

Table of Contents

Invited Talks

Distributed Quantum Computing	1
<i>Harry Buhrman and Hein Röhrig</i>	
Selfish Routing in Non-cooperative Networks: A Survey	21
<i>R. Feldmann, M. Gairing, Thomas Lücking, Burkhard Monien, and Manuel Rode</i>	
Process Algebraic Frameworks for the Specification and Analysis of Cryptographic Protocols	46
<i>Roberto Gorrieri and Fabio Martinelli</i>	
Semantic and Syntactic Approaches to Simulation Relations	68
<i>Jo Hannay, Shin-ya Katsumata, and Donald Sannella</i>	
On the Computational Complexity of Conservative Computing	92
<i>Giancarlo Mauri and Alberto Leporati</i>	
Constructing Infinite Graphs with a Decidable MSO-Theory	113
<i>Wolfgang Thomas</i>	
Towards a Theory of Randomized Search Heuristics	125
<i>Ingo Wegener</i>	

Contributed Papers

Adversarial Models for Priority-Based Networks	142
<i>C. Álvarez, M. Blesa, J. Díaz, A. Fernández, and M. Serna</i>	
On Optimal Merging Networks	152
<i>Kazuyuki Amano and Akira Maruoka</i>	
Problems which Cannot Be Reduced to Any Proper Subproblems	162
<i>Klaus Ambos-Spies</i>	
ACID-Unification Is NEXPTIME-Decidable	169
<i>Siva Anantharaman, Paliath Narendran, and Michael Rusinowitch</i>	
Completeness in Differential Approximation Classes	179
<i>G. Ausiello, C. Bazgan, M. Demange, and V. Th. Paschos</i>	
On the Length of the Minimum Solution of Word Equations in One Variable	189
<i>Kensuke Baba, Satoshi Tsuruta, Ayumi Shinohara, and Masayuki Takeda</i>	

Smoothed Analysis of Three Combinatorial Problems	198
<i>Cyril Banderier, René Beier, and Kurt Mehlhorn</i>	
Inferring Strings from Graphs and Arrays	208
<i>Hideo Bannai, Shunsuke Inenaga, Ayumi Shinohara, and Masayuki Takeda</i>	
Faster Algorithms for k -Medians in Trees	218
<i>Robert Benkoczi, Binay Bhattacharya, Marek Chrobak, Lawrence L. Larmore, and Wojciech Rytter</i>	
Periodicity and Transitivity for Cellular Automata in Besicovitch Topologies	228
<i>F. Blanchard, J. Cervelle, and E. Formenti</i>	
Starting with Nondeterminism: The Systematic Derivation of Linear-Time Graph Layout Algorithms	239
<i>Hans L. Bodlaender, Michael R. Fellows, and Dimitrios M. Thilikos</i>	
Error-Bounded Probabilistic Computations between MA and AM	249
<i>Elmar Böhler, Christian Glaßer, and Daniel Meister</i>	
A Faster FPT Algorithm for Finding Spanning Trees with Many Leaves	259
<i>Paul S. Bonsma, Tobias Brueggemann, and Gerhard J. Woeginger</i>	
Symbolic Analysis of Crypto-Protocols Based on Modular Exponentiation	269
<i>Michele Boreale and Maria Grazia Buscemi</i>	
Denotational Testing Semantics in Coinductive Form	279
<i>Michele Boreale and Fabio Gadducci</i>	
Lower Bounds for General Graph-Driven Read-Once Parity Branching Programs	290
<i>Henrik Brosenne, Matthias Homeister, and Stephan Waack</i>	
The Minimal Graph Model of Lambda Calculus	300
<i>Antonio Bucciarelli and Antonino Salibra</i>	
Unambiguous Automata on Bi-infinite Words	308
<i>Olivier Carton</i>	
Relating Hierarchy of Temporal Properties to Model Checking	318
<i>Ivana Černá and Radek Pelánek</i>	
Arithmetic Constant-Depth Circuit Complexity Classes	328
<i>Hubie Chen</i>	

Inverse NP Problems	338
<i>Hubie Chen</i>	
A Linear-Time Algorithm for 7-Coloring 1-Planar Graphs	348
<i>Zhi-Zhong Chen and Mitsuharu Kouno</i>	
Generalized Satisfiability with Limited Occurrences per Variable: A Study through Delta-Matroid Parity	358
<i>Victor Dalmau and Daniel K. Ford</i>	
Randomized Algorithms for Determining the Majority on Graphs	368
<i>Gianluca De Marco and Andrzej Pelc</i>	
Using Transitive-Closure Logic for Deciding Linear Properties of Monoids	378
<i>Christian Delhommé, Teodor Knapik, and D. Gnanaraj Thomas</i>	
Linear-Time Computation of Local Periods	388
<i>Jean-Pierre Duval, Roman Kolpakov, Gregory Kucherov, Thierry Lecroq, and Arnaud Lefebvre</i>	
Two Dimensional Packing: The Power of Rotation	398
<i>Leah Epstein</i>	
Approximation Schemes for the Min-Max Starting Time Problem	408
<i>Leah Epstein and Tamir Tassa</i>	
Quantum Testers for Hidden Group Properties	419
<i>Katalin Friedl, Frédéric Magniez, Miklos Santha, and Pranab Sen</i>	
Local LTL with Past Constants Is Expressively Complete for Mazurkiewicz Traces	429
<i>Paul Gastin, Madhavan Mukund, and K. Narayan Kumar</i>	
LTL with Past and Two-Way Very-Weak Alternating Automata	439
<i>Paul Gastin and Denis Oddoux</i>	
Match-Bounded String Rewriting Systems	449
<i>Alfons Geser, Dieter Hofbauer, and Johannes Waldmann</i>	
Probabilistic and Nondeterministic Unary Automata	460
<i>Gregor Gramlich</i>	
On Matroid Properties Definable in the MSO Logic	470
<i>Petr Hliněný</i>	
Characterizations of Catalytic Membrane Computing Systems	480
<i>Oscar H. Ibarra, Zhe Dang, Omer Egecioglu, and Gaurav Saxena</i>	

Augmenting Local Edge-Connectivity between Vertices and Vertex Subsets in Undirected Graphs	490
<i>Toshimasa Ishii and Masayuki Hagiwara</i>	
Scheduling and Traffic Allocation for Tasks with Bounded Splittability	500
<i>Piotr Krysta, Peter Sanders, and Berthold Vöcking</i>	
Computing Average Value in Ad Hoc Networks	511
<i>Miroslaw Kutylowski and Daniel Letkiewicz</i>	
A Polynomial-Time Algorithm for Deciding True Concurrency Equivalences of Basic Parallel Processes	521
<i>Stawomir Lasota</i>	
Solving the Sabotage Game Is PSPACE-Hard	531
<i>Christof Löding and Philipp Rohde</i>	
The Approximate Well-Founded Semantics for Logic Programs with Uncertainty	541
<i>Yann Loyer and Umberto Straccia</i>	
Which Is the Worst-Case Nash Equilibrium?	551
<i>Thomas Lücking, Marios Mavronicolas, Burkhard Monien, Manuel Rode, Paul Spirakis, and Imrich Vrto</i>	
A Unique Decomposition Theorem for Ordered Monoids with Applications in Process Theory	562
<i>Bas Luttik</i>	
Generic Algorithms for the Generation of Combinatorial Objects	572
<i>Conrado Martínez and Xavier Molinero</i>	
On the Complexity of Some Problems in Interval Arithmetic	582
<i>K. Meer</i>	
An Abduction-Based Method for Index Relaxation in Taxonomy-Based Sources	592
<i>Carlo Meghini, Yannis Tzitzikas, and Nicolas Spyratos</i>	
On Selection Functions that Do Not Preserve Normality	602
<i>Wolfgang Merkle and Jan Reimann</i>	
On Converting CNF to DNF	612
<i>Peter Bro Miltersen, Jaikumar Radhakrishnan, and Ingo Wegener</i>	
A Basis of Tiling Motifs for Generating Repeated Patterns and Its Complexity for Higher Quorum	622
<i>N. Pisanti, M. Crochemore, R. Grossi, and M.-F. Sagot</i>	

On the Complexity of Some Equivalence Problems for Propositional Calculi	632
<i>Steffen Reith</i>	
Quantified Mu-Calculus for Control Synthesis	642
<i>Stéphane Riedweg and Sophie Pinchinat</i>	
On Probabilistic Quantified Satisfiability Games	652
<i>Marcin Rychlik</i>	
A Completeness Property of Wilke's Tree Algebras	662
<i>Saeed Salehi</i>	
Symbolic Topological Sorting with OBDDs	671
<i>Philipp Woelfel</i>	
Ershov's Hierarchy of Real Numbers	681
<i>Xizhong Zheng, Robert Rettinger, and Romain Gengler</i>	
Author Index	691



<http://www.springer.com/978-3-540-40671-6>

Mathematical Foundations of Computer Science 2003
28th International Symposium, MFCS 2003, Bratislava,
Slovakia, August 25-29, 2003, Proceedings
Rovan, B.; Vojtas, P. (Eds.)
2003, XIII, 692 p., Softcover
ISBN: 978-3-540-40671-6