1.	Record Nr.	UNISA996466007903316
	Titolo	Unconventional Computation and Natural Computation [[electronic resource]] : 15th International Conference, UCNC 2016, Manchester, UK, July 11-15, 2016, Proceedings / / edited by Martyn Amos, Anne Condon
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
	ISBN	3-319-41312-0
	Edizione	[1st ed. 2016.]
	Descrizione fisica	1 online resource (XVIII, 197 p. 62 illus.)
	Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 9726
	Disciplina	006
	Soggetti	Computer science Machine theory Algorithms Artificial intelligence Computer networks Theory of Computation Computer Science Logic and Foundations of Programming Formal Languages and Automata Theory Artificial Intelligence Computer Communication Networks
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Includes index.
	Nota di contenuto	Reachability Problems for Continuous Chemical Reaction Networks -- An All-Optical Soliton FFT Computational Arrangement in the 3NLSE-domain -- Babbage meets Zuse: A Minimal Mechanical Computer -- Generative Power of Matrix Insertion-deletion Systems with Context-free Insertion or Deletion -- Evolving Carbon Nanotube Reservoir Computers -- Global Network Cooperation Catalysed by a Small Prosocial Migrant Clique -- Model-Based Computation -- In vitro Implementation of a Stack Data Structure Based on DNA Strand Displacement -- Analysis of Boolean Logic Gates Logical Complexity for use with Spiking Memristor Gates -- Language Recognition Power and Succintness of Affine Automata -- Training a Carbon-Nanotube /

Liquid Crystal Data Classifier Using Evolutionary Algorithms -- Towards Quantitative Verification of Reaction Systems -- Traversal Languages Capturing Isomorphism Classes on Sierpinski Gaskets -- Discrete DNA Reaction-Diffusion Model for Implementing Simple Cellular Automaton -- Universal Totalistic Asynchonous Cellular Automaton and its Possible Implementation by DNA.

Sommario/riassunto	This book constitutes the refereed proceedings of the 15th International Conference on Unconventional Computation and Natural Computation, UCNC 2016, held in Manchester, UK, in July 2016. The 15 revised full papers presented together with 5 invited papers were carefully reviewed and selected from 30 submissions. The papers cover a wide range of topics including molecular, cellular, quantum, optical and chaos computing; cellular automata; neural and evolutionary computation; artificial immune systems; Ant algorithms and swarm intelligence; amorphous computing; membrane computing; computational systems biology and computational neuroscience; and synthetic biology. .