

Table of Contents

Invited Lectures

Computational Power of Symport/Antiport: History, Advances, and Open Problems	1
<i>Artiom Alhazov, Rudolf Freund, Yurii Rogozhin</i>	
Structural Operational Semantics of P Systems	32
<i>Oana Andrei, Gabriel Ciobanu, Dorel Lucanu</i>	
Some Recent Results Concerning Deterministic P Systems	50
<i>Oscar H. Ibarra</i>	
Membrane Algorithms	56
<i>Taishin Y. Nishida</i>	
On Evolutionary Lineages of Membrane Systems	68
<i>Petr Sosík, Ondřej Valík</i>	

Regular Presentations

Number of Protons/Bi-stable Catalysts and Membranes in P Systems. Time-Freeness	90
<i>Artiom Alhazov</i>	
Symbol/Membrane Complexity of P Systems with Symport/Antiport Rules	97
<i>Artiom Alhazov, Rudolf Freund, Marion Oswald</i>	
On P Systems as a Modeling Tool for Biological Systems	115
<i>Francesco Bernardini, Marian Gheorghe, Natalio Krasnogor, Ravie C. Muniyandi, Mario J. Pérez-Jiménez, Francisco José Romero-Campero</i>	
Encoding-Decoding Transitional Systems for Classes of P Systems	135
<i>Luca Bianco, Vincenzo Manca</i>	
On the Computational Power of the Mate/Bud/Drip Brane Calculus: Interleaving vs. Maximal Parallelism	145
<i>Nadia Busi</i>	
A Membrane Computing System Mapped on an Asynchronous, Distributed Computational Environment	160
<i>Guido Casiraghi, Claudio Ferretti, Alberto Gallini, Giancarlo Mauri</i>	

P Systems with Memory	166
<i>Paolo Cazzaniga, Alberto Leporati, Giancarlo Mauri, Claudio Zandron</i>	
Algebraic and Coalgebraic Aspects of Membrane Computing	182
<i>Gabriel Ciobanu, Viorel Mihai Gontineac</i>	
P Systems and the Modeling of Biochemical Oscillations	200
<i>Federico Fontana, Luca Bianco, Vincenzo Manca</i>	
P Systems, Petri Nets, and Program Machines	210
<i>Pierluigi Frisco</i>	
On the Power of Dissolution in P Systems with Active Membranes	226
<i>Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, Agustín Riscos-Núñez, Francisco J. Romero-Campero</i>	
A Linear Solution for QSAT with Membrane Creation	243
<i>Miguel A. Gutiérrez-Naranjo, Mario J. Pérez-Jiménez, Francisco J. Romero-Campero</i>	
On Symport/Antiport P Systems and Semilinear Sets	255
<i>Oscar H. Ibarra, Sara Woodworth, Hsu-Chun Yen, Zhe Dang</i>	
Boolean Circuits and a DNA Algorithm in Membrane Computing	274
<i>Mihai Ionescu, Tsernen-Onolt Ishdorj</i>	
Towards a Petri Net Semantics for Membrane Systems	294
<i>Jetty H.C.M. Kleijn, Maciej Koutny, Grzegorz Rozenberg</i>	
Quantum Sequential P Systems with Unit Rules and Energy Assigned to Membranes	312
<i>Alberto Leporati, Giancarlo Mauri, Claudio Zandron</i>	
Editing Distances Between Membrane Structures	328
<i>Damián López, José M. Sempere</i>	
Relational Membrane Systems	344
<i>Adam Obtułowicz</i>	
On the Rule Complexity of Universal Tissue P Systems	358
<i>Yuriii Rogozhin, Sergey Verlan</i>	
Non-cooperative P Systems with Priorities Characterize PsET0L ...	365
<i>Dragoș Sburlan</i>	
Author Index	373