1. Record Nr. UNISA996465388403316

Titolo	Transactions on Computational Systems Biology XIII [[electronic resource] /] / edited by Ralph-Johan Back, Ion Petre, Erik de Vink
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2011
ISBN	3-642-19748-5
Edizione	[1st ed. 2011.]
Descrizione fisica	1 online resource (VII, 193 p.)
Collana	Transactions on Computational Systems Biology, , 1861-2075 ; ; 6575
Disciplina	570.285
Soggetti	Bioinformatics Computer simulation Computers Artificial intelligence Algorithms Mathematical statistics Computational Biology/Bioinformatics Simulation and Modeling Computation by Abstract Devices Artificial Intelligence Algorithm Analysis and Problem Complexity Probability and Statistics in Computer Science
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	Evolutionary Dynamics of a Population of Cells with a Toxin Suppressor Gene -- Translation from the Quantified Implicit Process Flow Abstraction in SBGN-PD Diagrams to Bio-PEPA Illustrated on the Cholesterol Pathway -- Impulse-Based Dynamic Simulation of Deformable Biological Structures -- Delay Stochastic Simulation of Biological Systems: A Purely Delayed Approach -- Modelling Ammonium Transporters in Arbuscular Mycorrhiza Symbiosis -- Genetically Regulated Metabolic Networks: Gale-Nikaido Modules and Differential Inequalities -- Cultural Epigenetics: On the Heritability of Complex Diseases -- Refining Dynamics of Gene Regulatory Networks

	in a Stochastic -Calculus Framework.
Sommario/riassunto	The LNCS journal Transactions on Computational Systems Biology is devoted to inter- and multidisciplinary research in the fields of computer science and life sciences and supports a paradigmatic shift in the techniques from computer and information science to cope with the new challenges arising from the systems oriented point of view of biological phenomena. This, the 13th Transactions on Computational Systems Biology volume, guest edited by Ralph-Johan Back, Ion Petre, and Erik de Vink, focuses on Computational Models for Cell Processes and features a number of carefully selected and enhanced contributions initially presented at the CompMod workshop, which took place in Eindhoven, The Netherlands, in November 2009. From different points of view and following various approaches, the papers cover a wide range of topics in systems biology, addressing the dynamics and the computational principles of this emerging field.