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Descrizione fisica	1 online resource (IX, 337 p.)
Collana	Natural Computing Series, , 2627-6461
Disciplina	004.0151
Soggetti	Computer science Artificial intelligence Theory of Computation Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Encoding and Representation -- Formalisms -- Mathematical Aspects of Evolvability -- Autonomy, Programming and Programmability -- Non-Boolean Algebras -- Complexity Issues -- Amorphous Substrates -- Material Simulation/Systems-Scale Simulation/Multiscale Modelling -- Nanoscale Automata -- Electronic Chemical Interaction and Digital Computation -- Molecular and Device Self-assembly and Self-organization -- Interfacing and Architectures: Board and Chip Builders -- Evolution, Coevolution, Evolvable Hardware and Embedded in Materio Evolution -- Reservoir Computing -- Swarm Chemistry -- Molecular/DNA Computing -- Dynamical Stability and Intelligence -- Unconventional Computation and Life -- Unconventional Computing in Society -- Philosophy of Computation.
Sommario/riassunto	This book is concerned with computing in materio: that is, unconventional computing performed by directly harnessing the physical properties of materials. It offers an overview of the field, covering four main areas of interest: theory, practice, applications and implications. Each chapter synthesizes current understanding by deliberately bringing together researchers across a collection of related research projects. The book is useful for graduate students, researchers in the field, and the general scientific reader who is

interested in inherently interdisciplinary research at the intersections of computer science, biology, chemistry, physics, engineering and mathematics.
