character-based Machine Translation           Lisa Beinborn, Torsten Zesch and Iryna Gurevych         883
An Empirical Study of Combing Multiple Models in Bengali Question Classification Somnath Banerjee and Sivaji Bandyopadhyay
A Two-Stage Classifier for Sentiment Analysis Dai Quoc Nguyen, Dat Quoc Nguyen and Son Bao Pham
Exploiting User Search Sessions for the Semantic Categorization of Question-like Informational Search Queries Alejandro Figueroa and Guenter Neumann
Influence of Part-of-Speech and Phrasal Category Universal Tag-set in Tree-to-Tree Translation Models Francisco Oliveira, Derek F. Wong, Lidia S. Chao, Liang Tian and Liangye He
Interest Analysis using PageRank and Social Interaction Content Chung-chi Huang and Lun-Wei Ku
<i>Time Series Topic Modeling and Bursty Topic Detection of Correlated News and Twitter</i> Daichi Koike, Yusuke Takahashi, Takehito Utsuro, Masaharu Yoshioka and Noriko Kando917
A Distant Supervision Approach for Identifying Perspectives in Unstructured User-Generated Text Attapol Thamrongrattanarit, Colin Pollock, Benjamin Goldenberg and Jason Fennell
An Approach of Hybrid Hierarchical Structure for Word Similarity Computing by HowNet Jiangming Liu, Jinan Xu and Yujie Zhang
Extracting Causes of Emotions from Text Alena Neviarouskaya and Masaki Aono
Automated Grammar Correction Using Hierarchical Phrase-Based Statistical Machine Translation Bibek Behera and Pushpak Bhattacharyya937
<i>Finding Dependency Parsing Limits over a Large Spanish Corpus</i> Muntsa Padró, Miguel Ballesteros, Héctor Martínez and Bernd Bohnet

High Quality Dependency Selection from Automatic Parses         Gongye Jin, Daisuke Kawahara and Sadao Kurohashi
Building Specialized Bilingual Lexicons Using Word Sense Disambiguation         Dhouha Bouamor, Nasredine Semmar and Pierre Zweigenbaum         952
Predicate Argument Structure Analysis using Partially Annotated Corpora Koichiro Yoshino, Shinsuke Mori and Tatsuya Kawahara
Statistical Dialogue Management using Intention Dependency Graph Koichiro Yoshino, Shinji Watanabe, Jonathan Le Roux and John R. Hershey962
Repairing Incorrect Translation with ExamplesJunguo Zhu, Muyun Yang, Sheng Li and Tiejun Zhao967
<i>Phrase-based Parallel Fragments Extraction from Comparable Corpora</i> Xiaoyin Fu, Wei Wei, Shixiang Lu, Zhenbiao Chen and Bo Xu
A Hybrid Approach for Anaphora Resolution in Hindi Praveen Dakwale, Vandan Mujadia and Dipti M Sharma977
Structure Cognizant Pseudo Relevance Feedback Arjun Atreya V, Yogesh Kakde, Pushpak Bhattacharyya and Ganesh Ramakrishnan
Cross-Domain Answer Ranking using Importance Sampling Anders Johannsen and Anders Søgaard
<i>Morphological Analysis of Tunisian Dialect</i> Inès Zribi, Mariem Ellouze Khemakhem and Lamia Hadrich Belguith
Disambiguating Explicit Discourse Connectives without Oracles Anders Johannsen and Anders Søgaard
Updating Rare Term Vector ReplacementTobias Berka and Marian Vajteršic1002
Statistical Morphological Analyzer for HindiDeepak Kumar Malladi and Prashanth Mannem1007
Induction of Root and Pattern Lexicon for Unsupervised Morphological Analysis of Arabic Bilal Khaliq and John Carrol
Using Shallow Semantic Parsing and Relation Extraction for Finding Contradiction in Text Minh Quang Nhat Pham, Minh Le Nguyen and Akira Shimazu1017
Using Transliteration of Proper Names from Arabic to Latin Script to Improve English-Arabic Word Alignment
Nasredine Semmar and Houda Saadane 1022
A Semi-Supervised Method for Arabic Word Sense Disambiguation Using a Weighted Directed Graph Laroussi Merhbene, Anis Zouaghi and Mounir Zrigui
Incremental Segmentation and Decoding Strategies for Simultaneous Translation

Mahsa Yarmohammadi, Vivek Kumar Rangarajan Sridhar, Srinivas Bangalore and Baskaran Sankaran 1032

<i>Two Case Studies on Translating Pronouns in a Deep Syntax Framework</i> Michal Novák, Zdenek Zabokrtsky and Anna Nedoluzhko
Bootstrapping Phrase-based Statistical Machine Translation via WSD Integration Hien Vu Huy, Phuong-Thai Nguyen, Tung-Lam Nguyen and M.L Nguyen 1042
Orthographic and Morphological Processing for Persian-to-English Statistical Machine Translation Mohammad Sadegh Rasooli, Ahmed El Kholy and Nizar Habash1047
Interoperability between Service Composition and Processing Pipeline: Case Study on the Language Grid and UIMA Trang Mai Xuan, Yohei Murakami, Donghui Lin and Toru Ishida
Improving Calculation of Contextual Similarity for Constructing a Bilingual Dictionary via a Third Language Takashi Tsunakawa, Yosuke Yamamoto and Hiroyuki Kaji
<i>Two-Stage Pre-ordering for Japanese-to-English Statistical Machine Translation</i> Sho Hoshino, Yusuke Miyao, Katsuhito Sudoh and Masaaki Nagata
<i>Grammatical Error Correction Using Feature Selection and Confidence Tuning</i> Yang Xiang, Yaoyun Zhang, Xiaolong Wang, Chongqiang Wei, Wen Zheng, Xiaoqiang Zhou, Yuxiu Hu and Yang Qin
An Online Algorithm for Learning over Constrained Latent Representations using Multiple Views Ann Clifton, Max Whitney and Anoop Sarkar
Synonym Acquisition Using Bilingual Comparable Corpora Daniel Andrade, Masaaki Tsuchida, Takashi Onishi and Kai Ishikawa
<i>Exploring Verb Frames for Sentence Simplification in Hindi</i> Ankush Soni, Sambhav Jain and Dipti Misra Sharma1082
Dirichlet Processes for Joint Learning of Morphology and PoS Tags Burcu Can and Suresh Manandhar
Parser Accuracy in Quality Estimation of Machine Translation: A Tree Kernel Approach         Rasoul Samad Zadeh Kaljahi, Jennifer Foster, Raphael Rubino, Johann Roturier and Fred Hol-         lowood       1092
Attribute Relation Extraction from Template-inconsistent Semi-structured Text by Leveraging Site-level Knowledge Yang Liu, Fang Liu, Siwei Lai, Kang Liu, Guangyou Zhou and Jun Zhao
Optimum Parameter Selection for K.L.D. Based Authorship Attribution in Gujarati         Parth Mehta and Prasenjit Majumder         1102
Modeling User Leniency and Product Popularity for Sentiment Classification Wenliang Gao, Naoki Yoshinaga, Nobuhiro Kaji and Masaru Kitsuregawa1107
A Generalized LCS Algorithm and Its Application to Corpus Alignment Jin-Dong Kim
Semantic Naïve Bayes Classifier for Document Classification How Jing, Yu Tsao, Kuan-Yu Chen and Hsin-Min Wang1117

Cluster-based Web Summarization Yves Petinot, Kathleen McKeown and Kapil Thadani
Automated Activity Recognition in Clinical Documents Camilo Thorne, Marco Montali, Diego Calvanese, Elena Cardillo and Claudio Eccher 1129
Large-Scale Text Collection for Unwritten Languages Florian R. Hanke and Steven Bird
A Self-learning Template Approach for Recognizing Named Entities from Web Text Qian Liu, Bingyang Liu, Dayong Wu, Yue Liu and Xueqi Cheng
Accurate Parallel Fragment Extraction from Quasi–Comparable Corpora using Alignment Model and Translation Lexicon Chenhui Chu, Toshiaki Nakazawa and Sadao Kurohashi
Meta-level Statistical Machine Translation Sajad Ebrahimi, Kourosh Meshgi, Shahram Khadivi and Mohammad Ebrahim Shiri Ahmad Abady 1151
Bayesian Induction of Bracketing Inversion Transduction Grammars         Markus Saers and Dekai Wu         1158
<i>Estimating the Quality of Translated User-Generated Content</i> Raphael Rubino, Jennifer Foster, Rasoul Samad Zadeh Kaljahi, Johann Roturier and Fred Hol- lowood
Selective Combination of Pivot and Direct Statistical Machine Translation Models Ahmed El Kholy, Nizar Habash, Gregor Leusch, Evgeny Matusov and Hassan Sawaf 1174
Multiword Expressions in the Context of Statistical Machine Translation         Mahmoud Ghoneim and Mona Diab
Uncertainty Detection for Natural Language Watermarking György Szarvas and Iryna Gurevych
KySS 1.0: a Framework for Automatic Evaluation of Chinese Input Method Engines         Zhongye Jia and Hai Zhao       1195
Automatic Extraction of Social Networks from Literary Text: A Case Study on Alice in Wonderland Apoorv Agarwal, Anup Kotalwar and Owen Rambow
Using the Web to Train a Mobile Device Oriented Japanese Input Method Editor Xianchao Wu, Rixin Xiao and Xiaoxin Chen
A Novel Approach Towards Incorporating Context Processing Capabilities in NLIDB System Arjun Akula, Rajeev Sangal and Radhika Mamidi
Iterative Development and Evaluation of a Social Conversational Agent Annika Silvervarg and Arne Jönsson
A Hybrid Morphological Disambiguation System for Turkish Mucahid Kutlu and Ilyas Cicekli
A Dynamic Confusion Score for Dependency Arc Labels Sambhav Jain and Bhasha Agrawal

Increasing the Quality and Quantity of Source Language Data for Unsupervised Cross-Lingual POS
Tagging         Long Duong, Paul Cook, Steven Bird and Pavel Pecina         1243
Towards the Annotation of Penn TreeBank with Information StructureBernd Bohnet, Alicia Burga and Leo Wanner1250
Constituency and Dependency Relationship from a Tree Adjoining Grammar and Abstract Categorial Grammars Perspective Aleksandre Maskharashvili and Sylvain Pogodalla
Named Entity Extraction using Information Distance Sangameshwar Patil, Sachin Pawar and Girish Palshikar
Feature-based Neural Language Model and Chinese Word SegmentationMairgup Mansur, Wenzhe Pei and Baobao Chang
Human-Computer Interactive Chinese Word Segmentation: An Adaptive Dirichlet Process Mixture Model Approach
Tongfei Chen, Xiaojun Zou, Weimeng Zhu and Junfeng Hu
Effect of Non-linear Deep Architecture in Sequence Labeling Mengqiu Wang and Christopher D. Manning
Case Study of Model Adaptation: Transfer Learning and Online Learning Kenji Imamura
Source and Translation Classification using Most Frequent Words Zahurul Islam and Armin Hoenen
Comparison of Algorithmic and Human Assessments of Sentence Similarity John Mersch and R. Raymond Lang
<i>Effective Selectional Restrictions for Unsupervised Relation Extraction</i> Alan Akbik, Larysa Visengeriyeva, Johannes Kirschnick and Alexander Löser
Bootstrapping Semantic Lexicons for Technical Domains           Patrick Ziering, Lonneke van der Plas and Hinrich Schütze           1321
Long-Distance Time-Event Relation Extraction Alessandro Moschitti, Siddharth Patwardhan and Chris Welty
Unsupervised Extraction of Attributes and Their Values from Product Description Keiji Shinzato and Satoshi Sekine
Stance Classification of Ideological Debates: Data, Models, Features, and ConstraintsKazi Saidul Hasan and Vincent Ng1348
University Entrance Examinations as a Benchmark Resource for NLP-based Problem Solving Yusuke Miyao and Ai Kawazoe
Linguistically Aware Coreference Evaluation Metrics Chen Chen and Vincent Ng
An Empirical Assessment of Contemporary Online Media in Ad-Hoc Corpus Creation for Social Events

An Empirical Assessment of Contemporary Online Media in Ad-Hoc Corpus Creation for Social Events Kanika Narang, Seema Nagar, Sameep Mehta, L V Subramaniam and Kuntal Dey ..... 1375

Diagnosing Causes of Reading Difficulty using Bayesian Networks Pascual Martínez-Gómez and Akiko Aizawa	3
Word Co-occurrence Counts Prediction for Bilingual Terminology Extraction from Comparable Corpor           Amir Hazem and Emmanuel Morin         139	
Measuring the Effect of Discourse Relations on Blog SummarizationShamima Mithun and Leila Kosseim140	1
Supervised Sentence Fusion with Single-Stage Inference           Kapil Thadani and Kathleen McKeown	0
Detecting and Correcting Learner Korean Particle Omission Errors           Ross Israel, Markus Dickinson and Sun-Hee Lee         141	9
Automatic Identification of Learners' Language Background Based on Their Writing in Czech Katsiaryna Aharodnik, Marco Chang, Anna Feldman and Jirka Hana	.8

## **Conference Program**

## October 15, 2013 (Tuesday)

- 09:00-09:20 Opening
- 09:20-10:20 Keynote Speech Hwee Tou Ng (National University of Singapore)
- 10:20-10:50 Coffee Break
- 10:50-12:05 Regular Papers

## **Information Extraction I**

- 10:50–11:15 *Semi-Supervised Answer Extraction from Discussion Forums* Rose Catherine, Rashmi Gangadharaiah, Karthik Visweswariah and Dinesh Raghu
- 11:15–11:40 *WordTopic-MultiRank: A New Method for Automatic Keyphrase Extraction* Fan Zhang, Lian'en Huang and Bo Peng
- 11:40–12:05 *Towards Contextual Healthiness Classification of Food Items A Linguistic Approach* Michael Wiegand and Dietrich Klakow

## **Information Retrieval I**

- 10:50–11:15 Learning a Replacement Model for Query Segmentation with Consistency in Search Logs Wei Zhang, Yunbo Cao, Chin-Yew Lin, Jian Su and Chew-Lim Tan
- 11:15–11:40 *Precise Information Retrieval Exploiting Predicate-Argument Structures* Daisuke Kawahara, Keiji Shinzato, Tomohide Shibata and Sadao Kurohashi
- 11:40–12:05 *Global Model for Hierarchical Multi-Label Text Classification* Yugo Murawaki

## Syntax and Semantics

10:50–11:15	(Pre-)Annotation of Topic-Focus Articulation in Prague Czech-English Dependency Tree- bank Jiří Mírovský, Kateřina Rysová, Magdaléna Rysová and Eva Hajičová
11:15–11:40	Animacy Acquisition Using Morphological Case Riyaz Ahmad Bhat and Dipti Misra Sharma
11:40-12:05	<i>The Complexity of Math Problems – Linguistic, or Computational?</i> Takuya Matsuzaki, Hidenao Iwane, Hirokazu Anai and Noriko Arai
	Pragmatics and Discourse
10:50-11:15	Hybrid Models for Lexical Acquisition of Correlated Styles Julian Brooke and Graeme Hirst
11:15–11:40	<i>Introducing the Prague Discourse Treebank 1.0</i> Lucie Poláková, Jiří Mírovský, Anna Nedoluzhko, Pavlína Jínová, Šárka Zikánová and Eva Hajičová
11:40-12:05	<i>Multilingual Mention Detection for Coreference Resolution</i> Olga Uryupina and Alessandro Moschitti
12:05-13:30	Lunch
13:30-15:10	Regular Papers

## Text Mining

13:30–13:55	A Weakly Supervised Bayesian Model for Violence Detection in Social Media
	Amparo Elizabeth Cano Basave, Yulan He, Kang Liu and Jun Zhao

- 13:55–14:20 *Detecting Spammers in Community Question Answering* Zhuoye Ding, Yeyun Gong, Yaqian Zhou, Qi Zhang and Xuanjing Huang
- 14:20–14:45 *Chinese Informal Word Normalization: an Experimental Study* Aobo Wang, Min-Yen Kan, Daniel Andrade, Takashi Onishi and Kai Ishikawa
- 14:45–15:10 Feature Selection Using a Semantic Hierarchy for Event Recognition and Type Classification Yoonjae Jeong and Sung-Hyon Myaeng

## **Phonology and Morphology**

- 13:30–13:55 *Romanization-based Approach to Morphological Analysis in Korean SMS Text Processing* Youngsam Kim and Hyopil Shin
- 13:55–14:20 *Efficient Word Lattice Generation for Joint Word Segmentation and POS Tagging in Japanese* Nobuhiro Kaji and Masaru Kitsuregawa
- 14:20–14:45 *A Simple Approach to Unknown Word Processing in Japanese Morphological Analysis* Ryohei Sasano, Sadao Kurohashi and Manabu Okumura
- 14:45–15:10 *Chinese Word Segmentation by Mining Maximized Substrings* Mo Shen, Daisuke Kawahara and Sadao Kurohashi

## **POS Tagging and Parsing**

- 13:30–13:55 Capturing Long-distance Dependencies in Sequence Models: A Case Study of Chinese Part-of-speech Tagging Weiwei Sun, Xiaochang Peng and Xiaojun Wan
- 13:55–14:20 *Exploring Semantic Information in Hindi WordNet for Hindi Dependency Parsing* Sambhav Jain, Naman Jain, Aniruddha Tammewar, Riyaz Ahmad Bhat and Dipti Sharma
- 14:20–14:45 *Towards Robust Cross-Domain Domain Adaptation for Part-of-Speech Tagging* Tobias Schnabel and Hinrich Schütze
- 14:45–15:10 *Dependency Parsing for Identifying Hungarian Light Verb Constructions* Veronika Vincze, János Zsibrita and István Nagy T.

## **Dialogue and Dialogue Systems**

- 13:30–13:55 Written Dialog and Social Power: Manifestations of Different Types of Power in Dialog Behavior
   Vinodkumar Prabhakaran and Owen Rambow
- 13:55–14:20 *Evaluation of the Scusi? Spoken Language Interpretation System A Case Study* Thomas Kleinbauer, Ingrid Zukerman and Su Nam Kim
- 14:20–14:45 *A Noisy Channel Approach to Error Correction in Spoken Referring Expressions* Su Nam Kim, Ingrid Zukerman, Thomas Kleinbauer and Farshid Zavareh
- 14:45–15:10 Natural Language Query Refinement for Problem Resolution from Crowd-Sourced Semi-Structured Data Rashmi Gangadharaiah and Balakrishnan Narayanaswamy
- 15:10-15:40 Coffee Break
- 15:40-17:45 Regular Papers

## Machine Translation I

15:40–16:05	<i>Ensemble Triangulation for Statistical Machine Translation</i> Majid Razmara and Anoop Sarkar
16:05–16:30	<i>Robust Transliteration Mining from Comparable Corpora with Bilingual Topic Models</i> John Richardson, Toshiaki Nakazawa and Sadao Kurohashi
16:30–16:55	SuMT: A Framework of Summarization and MT Houda Bouamor, Behrang Mohit and Kemal Oflazer
16:55–17:15	<i>Tuning SMT with a Large Number of Features via Online Feature Grouping</i> Lemao Liu, Tiejun Zhao, Taro Watanabe and Eiichiro Sumita
17:15–17:35	Multimodal Comparable Corpora as Resources for Extracting Parallel Data: Parallel Phrases Extraction Haithem Afli, Loïc Barrault and Holger Schwenk
	Information Extraction II
15:40–16:05	Information Extraction II Bootstrapping Large-scale Named Entities using URL-Text Hybrid Patterns Chao Zhang, Shiqi Zhao and Haifeng Wang
15:40–16:05 16:05–16:30	Bootstrapping Large-scale Named Entities using URL-Text Hybrid Patterns
	Bootstrapping Large-scale Named Entities using URL-Text Hybrid Patterns Chao Zhang, Shiqi Zhao and Haifeng Wang Feature-Rich Segment-Based News Event Detection on Twitter
16:05–16:30	<ul> <li>Bootstrapping Large-scale Named Entities using URL-Text Hybrid Patterns Chao Zhang, Shiqi Zhao and Haifeng Wang</li> <li>Feature-Rich Segment-Based News Event Detection on Twitter Yanxia Qin, Yue Zhang, Min Zhang and Dequan Zheng</li> <li>Building Chinese Event Type Paradigm Based on Trigger Clustering</li> </ul>

## **Recent NLP Applications I**

15:40–16:05	Detecting Deceptive Opinions with Profile Compatibility Vanessa Wei Feng and Graeme Hirst
16:05–16:30	<i>Behind the Times: Detecting Epoch Changes using Large Corpora</i> Octavian Popescu and Carlo Strapparava
16:30–16:55	How Noisy Social Media Text, How Diffrnt Social Media Sources? Timothy Baldwin, Paul Cook, Marco Lui, Andrew MacKinlay and Li Wang
16:55–17:20	Who Had the Upper Hand? Ranking Participants of Interactions Based on Their Relative Power Vinodkumar Prabhakaran, Ajita John and Dorée D. Seligmann
17:20–17:45	Readability Indices for Automatic Evaluation of Text Simplification Systems: A Feasibility Study for Spanish Sanja Štajner and Horacio Saggion
	Language Resources I
15:40–16:05	Weasels, Hedges and Peacocks: Discourse-level Uncertainty in Wikipedia Articles Veronika Vincze
15:40–16:05 16:05–16:30	
	Veronika Vincze Automatically Developing a Fine-grained Arabic Named Entity Corpus and Gazetteer by utilizing Wikipedia
16:05–16:30	Veronika Vincze <i>Automatically Developing a Fine-grained Arabic Named Entity Corpus and Gazetteer by</i> <i>utilizing Wikipedia</i> Fahd Alotaibi and Mark Lee <i>Ranking Translation Candidates Acquired from Comparable Corpora</i>
16:05–16:30 16:30–16:55	Veronika Vincze Automatically Developing a Fine-grained Arabic Named Entity Corpus and Gazetteer by utilizing Wikipedia Fahd Alotaibi and Mark Lee Ranking Translation Candidates Acquired from Comparable Corpora Rima Harastani, Béatrice Daille and Emmanuel Morin Using the Semantic-Syntactic Interface for Reliable Arabic Modality Annotation
16:05–16:30 16:30–16:55 16:55–17:20	Veronika Vincze Automatically Developing a Fine-grained Arabic Named Entity Corpus and Gazetteer by utilizing Wikipedia Fahd Alotaibi and Mark Lee Ranking Translation Candidates Acquired from Comparable Corpora Rima Harastani, Béatrice Daille and Emmanuel Morin Using the Semantic-Syntactic Interface for Reliable Arabic Modality Annotation Rania Al-Sabbagh, Jana Diesner and Roxana Girju Mapping Rules for Building a Tunisian Dialect Lexicon and Generating Corpora

## October 16, 2013 (Wednesday)

09:00-10:15 Regular Papers

## **Machine Translation II**

- 09:00–09:25 *Hypothesis Refinement Using Agreement Constraints in Machine Translation* Ankur Gandhe and Rashmi Gangadharaiah
- 09:25–09:50 Scalable Variational Inference for Extracting Hierarchical Phrase-based Translation Rules

Baskaran Sankaran, Gholamreza Haffari and Anoop Sarkar

09:50–10:15 *A Topic-Triggered Language Model for Statistical Machine Translation* Heng Yu, Jinsong Su, Yajuan Lv and Qun Liu

## **Opnion Mining I**

- 09:00–09:25 Reserved Self-training: A Semi-supervised Sentiment Classification Method for Chinese Microblogs Zhiguang Liu, Xishuang Dong, Yi Guan and Jinfeng Yang
- 09:25–09:50 Enhancing Lexicon-Based Review Classification by Merging and Revising Sentiment Dictionaries Heeryon Cho, Jong-Seok Lee and Songkuk Kim
- 09:50–10:15 *Exploring the Effects of Word Roots for Arabic Sentiment Analysis* Shereen Oraby, Yasser El-Sonbaty and Mohamad Abou El-Nasr

## Semantic Processing I

- 09:00–09:25 *Topical Key Concept Extraction from Folksonomy* Han Xue, Bing Qin, Ting Liu and Chao Xiang
- 09:25–09:50 Uncovering Distributional Differences between Synonyms and Antonyms in a Word Space Model

Silke Scheible, Sabine Schulte im Walde and Sylvia Springorum

09:50–10:15 *Multilingual Word Sense Disambiguation Using Wikipedia* Bharath Dandala, Rada Mihalcea and Razvan Bunescu

## Statistical and ML Language Modeling I

- 09:00–09:25 Semantic v.s. Positions: Utilizing Balanced Proximity in Language Model Smoothing for Information Retrieval Rui Yan, Han Jiang, Mirella Lapata, Shou-De Lin, Xueqiang Lv and Xiaoming Li
- 09:25–09:50 An Unsupervised Parameter Estimation Algorithm for a Generative Dependency N-gram Language Model Chenchen Ding and Mikio Yamamoto
- 09:50–10:15 *Learning a Product of Experts with Elitist Lasso* Mengqiu Wang and Christopher D. Manning
- 10:15-10:45 Coffee Break
- 10:45-12:00 Regular Papers

## Information Extraction III / Question Answering

- 10:45–11:10 *Learning Efficient Information Extraction on Heterogeneous Texts* Henning Wachsmuth, Benno Stein and Gregor Engels
- 11:10–11:35 *TopicRank: Graph-Based Topic Ranking for Keyphrase Extraction* Adrien Bougouin, Florian Boudin and Béatrice Daille
- 11:35–12:00 *Understanding the Semantic Intent of Natural Language Query* Juan Xu, Qi Zhang and Xuanjing Huang

## **Opnion Mining II**

- 10:45–11:10 Sentiment Classification for Movie Reviews in Chinese Using Parsing-based Methods Wen-Juan Hou and Chuang-Ping Chang
- 11:10–11:35 *Sentiment Aggregation using ConceptNet Ontology* Subhabrata Mukherjee and Sachindra Joshi
- 11:35–12:00 Detecting Cyberbullying Entries on Informal School Websites Based on Category Relevance Maximization
   Taisei Nitta, Fumito Masui, Michal Ptaszynski, Yasutomo Kimura, Rafal Rzepka and Kenji Araki

## Semantic Processing II

- 10:45–11:10 *A Lexicon-based Investigation of Research Issues in Japanese Factuality Analysis* Kazuya Narita, Junta Mizuno and Kentaro Inui
- 11:10–11:35 *A Hierarchical Semantics-Aware Distributional Similarity Scheme* Shuqi Sun, Ke Sun, Shiqi Zhao, Haifeng Wang, Muyun Yang and Sheng Li
- 11:35–12:00 *Labeled Alignment for Recognizing Textual Entailment* Xiaolin Wang, Hai Zhao and Bao-Liang Lu

## Statistical and ML Language Modeling II

- 10:45–11:10 Context-Based Chinese Word Segmentation using SVM Machine-Learning Algorithm without Dictionary Support Chia-ming Lee and Chien-Kang Huang
- 11:10–11:35 A Common Case of Jekyll and Hyde: The Synergistic Effect of Using Divided Source Training Data for Feature Augmentation Yan Song and Fei Xia
- 11:35–12:00 Detecting Polysemy in Hard and Soft Cluster Analyses of German Preposition Vector Spaces Sylvia Springorum, Sabine Schulte im Walde and Jason Utt
- 12:00-13:10 Lunch
- 13:10-15:30 Short Papers

## Recent NLP Applications / Text Summarization / Opinion Mining

- 13:10–13:30 Generalized Abbreviation Prediction with Negative Full Forms and Its Application on Improving Chinese Web Search
   Xu Sun, Wenjie Li, Fanqi Meng and Houfeng Wang
- 13:30–13:50 Prosody-Based Unsupervised Speech Summarization with Two-Layer Mutually Reinforced Random Walk Sujay Kumar Jauhar, Yun-Nung Chen and Florian Metze
- 13:50–14:10 *Mining the Gaps: Towards Polynomial Summarization* Marina Litvak and Natalia Vanetik
- 14:10–14:30 *Detecting Domain Dedicated Polar Words* Raksha Sharma and Pushpak Bhattacharyya
- 14:30–14:50 *Can I Hear You? Sentiment Analysis on Medical Forums* Tanveer Ali, David Schramm, Marina Sokolova and Diana Inkpen

14:50–15:10 *Construction of Emotional Lexicon Using Potts Model* Braja Gopal Patra, Hiroya Takamura, Dipankar Das, Manabu Okumura and Sivaji Bandyopadhyay

15:10–15:30 Suicidal Tendencies: The Automatic Classification of Suicidal and Non-Suicidal Lyricists Using NLP Matthew Mulholland and Joanne Quinn

## Language Resources / Information Extraction / Text Mining

- 13:10–13:30 Unsupervised Word Class Induction for Under-resourced Languages: A Case Study on Indonesian Meladel Mistica, Jey Han Lau and Timothy Baldwin
- 13:30–13:50 An Efficient Active Learning Framework for New Relation Types Lisheng Fu and Ralph Grishman
- 13:50–14:10 *Parsing Dependency Paths to Identify Event-Argument Relations* Seung-Cheol Baek and Jong Park
- 14:10–14:30 *Augmentable Paraphrase Extraction Framework* MeiHua Chen, YiChun Chen, ShihTing Huang and Jason S. Chang
- 14:30–14:50 Automatic Prediction of Evidence-based Recommendations via Sentence-level Polarity Classification Abeed Sarker, Diego Mollá-Aliod and Cécile Paris
- 14:50–15:10 *Clustering Microtext Streams for Event Identification* Jie Yin
- 15:10–15:30 *Automatic Corpora Construction for Text Classification* Dandan Wang, Qingcai Chen, Xiaolong Wang and Bingyang Yu

# Information Retrieval / NLP for Educational Applications / Phonology and Morphology

- 13:10–13:30 *Learning to Generate Diversified Query Interpretations using Biconvex Optimization* Ramakrishna Bairi, Ambha A and Ganesh Ramakrishnan
- 13:30–13:50 Learning Based Approaches for Vietnamese Question Classification Using Keywords Extraction from the Web Dang Tran, Cuong Chu, Son Pham and Minh Nguyen
- 13:50–14:10 *Detecting Bot-Answerable Questions in Ubuntu Chat* David Uthus and David Aha
- 14:10–14:30 Alignment-based Annotation of Proofreading Texts toward Professional Writing Assistance Ngan Nguyen and Yusuke Miyao

gan Nguyên and Tusukê Miyao

- 14:30–14:50 *Toward Automatic Processing of English Metalanguage* Shomir Wilson
- 14:50–15:10 On the Effectiveness of Using Syntactic and Shallow Semantic Tree Kernels for Automatic Assessment of Essays Yllias Chali and Sadid A. Hasan
- 15:10–15:30 *Little by Little: Semi Supervised Stemming through Stem Set Minimization* Vasudevan N and Pushpak Bhattacharyya

#### Semantic Processing / Pragmatics and Discourse

- 13:10–13:30 *What Information is Helpful for Dependency Based Semantic Role Labeling* Yanyan Luo, Kevin Duh and Yuji Matsumoto
- 13:30–13:50 *Classifying Taxonomic Relations between Pairs of Wikipedia Articles* Or Biran and Kathleen McKeown
- 13:50–14:10 A Rule System for Chinese Time Entity Recognition by Comprehensive Linguistic Study Hongzhi Xu and Chu-Ren Huang
- 14:10–14:30 *Financial Sentiment Analysis for Risk Prediction* Chuan-Ju Wang, Ming-Feng Tsai, Tse Liu and Chin-Ting Chang
- 14:30–14:50 *Sense Disambiguation: From Natural Language Words to Mathematical Terms* Minh-Quoc Nghiem, Giovanni Yoko Kristianto, Goran Topic and Akiko Aizawa
- 14:50–15:10 *Adapting a State-of-the-art Anaphora Resolution System for Resource-poor Language* Utpal Sikdar, Asif Ekbal, Sriparna Saha, Olga Uryupina and Massimo Poesio
- 15:10–15:30 *Chinese Event Coreference Resolution: Understanding the State of the Art* Chen Chen and Vincent Ng
- 15:30-17:00 Poster Presentations and System Demonstrations

A Two-Step Named Entity Recognizer for Open-Domain Search Queries Andreas Eiselt and Alejandro Figueroa

A Comparison of Centrality Measures for Graph-Based Keyphrase Extraction Florian Boudin

*Translating Chinese Unknown Words by Automatically Acquired Templates* Ming-Hong Bai, Yu-Ming Hsieh, Keh-Jiann Chen and Jason S. Chang

Multilingual Lexicon Bootstrapping - Improving a Lexicon Induction System Using a Parallel Corpus

Patrick Ziering, Lonneke van der Plas and Hinrich Schütze

Mining Japanese Compound Words and Their Pronunciations from Web Pages and Tweets Xianchao Wu

A Factoid Question Answering System Using Answer Pattern Matching Nagehan Pala Er and Ilyas Cicekli

*Chinese Short Text Classification Based on Domain Knowledge* Xiao Feng, Yang Shen, Chengyong Liu, Wei Liang and Shuwu Zhang

Applying Graph-based Keyword Extraction to Document Retrieval Youngsam Kim, Munhyong Kim, Andrew Cattle, Julia Otmakhova, Suzi Park and Hyopil Shin

Semi-supervised Classification of Twitter Messages for Organization Name Disambiguation

Shu Zhang, Jianwei Wu, Dequan Zheng, Yao Meng and Hao Yu

Word in a Dictionary is used by Numerous Users Eiji Aramaki, Sachiko Maskawa, Mai Miyabe, Mizuki Morita and Sachi Yasuda

Extracting Evaluative Conditions from Online Reviews: Toward Enhancing Opinion Mining

Yuki Nakayama and Atsushi Fujii

Cognate Production using Character-based Machine Translation Lisa Beinborn, Torsten Zesch and Iryna Gurevych

An Empirical Study of Combing Multiple Models in Bengali Question Classification Somnath Banerjee and Sivaji Bandyopadhyay

A Two-Stage Classifier for Sentiment Analysis Dai Quoc Nguyen, Dat Quoc Nguyen and Son Bao Pham

Exploiting User Search Sessions for the Semantic Categorization of Question-like Informational Search Queries Alejandro Figueroa and Guenter Neumann

Influence of Part-of-Speech and Phrasal Category Universal Tag-set in Tree-to-Tree Translation Models

Francisco Oliveira, Derek F. Wong, Lidia S. Chao, Liang Tian and Liangye He

Interest Analysis using PageRank and Social Interaction Content Chung-chi Huang and Lun-Wei Ku

*Time Series Topic Modeling and Bursty Topic Detection of Correlated News and Twitter* Daichi Koike, Yusuke Takahashi, Takehito Utsuro, Masaharu Yoshioka and Noriko Kando

A Distant Supervision Approach for Identifying Perspectives in Unstructured User-Generated Text

Attapol Thamrongrattanarit, Colin Pollock, Benjamin Goldenberg and Jason Fennell

An Approach of Hybrid Hierarchical Structure for Word Similarity Computing by HowNet Jiangming Liu, Jinan Xu and Yujie Zhang

*Extracting Causes of Emotions from Text* Alena Neviarouskaya and Masaki Aono

Automated Grammar Correction Using Hierarchical Phrase-Based Statistical Machine Translation

Bibek Behera and Pushpak Bhattacharyya

*Finding Dependency Parsing Limits over a Large Spanish Corpus* Muntsa Padró, Miguel Ballesteros, Héctor Martínez and Bernd Bohnet

High Quality Dependency Selection from Automatic Parses Gongye Jin, Daisuke Kawahara and Sadao Kurohashi

*Building Specialized Bilingual Lexicons Using Word Sense Disambiguation* Dhouha Bouamor, Nasredine Semmar and Pierre Zweigenbaum

Predicate Argument Structure Analysis using Partially Annotated Corpora Koichiro Yoshino, Shinsuke Mori and Tatsuya Kawahara

*Statistical Dialogue Management using Intention Dependency Graph* Koichiro Yoshino, Shinji Watanabe, Jonathan Le Roux and John R. Hershey

*Repairing Incorrect Translation with Examples* Junguo Zhu, Muyun Yang, Sheng Li and Tiejun Zhao

*Phrase-based Parallel Fragments Extraction from Comparable Corpora* Xiaoyin Fu, Wei Wei, Shixiang Lu, Zhenbiao Chen and Bo Xu

*A Hybrid Approach for Anaphora Resolution in Hindi* Praveen Dakwale, Vandan Mujadia and Dipti M Sharma

*Structure Cognizant Pseudo Relevance Feedback* Arjun Atreya V, Yogesh Kakde, Pushpak Bhattacharyya and Ganesh Ramakrishnan

*Cross-Domain Answer Ranking using Importance Sampling* Anders Johannsen and Anders Søgaard

*Morphological Analysis of Tunisian Dialect* Inès Zribi, Mariem Ellouze Khemakhem and Lamia Hadrich Belguith

*Disambiguating Explicit Discourse Connectives without Oracles* Anders Johannsen and Anders Søgaard

*Updating Rare Term Vector Replacement* Tobias Berka and Marian Vajteršic

*Statistical Morphological Analyzer for Hindi* Deepak Kumar Malladi and Prashanth Mannem

Induction of Root and Pattern Lexicon for Unsupervised Morphological Analysis of Arabic Bilal Khaliq and John Carrol

Using Shallow Semantic Parsing and Relation Extraction for Finding Contradiction in Text

Minh Quang Nhat Pham, Minh Le Nguyen and Akira Shimazu

Using Transliteration of Proper Names from Arabic to Latin Script to Improve English-Arabic Word Alignment Nasredine Semmar and Houda Saadane

A Semi-Supervised Method for Arabic Word Sense Disambiguation Using a Weighted Directed Graph Laroussi Merhbene, Anis Zouaghi and Mounir Zrigui

Incremental Segmentation and Decoding Strategies for Simultaneous Translation Mahsa Yarmohammadi, Vivek Kumar Rangarajan Sridhar, Srinivas Bangalore and Baskaran Sankaran

*Two Case Studies on Translating Pronouns in a Deep Syntax Framework* Michal Novák, Zdenek Zabokrtsky and Anna Nedoluzhko

Bootstrapping Phrase-based Statistical Machine Translation via WSD Integration Hien Vu Huy, Phuong-Thai Nguyen, Tung-Lam Nguyen and M.L Nguyen

Orthographic and Morphological Processing for Persian-to-English Statistical Machine Translation

Mohammad Sadegh Rasooli, Ahmed El Kholy and Nizar Habash

Interoperability between Service Composition and Processing Pipeline: Case Study on the Language Grid and UIMA Trang Mai Xuan, Yohei Murakami, Donghui Lin and Toru Ishida

Improving Calculation of Contextual Similarity for Constructing a Bilingual Dictionary via a Third Language Takashi Taunakawa, Yasuka Yamamata and Hirawaki Kaji

Takashi Tsunakawa, Yosuke Yamamoto and Hiroyuki Kaji

*Two-Stage Pre-ordering for Japanese-to-English Statistical Machine Translation* Sho Hoshino, Yusuke Miyao, Katsuhito Sudoh and Masaaki Nagata

*Grammatical Error Correction Using Feature Selection and Confidence Tuning* Yang Xiang, Yaoyun Zhang, Xiaolong Wang, Chongqiang Wei, Wen Zheng, Xiaoqiang Zhou, Yuxiu Hu and Yang Qin

An Online Algorithm for Learning over Constrained Latent Representations using Multiple Views

Ann Clifton, Max Whitney and Anoop Sarkar

Synonym Acquisition Using Bilingual Comparable Corpora Daniel Andrade, Masaaki Tsuchida, Takashi Onishi and Kai Ishikawa

*Exploring Verb Frames for Sentence Simplification in Hindi* Ankush Soni, Sambhav Jain and Dipti Misra Sharma

Dirichlet Processes for Joint Learning of Morphology and PoS Tags Burcu Can and Suresh Manandhar

Parser Accuracy in Quality Estimation of Machine Translation: A Tree Kernel Approach Rasoul Samad Zadeh Kaljahi, Jennifer Foster, Raphael Rubino, Johann Roturier and Fred Hollowood

Attribute Relation Extraction from Template-inconsistent Semi-structured Text by Leveraging Site-level Knowledge

Yang Liu, Fang Liu, Siwei Lai, Kang Liu, Guangyou Zhou and Jun Zhao

*Optimum Parameter Selection for K.L.D. Based Authorship Attribution in Gujarati* Parth Mehta and Prasenjit Majumder

Modeling User Leniency and Product Popularity for Sentiment Classification Wenliang Gao, Naoki Yoshinaga, Nobuhiro Kaji and Masaru Kitsuregawa

A Generalized LCS Algorithm and Its Application to Corpus Alignment Jin-Dong Kim

Semantic Naïve Bayes Classifier for Document Classification How Jing, Yu Tsao, Kuan-Yu Chen and Hsin-Min Wang

*Cluster-based Web Summarization* Yves Petinot, Kathleen McKeown and Kapil Thadani

Automated Activity Recognition in Clinical Documents Camilo Thorne, Marco Montali, Diego Calvanese, Elena Cardillo and Claudio Eccher

*Large-Scale Text Collection for Unwritten Languages* Florian R. Hanke and Steven Bird

A Self-learning Template Approach for Recognizing Named Entities from Web Text Qian Liu, Bingyang Liu, Dayong Wu, Yue Liu and Xueqi Cheng

18:00-21:00 Banquet (Port of Nagoya Public Aquarium)

#### October 17, 2013 (Thursday)

- 09:00-10:00 Keynote Speech Roberto Navigli (Sapienza University of Rome)
- 10:00-10:30 Coffee Break
- 10:30-12:30 Short Papers

### **Machine Translation**

- 10:30–10:50 Accurate Parallel Fragment Extraction from Quasi–Comparable Corpora using Alignment Model and Translation Lexicon Chenhui Chu, Toshiaki Nakazawa and Sadao Kurohashi
- 10:50–11:10 *Meta-level Statistical Machine Translation* Sajad Ebrahimi, Kourosh Meshgi, Shahram Khadivi and Mohammad Ebrahim Shiri Ahmad Abady
- 11:10–11:30 *Bayesian Induction of Bracketing Inversion Transduction Grammars* Markus Saers and Dekai Wu
- 11:30–11:50 *Estimating the Quality of Translated User-Generated Content* Raphael Rubino, Jennifer Foster, Rasoul Samad Zadeh Kaljahi, Johann Roturier and Fred Hollowood
- 11:50–12:10 *Selective Combination of Pivot and Direct Statistical Machine Translation Models* Ahmed El Kholy, Nizar Habash, Gregor Leusch, Evgeny Matusov and Hassan Sawaf
- 12:10–12:30 *Multiword Expressions in the Context of Statistical Machine Translation* Mahmoud Ghoneim and Mona Diab

## **Recent NLP Applications / Dialogue and Dialogue Systems**

- 10:30-10:50 Uncertainty Detection for Natural Language Watermarking György Szarvas and Iryna Gurevych 10:50-11:10 KySS 1.0: a Framework for Automatic Evaluation of Chinese Input Method Engines Zhongye Jia and Hai Zhao 11:10-11:30 Automatic Extraction of Social Networks from Literary Text: A Case Study on Alice in Wonderland Apoorv Agarwal, Anup Kotalwar and Owen Rambow 11:30-11:50 Using the Web to Train a Mobile Device Oriented Japanese Input Method Editor Xianchao Wu, Rixin Xiao and Xiaoxin Chen 11:50-12:10 A Novel Approach Towards Incorporating Context Processing Capabilities in NLIDB System Arjun Akula, Rajeev Sangal and Radhika Mamidi 12:10-12:30 Iterative Development and Evaluation of a Social Conversational Agent Annika Silvervarg and Arne Jönsson POS Tagging and Parsing / Syntax and Semantics / Information Extraction 10:30-10:50 A Hybrid Morphological Disambiguation System for Turkish Mucahid Kutlu and Ilyas Cicekli 10:50-11:10 A Dynamic Confusion Score for Dependency Arc Labels Sambhav Jain and Bhasha Agrawal
- 11:10–11:30 Increasing the Quality and Quantity of Source Language Data for Unsupervised Cross-Lingual POS Tagging Long Duong, Paul Cook, Steven Bird and Pavel Pecina
- 11:30–11:50 *Towards the Annotation of Penn TreeBank with Information Structure* Bernd Bohnet, Alicia Burga and Leo Wanner
- 11:50–12:10 Constituency and Dependency Relationship from a Tree Adjoining Grammar and Abstract Categorial Grammars Perspective Aleksandre Maskharashvili and Sylvain Pogodalla

12:10-12:30	Named Entity Extraction using Information Distance Sangameshwar Patil, Sachin Pawar and Girish Palshikar
	Statistical and ML Language Modeling
10:30-10:50	<i>Feature-based Neural Language Model and Chinese Word Segmentation</i> Mairgup Mansur, Wenzhe Pei and Baobao Chang
10:50-11:10	Human-Computer Interactive Chinese Word Segmentation: An Adaptive Dirichlet Process Mixture Model Approach Tongfei Chen, Xiaojun Zou, Weimeng Zhu and Junfeng Hu
11:10–11:30	<i>Effect of Non-linear Deep Architecture in Sequence Labeling</i> Mengqiu Wang and Christopher D. Manning
11:30–11:50	<i>Case Study of Model Adaptation: Transfer Learning and Online Learning</i> Kenji Imamura
11:50-12:10	Source and Translation Classification using Most Frequent Words Zahurul Islam and Armin Hoenen
12:10-12:30	Comparison of Algorithmic and Human Assessments of Sentence Similarity John Mersch and R. Raymond Lang
12:30-14:00	Lunch
14:00-16:05	Regular Papers

## Information Extraction IV

14:05–14:30	Effective Selectional Restrictions for Unsupervised Relation Extraction Alan Akbik, Larysa Visengeriyeva, Johannes Kirschnick and Alexander Löser
14:30–14:55	Bootstrapping Semantic Lexicons for Technical Domains Patrick Ziering, Lonneke van der Plas and Hinrich Schütze
14:55–15:20	Long-Distance Time-Event Relation Extraction Alessandro Moschitti, Siddharth Patwardhan and Chris Welty
15:20–15:45	Unsupervised Extraction of Attributes and Their Values from Product Description Keiji Shinzato and Satoshi Sekine
15:45–16:05	Stance Classification of Ideological Debates: Data, Models, Features, and Constraints Kazi Saidul Hasan and Vincent Ng
	Language Resources II / Recent NLP Applications II
14:05–14:30	University Entrance Examinations as a Benchmark Resource for NLP-based Problem Solving Yusuke Miyao and Ai Kawazoe
14:30–14:55	<i>Linguistically Aware Coreference Evaluation Metrics</i> Chen Chen and Vincent Ng
14:55–15:20	An Empirical Assessment of Contemporary Online Media in Ad-Hoc Corpus Creation for Social Events Kanika Narang, Seema Nagar, Sameep Mehta, L V Subramaniam and Kuntal Dey
15:20–15:45	<b>Diagnosing Causes of Reading Difficulty using Bayesian Networks</b> Pascual Martínez-Gómez and Akiko Aizawa
15:45–16:05	Word Co-occurrence Counts Prediction for Bilingual Terminology Extraction from Com- parable Corpora Amir Hazem and Emmanuel Morin

## Text Summarization / NLP for Educational Applications

14:05–14:30	<i>Measuring the Effect of Discourse Relations on Blog Summarization</i> Shamima Mithun and Leila Kosseim
14:30-14:55	Supervised Sentence Fusion with Single-Stage Inference Kapil Thadani and Kathleen McKeown
14:55–15:20	<b>Detecting and Correcting Learner Korean Particle Omission Errors</b> Ross Israel, Markus Dickinson and Sun-Hee Lee
15:20–15:45	Automatic Identification of Learners' Language Background Based on Their Writing in Czech Katsiaryna Aharodnik, Marco Chang, Anna Feldman and Jirka Hana
16:05-16:35	Coffee Break
16:35-17:15	Best Papers
17:15-17:25	Future Conferences

17:25-17:35 Closing