
Contents

Dictionary Search and Update by P Systems with String-Objects and Active Membranes <i>A. Alhazov, S. Cojocaru, L. Malahova, Yu. Rogozhin</i>	1
P Systems with Minimal Insertion and Deletion <i>A. Alhazov, A. Krassovitskiy, Yu. Rogozhin, S. Verlan</i>	9
A Short Note on Reversibility in P Systems <i>A. Alhazov, K. Morita</i>	23
Mutual Mobile Membranes Systems with Surface Objects <i>B. Aman, G. Ciobanu</i>	29
Communication and Stochastic Processes in Some Bacterial Populations: Significance for Membrane Computing <i>I.I. Ardelean</i>	41
P Systems with Endosomes <i>R. Barbuti, G. Caravagna, A. Maggiolo-Schettini, P. Milazzo</i>	51
P System Based Model of an Ecosystem of the Scavenger Birds <i>M. Cardona, M.A. Colomer, A. Margalida, I. Pérez-Hurtado, M.J. Pérez-Jiménez, D. Sanuy</i>	65
Characterizing the Aperiodicity of Irreducible Markov Chains by Using P Systems <i>M. Cardona, M.A. Colomer, M.J. Pérez-Jiménez</i>	81
On Very Simple P Colonies <i>L. Ciencialová, E. Csuhaj-Varjú, A. Kelemenová, G. Vaszil</i>	97
Cell-like Versus Tissue-like P Systems by Means of Sevilla Carpets <i>D. Díaz-Pernil, P. Gallego-Ortiz, M.A. Gutiérrez-Naranjo, M.J. Pérez-Jiménez, A. Riscos-Núñez</i>	109

P Systems and Topology: Some Suggestions for Research <i>P. Frisco</i>	123
Modeling Reaction Kinetics in Low-dimensional Environments with Conformon P Systems: Comparison with Cellular Automata and New Rate Laws <i>P. Frisco, R. Grima</i>	133
P-Lingua 2.0: New Features and First Applications <i>M. García-Quismondo, R. Gutiérrez-Escudero, I. Pérez-Hurtado, M.J. Pérez-Jiménez</i>	141
Characterizing Tractability by Tissue-Like P Systems <i>R. Gutiérrez-Escudero, M.J. Pérez-Jiménez, M. Rius-Font</i>	169
Performing Arithmetic Operations with Spiking Neural P Systems <i>M.A. Gutiérrez-Naranjo, A. Leporati</i>	181
Solving the N-Queens Puzzle with P Systems <i>M.A. Gutiérrez-Naranjo, M.A. Martínez-del-Amor, I. Pérez-Hurtado, M.J. Pérez-Jiménez</i>	199
Computing Backwards with P Systems <i>M.A. Gutiérrez-Naranjo, M.J. Pérez-Jiménez</i>	211
Notch Signalling and Cellular Fate Choices: A Short Review <i>B.M. Henley</i>	227
Mutation Based Testing of P Systems <i>F. Ipate, M. Gheorghe</i>	231
Author index	247