Table of Contents

Computational Linguistics

Computational Linguistic Theories

Invited Talk:
What Is a Natural Language and How to Describe It?
Meaning-Text Approaches in Contrast with Generative Approaches 1
Sylvain Kahane

Invited Talk:
A Fully Lexicalized Grammar for French Based on Meaning-Text Theory 18
Sylvain Kahane

Modeling the Level of Involvement of Verbal Arguments 32
Leo Ferres

Magical Number Seven Plus or Minus Two:
Syntactic Structure Recognition in Japanese and English Sentences 43
Masaki Murata, *Kiyotaka Uchimoto*, *Qing Ma*, *Hitoshi Isahara*

Semantics

Spatio-temporal Indexing in Database Semantics 53
Roland Hausser

Russellian and Strawsonian Definite Descriptions in Situation Semantics 69
Roussanka Loukanova

Treatment of Personal Pronouns Based on Their Parameterization 80
Igor A. Bolshakov

Modeling Textual Context in Linguistic Pattern Matching 93
Slim Ben Hazez

Statistical Methods in Studying the Semantics of Size Adjectives 96
Valentyna Arkhelyuk

Numerical Model of the Strategy for Choosing Polite Expressions 98
Tamotsu Shirado, *Hitoshi Isahara*

Anaphora and Reference

Invited Talk:
Outstanding Issues in Anaphora Resolution 110
Ruslan Mitkov

PHORA: A NLP System for Spanish 126
Manuel Palomar, *Maximiliano Saiz-Noeda*, *Rafael Muñoz*, *Armando Suárez*, *Patricio Martínez-Barco*, *Andrés Montoyo*

Belief Revision on Anaphora Resolution 140
Sandra Roger

A Machine-Learning Approach to Estimating the Referential Properties of Japanese Noun Phrases 142
Masaki Murata, *Kiyotaka Uchimoto*, *Qing Ma*, *Hitoshi Isahara*

The Referring Expressions in the Other's Comment 155
Tamara Matulevich

Disambiguation

Lexical Semantic Ambiguity Resolution with Bigram-Based Decision Trees 157
Ted Pedersen

Interpretation of Compound Nominals Using WordNet 169
Leslie Barrett, *Anthony R. Davis*, *Bonnie J. Dorr*

Specification Marks for Word Sense Disambiguation: New Development 182
Andrés Montoyo, *Manuel Palomar*

Three Mechanisms of Parser Driving for Structure Disambiguation 192
Sofía N. Galicia-Haro, *Alexander Gelbukh*, *Igor A. Bolshakov*

Translation

Recent Research in the Field of Example-Based Machine Translation 195
Michael Carl

Intelligent Case Based Machine Translation System 197
Wang JianDe, *Chen ZhaoXiong*, *Huang HeYan*

A Hierarchical Phrase Alignment from English and Japanese Bilingual Text 206
Kenji Imamura

Text Generation

Title Generation Using a Training Corpus 208
Rong Jin, *Alexander G. Hauptmann*

A New Approach in Building a Corpus for Natural Language Generation Systems 216
M^{a} del Socorro Bernardos Galindo, *Guadalupe Aguado de Cea*

A Study on Text Generation from Non-verbal Information on 2D Charts 226
Ichiro Kobayashi

Interactive Multilingual Generation 239
José Coch, *Karine Chevreau*

A Computational Feature Analysis for Multilingual Character-to-Character Dialogue 251
Charles Callaway

Dictionaries and Corpora

Invited Talk:
Experiments on Extracting Knowledge from a Machine-Readable Dictionary of Synonym Differences 265
Diana Zaiu Inkpen, *Graeme Hirst*

Recognition of Author's Scientific and Technical Terms 281
Elena I. Bolshakova

Lexical-Semantic Tagging of an Italian Corpus 291
Nicoletta Calzolari, *Ornella Corazzari*, *Antonio Zampolli*

Meaning Sort – Three Examples: Dictionary Construction, Tagged Corpus Construction, and Information Presentation System 305
Masaki Murata, *Kyoko Kanzaki*, *Kiyotaka Uchimoto*, *Qing Ma*, *Hitoshi Isahara*

Converting Morphological Information Using Lexicalized and General Conversion 319
Mitsuo Shimohata, *Eiichiro Sumita*

Zipf and Heaps Laws' Coefficients Depend on Language 332
Alexander Gelbukh, *Grigori Sidorov*

Morphology

Applying Productive Derivational Morphology to Term Indexing of Spanish Texts 336
Jesús Vilares, *David Cabrero*, *Miguel A. Alonso*

Unification-Based Lexicon and Morphology with Speculative Feature Signalling 349
Björn Gambäck

A Method of Pre-computing Connectivity Relations for Japanese/Korean POS Tagging 363
Kazuaki Ando, *Tae-hun Lee*, *Masami Shishibori*, *Jun-ichi Aoe*

A Hybrid Approach of Text Segmentation Based on Sensitive Word Concept for NLP 375
Fuji Ren

Web-Based Arabic Morphological Analyzer 389
Jawad Berri, *Hamza Zidoum*, *Yacine Atif*

Parsing Techniques

Stochastic Parsing and Parallelism 401
Francisco-Mario Barcala, *Oscar Sacristán*, *Jorge Graña*

Practical Nondeterministic DR(*k*) Parsing on Graph-Structured Stack 411
José Fortes Gálvez, *Jacques Farré*, *Miguel Ángel Pérez Aguiar*

Intelligent Text Processing

Text Categorization

Text Categorization Using Adaptive Context Trees 423
Jean-Philippe Vert

Text Categorization through Multistrategy Learning and Visualization 437
Ali Hadjarian, *Jerzy Bala*, *Peter Pachowicz*

Automatic Topic Identification Using Ontology Hierarchy 444
Sabrina Tiun, *Rosni Abdullah*, *Tang Enya Kong*

Software for Creating Domain-Oriented Dictionaries and Document Clustering in Full-Text Databases 454
Pavel Makagonov, *Konstantin Sboychakov*

Chi-Square Classifier for Document Categorization 457
Mikhail Alexandrov, *Alexander Gelbukh*, *George Lozovoi*

Information Retrieval

Information Retrieval of Electronic Medical Records 460
Anne-Marie Currie, *Jocelyn Cohan*, *Larisa Zlatic*

Automatic Keyword Extraction Using Domain Knowledge 472
Anette Hulth, *Jussi Karlgren*, *Anna Jonsson*, *Henrik Boström*, *Lars Asker*

Approximate VLDC Pattern Matching in Shared-Forest 483
Manuel Vilares, *Francisco J. Ribadas*, *Victor M. Darriba*

Knowledge Engineering for Intelligent Information Retrieval 495
Guido Drexel

Is Peritext a Key for Audiovisual Documents?
The Use of Texts Describing Television Programs to Assist Indexing 505
Karine Lespinasse, *Bruno Bachimont*

An Information Space Using Topic Identification for Retrieved Documents 507
David Escorial

Structure Identification. Text Mining

Contextual Rules for Text Analysis 509
Dina Wonsever, *Jean-Luc Minel*

Finding Correlative Associations among News Topics 524
Manuel Montes-y-Gómez, *Aurelio López-López*, *Alexander Gelbukh*

Author Index 527