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Nota di contenuto	The Unconventionality of Nature: Biology, from Noise to Functional Randomness -- Ultrametric Algorithms and Automata -- Realism and Texture: Benchmark Problems for Natural Computation -- Quantum Computing Meets the Real World -- BL: A Visual Computing Framework for Interactive Neural System. Models of Embodied Cognition and Face to Face Social Learning -- Computations with Grossone-based Infinities -- Exploring the Effect of Cell Heterogeneity in Wound Healing Using a 3D Multicellular Tissue Growth Model -- Regularized Linear and Nonlinear Autoregressive Models for Dengue Confirmed-Cases Prediction -- Asynchronous Spiking Neural P Systems with Structural Plasticity -- Expressive Power of Non-Deterministic Evolving Recurrent Neural Networks in Terms of their Attractor Dynamics -- Duplications and Pseudo-Duplications -- Going Beyond Turing with P Automata -- DiSCUS: A Simulation Platform for Conjugation Computing -- A Cost / Speed / Reliability Trade-Off to Erasing -- Replication of Arbitrary

Hole-free Shapes via Self-assembly with Signal-passing Tiles --  
Efficient Card-based Protocols for Generating a Hidden Random  
Permutation without Fixed Points -- Simulation of the 2JLP Gene  
Assembly Process in Ciliates -- A Uniform Family of Tissue P Systems  
with Protein on Cells Solving 3-Coloring in Linear Time --  
Asynchronous Dynamics of Boolean Automata Double-Cycles -- Non-  
cooperative Algorithms in Self-assembly -- Tangle Machines --  
Formalisation vs Understanding; A Case Study in Isabelle.

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Sommario/riassunto

This book constitutes the refereed proceedings of the 14th International Conference on Unconventional Computation and Natural Computation, UCNC 2015, held in Auckland, New Zealand, in August/September 2015. The 16 revised full papers were carefully reviewed and selected from 38 submissions. The papers cover a wide range of topics including among others molecular (DNA) computing; quantum computing; optical computing; chaos computing; physarum computing; computation in hyperbolic spaces; collision-based computing; cellular automata; neural computation; evolutionary computation; swarm intelligence; nature-inspired algorithms; artificial immune systems; artificial life; membrane computing; amorphous computing; computational systems biology; genetic networks; protein-protein networks; transport networks; synthetic biology; cellular (in vivo) computing; and computations beyond the Turing model and philosophical aspects of computing.

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