

Table of Contents

Invited Talks

The Potential of Grid, Virtual Laboratories and Virtual Organizations for Bio-sciences	1
<i>Hamideh Afsarmanesh, Ersin Kaletas, and Louis O. Hertzberger</i>	
Agreement Problems in Fault-Tolerant Distributed Systems	10
<i>Bernadette Charron-Bost</i>	
Negotiating the Semantic Gap: From Feature Maps to Semantic Landscapes	33
<i>William I. Grosky and Rong Zhao</i>	
Inference in Rule-Based Systems by Interpolation and Extrapolation Revisited	53
<i>Sándor Jenei</i>	
Recent Advances in Wavelength Routing	58
<i>Christos Kaklamanis</i>	
From Metacomputing to Grid Computing: Evolution or Revolution?	73
<i>Domenico Laforenza</i>	
Knowledge-Based Control Systems	75
<i>Simon Lambert</i>	
Beyond the Turing Limit: Evolving Interactive Systems	90
<i>Jan van Leeuwen and Jiří Wiedermann</i>	
Distributed Computations by Autonomous Mobile Robots	110
<i>Nicola Santoro</i>	
Formal Verification Methods for Industrial Hardware Design	116
<i>Anna Slobodová</i>	
How Can Computer Science Contribute to Knowledge Discovery?	136
<i>Osamu Watanabe</i>	

Contributed Papers

On the Approximability of Interactive Knapsack Problems	152
<i>Isto Aho</i>	

Model Checking Communication Protocols	160
<i>Pablo Argón, Giorgio Delzanno, Supratik Mukhopadhyay, and Andreas Podelski</i>	
Pipelined Decomposable BSP Computers	171
<i>Martin Beran</i>	
Quantum versus Probabilistic One-Way Finite Automata with Counter . . .	181
<i>Richard Bonner, Rūsiņš Freivalds, and Maksim Kravtsev</i>	
How to Employ Reverse Search in Distributed Single Source Shortest Paths	191
<i>Luboš Brim, Ivana Černá, Pavel Krčál, and Radek Pelánek</i>	
Multi-agent Systems as Concurrent Constraint Processes	201
<i>Luboš Brim, David Gilbert, Jean-Marie Jacquet, and Mojmír Křetínský</i>	
ADST: An Order Preserving Scalable Distributed Data Structure with Constant Access Costs	211
<i>Adriano Di Pasquale and Enrico Nardelli</i>	
Approximative Learning of Regular Languages	223
<i>Henning Fernau</i>	
Quantum Finite State Transducers	233
<i>Rūsiņš Freivalds and Andreas Winter</i>	
Lemmatizer for Document Information Retrieval Systems in JAVA	243
<i>Leo Galambos</i>	
The Reconstruction of Polyominoes from Approximately Orthogonal Projections	253
<i>Maciej Gębala</i>	
Bounding Lamport's Bakery Algorithm	261
<i>Prasad Jayanti, King Tan, Gregory Friedland, and Amir Katz</i>	
Fast Independent Component Analysis in Kernel Feature Spaces	271
<i>András Kocsor and János Csirik</i>	
On Majority Voting Games in Trees	282
<i>Rastislav Kráľovič</i>	
Time and Space Complexity of Reversible Pebbling	292
<i>Richard Kráľovič</i>	
The HiQoS Rendering System	304
<i>Tomas Plachetka, Olaf Schmidt, and Frank Albracht</i>	

Two-Way Restarting Automata and J-Monotonicity	316
<i>Martin Plátek</i>	
P-Hardness of Equivalence Testing on Finite-State Processes	326
<i>Zdeněk Sawa and Petr Jančar</i>	
Keynote Talk	
Software Geography: Physical and Economic Aspects	336
<i>Vaughan R. Pratt</i>	
Author Index	347