

| | |
|-------------------------|---|
| 1. Record Nr. | UNINA9910484350503321 |
| Titolo | Membrane Computing : 9th International Workshop, WMC 2008, Edinburgh, UK, July 28-31, 2008, Revised Selected and Invited Papers / / edited by David Corne, Pierluigi Frisco, Gheorghe Pun, Grzegorz Rozenberg, Arto Salomaa |
| Pubbl/distr/stampa | Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2009 |
| ISBN | 3-540-95885-1 |
| Edizione | [1st ed. 2009.] |
| Descrizione fisica | 1 online resource (IX, 403 p.) |
| Collana | Theoretical Computer Science and General Issues, , 2512-2029 ; ; 5391 |
| Altri autori (Persone) | HutchisonDavid |
| Disciplina | 004 |
| Soggetti | Computer science Life sciences Computer programming Machine theory Computer simulation Computer Science Life Sciences Programming Techniques Theory of Computation Formal Languages and Automata Theory Computer Modelling |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Bibliographic Level Mode of Issuance: Monograph |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Invited Lectures -- Investigation of a Biological Repair Scheme -- An Introduction to BioModel Engineering, Illustrated for Signal Transduction Pathways -- Multilevel Modeling of Morphogenesis -- A Definition of Cellular Interface Problems -- A Multiscale Modeling Framework Based on P Systems -- Regular Papers -- On the Qualitative Analysis of Conformon P Systems -- Dual P Systems -- Solving PP-Complete and #P-Complete Problems by P Systems with Active Membranes -- Fast Synchronization in P Systems -- Membrane Systems Using Noncooperative Rules with Unconditional Halting -- Modeling Ecosystems Using P Systems: The Bearded Vulture, a Case |

Study -- MetaPlab: A Computational Framework for Metabolic P Systems -- Usefulness States in New P System Communication Architectures -- A P-Lingua Programming Environment for Membrane Computing -- On Testing P Systems -- Hebbian Learning from Spiking Neural P Systems View -- Event-Driven Metamorphoses of P Systems -- Effects of HIV-1 Proteins on the Fas-Mediated Apoptotic Signaling Cascade: A Computational Study of Latent CD4+ T Cell Activation -- Transforming State-Based Models to P Systems Models in Practice -- How Redundant Is Your Universal Computation Device? -- Enumerating Membrane Structures -- Toward an MP Model of Non-Photochemical Quenching -- Applications of Page Ranking in P Systems -- An Algorithm for Non-deterministic Object Distribution in P Systems and Its Implementation in Hardware -- First Steps Towards a Wet Implementation for π -DPP -- Defining and Executing P Systems with Structured Data in K -- Translating Multiset Tree Automata into P Systems.

Sommario/riassunto

This book constitutes the thoroughly refereed extended postproceedings of the 9th International Workshop on Membrane Computing, WMC 2008, held in Edinburgh, UK, in July 2008 under the auspices of the European Molecular Computing Consortium (EMCC) and the Molecular Computing Task Force of IEEE Computational Intelligence Society. The 22 revised full papers presented together with 5 invited papers went through two rounds of reviewing and improvement. The papers in this volume cover all the main directions of research in membrane computing, ranging from theoretical topics in mathematics and computer science to application issues. A special attention was paid to the interaction of membrane computing with biology and computer science, focusing both on the biological roots of membrane computing, on applications of membrane computing in biology and medicine, and on possible electronically based implementations.
