
Contents

Flattening P Systems with Active Membranes <i>B. Aman, G. Ciobanu</i>	1
Studying the Chlorophyll Fluorescence in Cyanobacteria with Membrane Computing Techniques <i>I. Ardelean, D. Díaz-Pernil, M.A. Gutiérrez-Naranjo, F. Peña-Cantillana, I. Sarchizian</i>	9
A GPU Simulation for Evolution-Communication P Systems with Energy Having no Antiport Rules <i>Z.F. Bangalan, K.A.N. Soriano, R.A.B. Juayong, F.G.C. Cabarle, H.N. Adorna, M.A. Martínez-del-Amor</i>	25
2D P Colonies and Modelling of Liquid Flow Over the Earth's Surface <i>L. Cienciala, L. Ciencialová, M. Langer</i>	51
Scenario Based P Systems <i>G. Ciobanu, D. Sburlan</i>	67
Universal P Systems: One Catalyst Can Be Sufficient <i>R. Freund, Gh. Păun</i>	81
Kernel P Systems – Version I <i>M. Gheorghe, F. Ipate, C. Dragomir, L. Mierlă, L. Valencia-Cabrera, M. García-Quismondo, M.J. Pérez-Jiménez</i>	97
Rete Algorithm for P Systems Simulators <i>C. Graciani, M.A. Gutiérrez-Naranjo, A. Riscos-Núñez</i>	125
On Controlled P Systems <i>K. Krithivasan, Gh. Păun, A. Ramanujan</i>	137
An Application of the PCol Automata in Robot Control <i>M. Langer, L. Cienciala, L. Ciencialová, M. Perdek, A. Kelemenová</i> ...	153

Turing Incompleteness of Asynchronous P Systems with Active Membranes <i>A. Leporati, L. Manzoni, A.E. Porreca</i>	165
Improving Universality Results on Parallel Enzymatic Numerical P Systems <i>A. Leporati, A.E. Porreca, C. Zandron, G. Mauri</i>	177
Simulating a Family of Tissue P Systems Solving SAT on the GPU <i>M.A. Martínez-del-Amor, J. Pérez-Carrasco, M.J. Pérez-Jiménez</i>	201
Continuous Versus Discrete: Some Topics with a Regard to Membrane Computing <i>A. Obtułowicz</i>	221
The “Catalytic Borderline” Between Universality and Non-Universality of P Systems <i>Gh. Păun</i>	225
Some Open Problems about Numerical P Systems <i>Gh. Păun</i>	235
Bridging Membrane and Reaction Systems. Further Results and Research Topics <i>Gh. Păun, M.J. Pérez-Jiménez, G. Rozenberg</i>	243
Analysing Gene Networks with PDP Systems. <i>Arabidopsis thaliana</i> , a Case Study <i>L. Valencia-Cabrera, M. García-Quismondo, M.J. Pérez-Jiménez, Y. Su, H. Yu, L. Pan</i>	257
Author Index	273