1. Record Nr. UNINA9910830134703321

Titolo	Non-standard computation : molecular computation, cellular automata, evolutionary algorithms, quantum computers
Pubbl/distr/stampa	[Place of publication not identified], : Wiley VCH, 1998
ISBN	1-280-55942-X 9786610559428 3-527-60296-8
Descrizione fisica	1 online resource (235 pages)
Disciplina	511.3
Soggetti	Molecular computers Cellular automata Evolutionary programming (Computer science) Quantum computers Computers, Hybrid Computational Biology Computers Biology Computer Systems Computing Methodologies Biological Science Disciplines Natural Science Disciplines Information Science Disciplines and Occupations Computer Science Engineering & Applied Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Sommario/riassunto	In recent years, a discussion of fundamentally new computer concepts has been stirred up by new developments in various scientific areas. Even newspapers carry articles containing evocative terms like

Quantum Computers or Molecular Computers. The background is the need for better performing computers in applications which require an extremely high parallelism or a special behaviour such as the simulation of quantum systems. Examples include the design of a turbine with about 100 parts; a realistic simulation of say only 40 electrons in a solid; and the search for the shortest telephone line that connects 100 cities scattered over a country. These require calculations that are far beyond the power of conventional computers! This exciting book provides the first overview of, and introduction, to the chemical, biological and physical non-standard computation concepts which promise to solve these problems by a massive parallelism and a clever use of other effects: molecular and quantum computers, and genetic algorithms.; Written on a scientific level, it is an up-to-date information source for scientists and graduate students working in the field in physics, chemistry, computer and life sciences, as well as interested readers with a scientific background.