1.	Record Nr.	UNINA9910484838203321
	Titolo	Algebraic Biology : Second International Conference, AB 2007, Castle of Hagenberg, Austria, July 2-4, 2007, Proceedings / / edited by Hirokazu Anai, Katsuhisa Horimoto, Temur Kutsia
	Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2007
	ISBN	3-540-73433-3
	Edizione	[1st ed. 2007.]
	Descrizione fisica	1 online resource (XIII, 379 p.)
	Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4545
	Disciplina	574.0151
	Soggetti	Computer science
		Machine theory
		Computer science - Mathematics
		Bioinformatics
		Software engineering
		Computer Science Logic and Foundations of Programming
		Formal Languages and Automata Theory
		Symbolic and Algebraic Manipulation
		Computational and Systems Biology
		Software Engineering
	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	Algebraic Systems Biology: Theses and Hypotheses -- Discrete Models of Biochemical Networks: The Toric Variety of Nested Canalyzing Functions -- Membrane Computing as a Framework for Bio-modeling (An Informal Glimpse) -- Relating Attractors and Singular Steady States in the Logical Analysis of Bioregulatory Networks -- Translating Time-Course Gene Expression Profiles into Semi-algebraic Hybrid Automata Via Dimensionality Reduction -- On Proving the Absence of Oscillations in Models of Genetic Circuits -- Attenuation Regulation as a Term Rewriting System -- Glucose-Insulin Control of Type1 Diabetic Patients in H2/H??? Space Via Computer Algebra -- Exact Parameter Determination for Parkinson's Disease Diagnosis with PET Using an Algebraic Approach -- Efficient Haplotype Inference with Pseudo-

boolean Optimization -- An Algebraic Algorithm for the Identification of Glass Networks with Periodic Orbits Along Cyclic Attractors -- Analyzing Pathways Using SAT-Based Approaches -- Algorithmic Algebraic Model Checking IV: Characterization of Metabolic Networks -- Cascaded Games -- On Differential Algebraic Decision Methods for the Estimation of Anaerobic Digestion Models -- Protein Structure Prediction Using Residual Dipolar Couplings -- A Stochastic Pi Calculus for Concurrent Objects -- Modeling Static Biological Compartments with Beta-binders -- Deducing Interactions in Partially Unspecified Biological Systems -- Reduction of Algebraic Parametric Systems by Rectification of Their Affine Expanded Lie Symmetries -- Prefix Reversals on Binary and Ternary Strings -- Toric Ideals of Phylogenetic Invariants for the General Group-Based Model on Claw Trees K 1,n -- Inference of Protein-Protein Interactions by Using Co-evolutionary Information -- A Short Survey of Automated Reasoning -- Inference ofComplex Regulatory Network for the Cell Cycle System in Saccharomyces Cerevisiae -- Manifestation and Exploitation of Invariants in Bioinformatics.

Sommario/riassunto	This volume constitutes the refereed proceedings of the Second International Conference on Algebraic Biology. The conference served as an interdisciplinary forum for the presentation of research on all aspects of the application of symbolic computation in biology, including computer algebra, computational logic, and related methods. Papers also examine solutions to problems in biology using symbolic methods.