

SPIRE 2004 Program

Tuesday, October 5

13:30 – 18:30 Excursion to Venice

19:00 Welcome Reception and Registration

Wednesday, October 6

08:00 Registration

08:45 Opening

09:00 – 10:00 Session 1

*Information Retrieval at the intersection of Logic, Probability,
and Vector Spaces: Knowing and Guessing*

C.J. “Keith” van Rijsbergen (University of Glasgow, UK)

10:00 – 11:15 Session 2

10:00 *Efficient One Dimensional Real Scaled Matching*

Amihoud Amir, Ayelet Butman, Moshe Lewenstein, Ely Porat, Dekel Tsur (Israel)

10:25 *Linear Time Algorithm for the Longest Common Repeat Problem*

Inbok Lee (Korea), Costas Iliopoulos (UK), Kunsoo Park (Korea)

10:50 *Automaton-based Sublinear Keyword Pattern Matching*

Loek Cleophas, Bruce W. Watson, Gerard Zwaan (The Netherlands)

11:15 – 11:45 Coffe Break

11:45 – 13:00 Session 3

11:45 *Techniques for Efficient Query Expansion*

Bodo Billerbeck, Justin Zobel (Australia)

12:10 *Inferring Query Performance Using Pre-retrieval Predictors*

Ben He, Iadh Ounis (UK)

12:35 *A Scalable System for Identifying Co-Derivative Documents*

Yaniv Bernstein, Justin Zobel (Australia)

13:00 – 14:10 Lunch

14:10 – 15:00 Session 4

14:10 *Searching for a Set of Correlated Patterns*

Shmuel T. Klein, Riva Shalom (Israel)

14:20 *Linear Nondeterministic Dawg String Matching Algorithm*

Longtao He, Binxing Fang (China)

14:30 *Permuted and Scaled String Matching*

Ayelet Butman, Revital Eres, Gad Landau (Israel)

- 14:40** *Bit-Parallel Branch&Bound Algorithm for Transposition Invariant LCS*
Kjell Lemström (Finland), Gonzalo Navarro (Chile), Yoan Pinzon (Colombia, UK)
- 14:50** *A New Feature Normalization Scheme Based on Eigenspace for Noisy Speech Recognition*
Yoonjae Lee, Hanseok Ko (South Korea)

15:00 – 15:50 Session 5

- 15:00** *Fast Detection of Common Sequence Structure Patterns in RNAs*
Rolf Backofen, Sven Siebert (Germany)
- 15:25** *An Efficient Algorithm for the Longest Tandem Scattered Subsequence Problem*
Adrian Kosowski (Poland)

15:50 – 16:20 Coffee Break

16:20 – 17:10 Session 6

- 16:20** *Automatic Document Categorization Based on k-NN and Object-Based Thesauri*
Sun Lee Bang, Hyung Jeong Yang, Jae Dong Yang (South Korea)
- 16:45** *Indexing Text Documents Based on Topic Identification*
Manonton Butarbutar, Susan McRoy (USA)

17:10 – 18:00 Session 7

- 17:10** *A Cross-comparison for Two-dimensional Text Categorization*
Giorgio Maria Di Nunzio (Italy)
- 17:20** *Evaluation of Web Page Representations by Content through Clustering*
Arantza Casillas, Víctor Fresno, M. Teresa González de Lena, Raquel Martínez (Spain)
- 17:30** *Evaluating Relevance Feedback and Display Strategies for Searching on Small Displays*
Vishwa Vinay, Ingemar Cox, Natasa Milic-Frayling, Ken Wood (UK)
- 17:40** *Information Extraction by Embedding HMM to the Set of Induced Linguistic Feature Space*
Hyun Chul Lee (Canada), Jian Chang Mao (USA)
- 17:50** *Finding Cross-lingual Spelling Variants*
Krister Lindén (Finland)

Thursday, October 7

08:30 Registration

09:00 – 10:00 Session 8

Matching, Retrieval, Learning, and Discovery
Setsuo Arikawa (Kyushu University, Japan)

10:00 – 11:15 Session 9

- 10:00** *An Efficient Index Data Structure with the Capabilities of Suffix Trees and Suffix Arrays for Alphabets of Non-Negligible Size*
Dong Kyue Kim, Jeong Eun Jeon, Heejin Park (South Korea)
- 10:25** *An Alphabet-Friendly FM-index*
Paolo Ferragina, Giovanni Manzini (Italy), Veli Mäkinen (Finland), Gonzalo Navarro (Chile)
- 10:50** *Concurrency Control and I/O-Optimality in Bulk Insertion*
Kerttu Pollari-Malmi, Eljas Soisalon-Soininen (Finland)

11:15 – 11:45 Coffee Break

11:45 – 13:00 Session 10

- 11:45** *Processing Conjunctive and Phrase Queries with the Set-Based Model*
Bruno Póssas, Nivio Ziviani, Berthier Ribeiro-Neto, Wagner Meira Jr. (Brazil)
- 12:10** *Metric Indexing for the Vector Model in Text Retrieval*
Tomás Skopal, Pavel Moravec, Jaroslav Pokorný, Václav Snásel (Czech Republic)
- 12:35** *Negations and Document Length in Logical Retrieval*
David E. Losada, Alvaro Barreiro (Spain)

13:00 – 14:10 Lunch

14:10 – 15:00 Session 11

- 14:10** *An Improvement and an Extension on the Hybrid Index for Approximate String Matching*
Heikki Hyyrö (Finland, Japan)
- 14:20** *First Huffman, then Burrows-Wheeler: A Simple Alphabet-Independent FM-Index*
Szymon Grabowski (Poland), Veli Mäkinen (Finland), Gonzalo Navarro (Chile)
- 14:30** *Metric Indexes for Approximate String Matching in a Dictionary*
Kimmo Fredriksson (Finland)
- 14:40** *Simple Implementation of String B-trees*
Joong Chae Na, Kunsoo Park (South Korea)
- 14:50** *Alphabet Permutation for Differentially Encoding Text*
Gad Landau, Ofer Levi (Israel), Steven Skiena (USA)

15:00 – 15:50 Session 12

- 15:00** *A Space-Saving Linear-Time Algorithm for Grammar-Based Compression*
Hiroshi Sakamoto, Takuya Kida, Shinichi Shimozono (Japan)
- 15:25** *Simple, Fast, and Efficient Natural Language Adaptive Compression*
Nieves R. Brisaboa, Antonio Fariña (Spain), Gonzalo Navarro (Chile), Jose R. Paramá (Spain)

15:50 – 16:20 Coffee Break

16:20 – 17:10 Session 13

- 16:20** *Searching XML Documents Using Relevance Propagation*
Karen Sauvagnat, Mohand Boughanem, Claude Christment (France)
- 16:45** *Dealing with Syntactic Variation through a Locality-Based Approach*
Jesús Vilares, Miguel A. Alonso (Spain)

20:00 Conference Dinner

Friday, October 8

09:00 Registration

09:30 – 10:00 Session 15

- 09:30** *Efficient Extraction of Structured Motifs Using Box-Links*
Alexandra M. Carvalho, Ana T. Freitas,
Arlindo L. Oliveira (Portugal), Marie-France Sagot (France)

09:40 *Efficient Computation of Balancedness in Binary Sequence Generators*
Pedro Garcíá-Mochales, Amparo Fúster-Sabater (Spain)

09:50 *On Asymptotic Finite-State Error Repair*
Manuel Vilares, Juan Otero, Jorge Graña (Spain)

10:00 – 11:15 Session 16

10:00 *New Algorithms for Finding Monad Patterns in DNA Sequences*
Ravi Vijaya Satya, Amar Mukherjee (USA)

10:25 *Motif Extraction from Weighted Sequences*
Costas Iliopoulos (England), Katerina Perdikuri,
Evangelos Theodoridis (Greece), Kostas Tsihlias (England)

10:50 *Longest Motifs with a Functionally Equivalent Central Block*
Maxime Crochemore (France, UK), Raffaele Giancarlo (Italy),
Marie-France Sagot (France, UK)

11:15 – 11:45 Coffee Break

11:45 – 12:35 Session 17

11:45 *On the Transformation Distance Problem*
Behshad Behzadi, Jean-Marc Steyaert (France)

12:10 *On Classification of Strings*
Eljas Soisalon-Soininen, Tatu Ylönen (Finland)

12:35 Closing