

Table of Contents

Invited Talks and Tutorials

Phase Transitions in Computer Science	1
<i>Jennifer Chayes (Microsoft)</i>	
The Internet, the Web, and Algorithms	2
<i>Christos H. Papadimitriou (University of California, Berkeley)</i>	
Erdős Magic	3
<i>Joel Spencer (Courant Institute)</i>	
Open Problems in Computational Geometry	4
<i>Jorge Urrutia (UNAM)</i>	
Quantum Algorithms	12
<i>Umesh Vazirani (University of California, Berkeley)</i>	
Testing and Checking of Finite State Systems	14
<i>Mihalis Yannakakis (Avaya Laboratories)</i>	
From Algorithms to Cryptography	15
<i>Fabrizio Luccio, Linda Pagli (Università di Pisa)</i>	
Dihomotopy as a Tool in State Space Analysis	16
<i>Éric Goubault (CEA Saclay), Martin Raussen (Aalborg University)</i>	

Regular Contributions

Algorithms for Local Alignment with Length Constraints	38
<i>Abdullah N. Arslan, Ömer Egecioğlu (University of California, Santa Barbara)</i>	
An Algorithm That Builds a Set of Strings Given Its Overlap Graph	52
<i>Marília D.V. Braga, João Meidanis (University of Campinas)</i>	
Conversion between Two Multiplicatively Dependent Linear Numeration Systems	64
<i>Christiane Frougny (L.I.A.F.A.)</i>	
Star Height of Reversible Languages and Universal Automata	76
<i>Sylvain Lombardy, Jacques Sakarovitch (CNRS / ENST)</i>	
Weakly Iterated Block Products of Finite Monoids	91
<i>Howard Straubing (Boston College), Denis Thérien (McGill University)</i>	

The Hidden Number Problem in Extension Fields and Its Applications . . .	105
<i>María Isabel González Vasco (University of Oviedo), Mats Näslund (Ericsson Research), Igor E. Shparlinski (Macquarie University)</i>	
The Generalized Weil Pairing and the Discrete Logarithm Problem on Elliptic Curves	118
<i>Theodoulos Garefalakis (University of London)</i>	
Random Partitions with Non Negative r^{th} Differences	131
<i>Rod Canfield (University of Georgia Athens), Sylvie Corteel (Université de Versailles), Pawel Hitczenko (Drexel University)</i>	
Beta-Expansions for Cubic Pisot Numbers	141
<i>Frédérique Bassino (Université de Marne La Vallée)</i>	
Facility Location Constrained to a Polygonal Domain	153
<i>Prosenjit Bose, Qingda Wang (Carleton University)</i>	
A Deterministic Polynomial Time Algorithm for Heilbronn's Problem in Dimension Three	165
<i>Hanno Lefmann (Technische Universität Chemnitz), Niels Schmitt (Ruhr-Universität Bochum)</i>	
A Metric Index for Approximate String Matching	181
<i>Edgar Chávez (Universidad Michoacana), Gonzalo Navarro (Universidad de Chile)</i>	
On Maximal Suffices and Constant-Space Linear-Time Versions of KMP Algorithm	196
<i>Wojciech Rytter (Liverpool University, Uniwersytet Warszawski)</i>	
On the Power of BFS to Determine a Graphs Diameter	209
<i>Derek G. Corneil (University of Toronto), Feodor F. Dragan (Kent State University), Ekkehard Köhler (Technische Universität Berlin)</i>	
k -pseudosnakes in Large Grids	224
<i>Martín Matamala (Universidad de Chile), Erich Prisner (University of Maryland), Ivan Rapaport (Universidad de Chile)</i>	
$L(2, 1)$ -Coloring Matrogenic Graphs	236
<i>Tiziana Calamoneri, Rossella Petreschi (University of Rome)</i>	
Pipeline Transportation of Petroleum Products with No Due Dates	248
<i>Ruy Luiz Milidiú, Artur Alves Pessoa, Eduardo Sany Laber (PUC-Rio)</i>	
Ancestor Problems on Pure Pointer Machines	263
<i>Enrico Pontelli, Desh Ranjan (New Mexico State University)</i>	

Searching in Random Partially Ordered Sets	278
<i>Renato Carmo (Universidade Federal do Paraná, Universidade de São Paulo), Jair Donadelli, Yoshiharu Kohayakawa, (Universidade de São Paulo), Eduardo Laber (Universidade Católica do Rio de Janeiro)</i>	
Packing Arrays	293
<i>Brett Stevens (Carleton University), Eric Mendelsohn (University of Toronto)</i>	
Generalized Shannon Code Minimizes the Maximal Redundancy	306
<i>Michael Drmota (TU Wien), Wojciech Szpankowski (Purdue University)</i>	
An Improved Algorithm for Sequence Comparison with Block Reversals...	319
<i>S. Muthukrishnan (AT&T Labs), S. Cenk Şahinalp (Case Western Reserve University)</i>	
Pattern Matching and Membership for Hierarchical Message Sequence Charts.....	326
<i>Blaise Genest, Anca Muscholl (Université Paris VII)</i>	
Improved Exact Algorithms for MAX-SAT	341
<i>Jianer Chen (Texas A&M University), Iyad A. Kanj (DePaul University)</i>	
Characterising Strong Normalisation for Explicit Substitutions.....	356
<i>Steffen van Bakel (Imperial College), Mariangiola Dezani-Ciancaglini (Università di Torino)</i>	
Parameters in Pure Type Systems.....	371
<i>Roel Bloo (Eindhoven University of Technology), Fairouz Kamareddine (Heriot-Watt University), Twan Laan, Rob Nederpelt (Eindhoven University of Technology)</i>	
Category, Measure, Inductive Inference: A Triality Theorem and Its Applications	386
<i>Rūsiņš Freivalds (University of Latvia), Carl H. Smith (University of Maryland)</i>	
Verification of Embedded Reactive Fifo Systems	400
<i>Frédéric Herbreteau, Franck Cassez, Alain Finkel, Olivier Roux (CNRS), Grégoire Sutre (CNRS, University of California)</i>	
Electronic Jury Voting Protocols	415
<i>Alejandro Hevia (U. of California, San Diego), Marcos Kiwi (U. Chile-CNRS)</i>	
Square Roots Modulo p	430
<i>Gonzalo Tornaría (University of Texas at Austin)</i>	

Finding Most Sustainable Paths in Networks with Time-Dependent Edge Reliabilities	435
<i>Goran Konjevod, Soohyun Oh, Andréa W. Richa (Arizona State University)</i>	
Signals for Cellular Automata in Dimension 2 or Higher	451
<i>Jean-Christophe Dubacq (Université de Paris-Sud), Véronique Terrier (Université de Caen)</i>	
Holographic Trees	465
<i>Paolo Boldi, Sebastiano Vigna (Università degli Studi di Milano)</i>	
On the Spanning Ratio of Gabriel Graphs and β -skeletons	479
<i>Prosenjit Bose (Carleton University), Luc Devroye (McGill University), William Evans, David Kirkpatrick (University of British Columbia)</i>	
In-Place Planar Convex Hull Algorithms	494
<i>Hervé Brönnimann, John Iacono (Polytechnic University), Jyrki Katajainen (University of Copenhagen), Pat Morin (McGill University), Jason Morrison (Carleton University), Godfried Toussaint (McGill University)</i>	
The Level Ancestor Problem Simplified	508
<i>Michael A. Bender (SUNY Stony Brook), Martín Farach-Colton (Google & Rutgers University)</i>	
Flow Metrics	516
<i>Claudson F. Bornstein (UFRJ), Santosh Vempala (MIT)</i>	
On Logical Descriptions of Regular Languages	528
<i>Howard Straubing (Boston College)</i>	
Computing Boolean Functions from Multiple Faulty Copies of Input Bits .	539
<i>Mario Szegedy, Xiaomin Chen (Rutgers)</i>	
Inapproximability Results on Stable Marriage Problems	554
<i>Magnús Halldórsson (University of Iceland), Kazuo Iwama, Shuichi Miyazaki, Yasufumi Morita (Kyoto University)</i>	
Tight Bounds for Online Class-Constrained Packing	569
<i>Hadas Shachnai (Bell Laboratories), Tami Tamir (Technion)</i>	
On-line Algorithms for Edge-Disjoint Paths in Trees of Rings	584
<i>R. Sai Anand, Thomas Erlebach (Eidgenössische Technische Hochschule Zürich)</i>	

Massive Quasi-Clique Detection	598
<i>James Abello (AT&T Labs Research), Mauricio G.C. Resende (AT&T Labs Research), Sandra Sudarsky (Siemens Corporate Research)</i>	
Improved Tree Decomposition Based Algorithms for Domination-like Problems	613
<i>Jochen Alber, Rolf Niedermeier (Universität Tübingen)</i>	
Author Index	629

LATIN 2002: Theoretical Informatics

5th Latin American Symposium, Cancun, Mexico, April

3-6, 2002, Proceedings

Rajsbaum, S. (Ed.)

2002, XIV, 638 p., Softcover

ISBN: 978-3-540-43400-9