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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 3305
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Soggetti	Computers Algorithms Computer simulation Computer communication systems Bioinformatics Computation by Abstract Devices Algorithm Analysis and Problem Complexity Simulation and Modeling Computer Communication Networks
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Tom Thumb Algorithm and von Neumann Universal Constructor -- Elementary Probabilistic Cellular Automata with Memory in Cells -- Universal Construction on Self-Timed Cellular Automata -- Computing Phase Shifts of Maximum-Length 90/150 Cellular Automata Sequences -- Cellular Automata Evolution for Distributed Data Mining -- A Comparative Study of Optimum-Time Synchronization Algorithms for One-Dimensional Cellular Automata -- A Survey -- -- A Cellular Automaton Model for an Immune-Derived Search Algorithm -- Randomized Computation with Cellular Automata -- Applying Cell-DEVS in 3D Free-Form Shape Modeling -- Universality of Hexagonal Asynchronous Totalistic Cellular Automata -- Efficient Simulation of CA

with Few Activities -- Perturbing the Topology of the Game of Life Increases Its Robustness to Asynchrony -- Local Information in One-Dimensional Cellular Automata -- Diffusion Controlled Cellular Automaton Performing Mesh Partitioning -- Cellular Automata with Majority Rule on Evolving Network -- Searching for Pattern-Forming Asynchronous Cellular Automata -- An Evolutionary Approach -- Heredity, Complexity, and Surprise: Embedded Self-Replication and Evolution in CA -- Unlearning Phenomena in Co-evolution of Non-uniform Cellular Automata -- Evolving Transition Rules for Multi Dimensional Cellular Automata -- Traffic of Ants on a Trail: A Stochastic Modelling and Zero Range Process -- Cellular Automata and Roundabout Traffic Simulation -- Acquisition of Local Neighbor Rules in the Simulation of Pedestrian Flow by Cellular Automata -- Two-Phase Automaton for Porous Structure and Combustion Simulation -- Approximation of Continuous Media Models for Granular Systems Using Cellular Automata -- A Topological Framework for the Specification and the Simulation of Discrete Dynamical Systems -- A Basic Qualitative CA Based Model of a Frustrated Linear Josephson Junction Array (JJA) -- Cellular Automata Based Encompression Technology for Voice Data -- A MCA Motion-Planner for Mobile Robots with Generic Shapes and Kinematics on Variable Terrains -- Simulation of the Dynamics of Pulsed Pumped Lasers Based on Cellular Automata -- Surface Roughening in Homoepitaxial Growth: A Lattice Gas Cellular Automaton Model -- Ant Colony System for JSP -- Using de Bruijn Diagrams to Analyze 1d Cellular Automata Traffic Models -- Using Cellular Automata to Determine Bounds for Measuring the Efficiency of Broadcast Algorithms in Highly Mobile Ad Hoc Networks -- From Individual to Collective Behaviour in CA Like Models of Data Communication Networks -- Agent-Driven Resource Optimization in User Networks: A Game Theoretical Approach -- Lattice Boltzmann Modeling of Injection Moulding Process -- Cellular Automata Diffusion-Kinetic Model of Dendritic Growth -- Cellular Automata with Rare Events; Resolution of an Outstanding Problem in the Bootstrap Percolation Model -- Plastic Deformation Development in Polycrystals Based on the Cellular Automata and Relaxation Element Method -- Predicting Wildfire Spreading Through a Hexagonal Cellular Automata Model -- Modelling Wildfire Dynamics via Interacting Automata -- Sympatric Speciation Through Assortative Mating in a Long-Range Cellular Automaton -- A Cellular "Blocks" Model for Large Surface Flows and Applications to Lava Flows -- Cell-Oriented Modeling of In Vitro Capillary Development -- Neuropercolation: A Random Cellular Automata Approach to Spatio-temporal Neurodynamics -- The Use of Hybrid Cellular Automaton Models for Improving Cancer Therapy -- A Stochastic Model of the Effector T Cell Lifecycle -- A Cellular Automata Model of Population Infected by Periodic Plague -- Mining Ecological Data with Cellular Automata -- Reconstructing Forest Savanna Dynamics in Africa Using a Cellular Automata Model, FORSAT -- Learning What to Eat: Studying Inter-relations Between Learning, Grouping, and Environmental Conditions in an Artificial World -- Cellular Automata in Ecological and Ecohydraulics Modelling -- Chaos in a Simple Cellular Automaton Model of a Uniform Society -- Replication of Spatio-temporal Land Use Patterns at Three Levels of Aggregation by an Urban Cellular Automata -- Perturbation in Genetic Regulatory Networks: Simulation and Experiments -- A Hybrid Discrete-Continuum Model for 3-D Skeletogenesis of the Vertebrate Limb -- A Cellular Automata Model of Early T Cell Recognition -- Simulation of Cell Population Dynamics Using 3-D Cellular Automata -- Synchronization of Protein Motors Modeled by Asynchronous Cellular

Automata -- Hybrid Techniques for Pedestrian Simulations -- A CA Approach to Study Complex Dynamics in Asset Markets -- Modeling the Effect of Leadership on Crowd Flow Dynamics -- Cellular Automata Application to the Linearization of Stream Cipher Generators -- Agents in Housing Market. A Model for Siena Historical Centre -- On the Omni-directional Emergence of Form in Computation -- A Flexible Automata Model for Disease Simulation -- A Novel Artificial Life Ecosystem Environment Model -- Cellular Automata Evolution for Pattern Classification -- Simulation and Experimental Investigation of Two Dimensional Cracks Propagation in Ceramic Materials -- Cellular Automata in the Hyperbolic Plane: Proposal for a New Environment -- Algebraic Properties of Cellular Automata: The Basis for Composition Technique -- DSCA Implementation of 3D Self-Replicating Structures -- Calculation of the Critical Point for Two-Layer Ising and Potts Models Using Cellular Automata -- Directed Ligand Passage over the Surface of Diffusion-Controlled Enzymes: A Cellular Automata Model -- An Evolutionary Approach for Modelling Lava Flows Through Cellular Automata -- CAME&L – Cellular Automata Modeling Environment & Library -- SAT-Based Analysis of Cellular Automata -- The Kernel Hopfield Memory Network -- Timescale Separated Pollination-Colonisation Models -- Characterization of a Class of Complemented Group Cellular Automata -- Block Encryption Using Reversible Cellular Automata -- Cellular Model of Complex Porous Media Application to Permeability Determination -- Improved Cell-DEVS Model Definition in CD++ -- Characterization of Reachable/Nonreachable Cellular Automata States -- Building Classifier Cellular Automata -- On Evolutionary 3-Person Prisoner's Dilemma Games on 2-D Lattice -- Optimizing the Behavior of a Moving Creature in Software and in Hardware -- A Generalized Rapid Development Environment for Cellular Automata Based Simulations -- Characterizing Configuration Spaces of Simple Threshold Cellular Automata -- Lattice Boltzmann Approach to Incompressible Fluidynamics Dimensional Investigation and Poiseuille Test.
