
Contents

On the Syntactic Complexity of Darwinian Membrane Systems <i>J. Dassow, E. Csuhaj-Varjú</i>	1
Solving 3-COL with Tissue P Systems <i>D. Díaz-Pernil, M.A. Gutiérrez-Naranjo, M.J. Pérez-Jiménez</i>	17
Discrete Solution of Differential Equations by P Metabolic Algorithm <i>F. Fontana, V. Manca</i>	31
Particular Results for Variants of P Systems with One Catalyst in One Membrane <i>R. Freund</i>	41
Small Universal Antiport P Systems and Universal Multiset Grammars <i>R. Freund, M. Oswald</i>	51
Fractals and P Systems <i>M.A. Gutiérrez-Naranjo, M.J. Pérez-Jiménez</i>	65
An Approach to the Degree of Parallelism in P Systems <i>M.A. Gutiérrez-Naranjo, M.J. Pérez-Jiménez, A. Riscos-Núñez</i>	87
Normal Forms for Spiking Neural P Systems <i>O.H. Ibarra, A. Păun, Gh. Păun, A. Rodríguez-Patón, P. Sosik, S. Woodworth</i>	105
Three Quantum Algorithms to Solve 3-SAT <i>A. Leporati, S. Felloni</i>	137
Further Remarks on Trace Languages in P Systems with Symport/Antiport <i>G. Liu, M. Ionescu</i>	161
Topics and Problems in Metabolic P Systems <i>V. Manca</i>	173

Reaction Cycles in Membrane Systems and Molecular Dynamics <i>M. Muskulus, S. Houweling, G. Rozenberg, D. Besozzi, P. Cazzaniga, D. Pescini, R. Brijder</i>	185
On an Idea of a (Possibly) Uniform Data Base for Life Sciences from Molecular Biology to Cognitive Psychology <i>A. Obtułowicz</i>	209
Small Universal Spiking Neural P Systems <i>A. Păun, Gh. Păun</i>	213
2006 Research Topics in Membrane Computing <i>Gh. Păun</i>	235
The Growth of Branching Structures with P Systems <i>A. Romero-Jiménez, M.A. Gutiérrez-Naranjo, M.J. Pérez-Jiménez</i>	253
A Class of P Automata for Characterizing Context-free Languages <i>G. Vaszil</i>	267
Author index	277

Contents of Volume I

Encodings and Arithmetic Operations in P Systems <i>A. Alhazov, C. Bonchiş, G. Ciobanu, C. Isbaşa</i>	1
Uniform Solution to QSAT Using Polarizationless Active Membranes <i>A. Alhazov, M.J. Pérez-Jiménez</i>	29
Some Notes on the Interplay Between P Systems and Chemotaxis in Bacteria <i>I.I. Ardelean, D. Besozzi</i>	41
Two Universality Results for (Mem)Brane Systems <i>D. Besozzi, N. Busi, G. Franco, R. Freund, Gh. Păun</i>	49
Decidability of Divergence for Catalytic P Systems <i>N. Busi</i>	63
A Case Study in (Mem)Brane Computation: Generating $\{n^2 \mid n \geq 1\}$ <i>N. Busi, M.A. Gutiérrez-Naranjo</i>	81
Handling Markov Chains with Membrane Computing <i>M. Cardona, M.A. Colomer, M.J. Pérez-Jiménez, A. Zaragoza</i>	99
Multiset Random Context Grammars, Checkers, and Transducers <i>M. Cavaliere, R. Freund, M. Oswald, D. Sburlan</i>	113
Time-Driven Computations in P Systems <i>M. Cavaliere, C. Zandron</i>	133
Stochastic Approaches in P Systems for Simulating Biological Systems <i>P. Cazzaniga, D. Pescini, F.J. Romero-Campero, D. Besozzi, G. Mauri</i>	145
Rewriting in P Systems: An Algebraic Approach <i>R. Ceterchi</i>	165

On String Languages Generated by Spiking Neural P Systems <i>H. Chen, R. Freund, M. Ionescu, Gh. Păun, M.J. Pérez-Jiménez</i>	169
On the Efficiency of Spiking Neural P Systems <i>H. Chen, M. Ionescu, T.-O. Ishdorj</i>	195
On Trace Languages Generated by Spiking Neural P Systems <i>H. Chen, M. Ionescu, A. Păun, Gh. Păun, B. Popa</i>	207
Computing Along the Axon <i>H. Chen, T.-O. Ishdorj, Gh. Păun</i>	225
Spiking Neural P Systems with Extended Rules <i>H. Chen, T.-O. Ishdorj, Gh. Păun, M.J. Pérez-Jiménez</i>	241
Small Computationally Complete Symport/Antiport P Systems <i>E. Csuhaj-Varjú, M. Margenstern, G. Vaszil, S. Verlan</i>	267
Author Index	283