

1. Record Nr.	UNINA9910484973803321
Titolo	DNA Computing : 10th International Workshop on DNA Computing, DNA10, Milan, Italy, June 7-10, 2004, Revised Selected Papers / / edited by Claudio Ferretti, Giancarlo Mauri, Claudio Zandron
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2005
Edizione	[1st ed. 2005.]
Descrizione fisica	1 online resource (X, 472 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 3384
Altri autori (Persone)	FerrettiClaudio <1965-> MauriGian Carlo ZandronClaudio
Disciplina	621.391
Soggetti	Computer science Algorithms Artificial intelligence Bioinformatics Theory of Computation Artificial Intelligence Computational and Systems Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Computing by Observing Bio-systems: The Case of Sticker Systems -- DNA-Based Computation Times -- Computing Beyond the Turing Limit Using the H Systems -- Biomolecular Implementation of Computing Devices with Unbounded Memory -- Characterization of Non-crosshybridizing DNA Oligonucleotides Manufactured In Vitro -- Error Free Self-assembly Using Error Prone Tiles -- On the Computational Complexity of P Automata -- A Weighted Insertion-Deletion Stacked Pair Thermodynamic Metric for DNA Codes -- DNA Extraction by XPCR -- A Method of Error Suppression for Self-assembling DNA Tiles -- Using Automated Reasoning Systems on Molecular Computing -- Parallelism in Gene Assembly -- Splicing Systems for Universal Turing Machines -- Application of Mismatch Detection Methods in DNA Computing -- Bond-Free Languages: Formalizations, Maximality and

Construction Methods -- Preventing Undesirable Bonds Between DNA Codewords -- Testing Structure Freeness of Regular Sets of Biomolecular Sequences -- Minimum Basin Algorithm: An Effective Analysis Technique for DNA Energy Landscapes -- Efficient Initial Pool Generation for Weighted Graph Problems Using Parallel Overlap Assembly -- Partial Words for DNA Coding -- Accepting Hybrid Networks of Evolutionary Processors -- Building the Components for a Biomolecular Computer -- Methods for Manipulating DNA Molecules in a Micrometer Scale Using Optical Techniques -- From Cells to Computers: Membrane Computing – A Quick Overview -- The Capacity of DNA for Information Encoding -- Compact Error-Resilient Computational DNA Tiling Assemblies -- Toward “Wet” Implementation of Genetic Algorithm for Protein Engineering -- Programmable Control of Nucleation for Algorithmic Self-assembly -- DNA Hybridization Catalysts and Catalyst Circuits -- Complexity of Self-assembled Shapes.-Aqueous Computing with DNA Hairpin-Based RAM -- A Programmable Molecular Computer in Microreactors -- Combinatorial Aspects of Minimal DNA Expressions -- A Design for Cellular Evolutionary Computation by Using Bacteria -- An Inexpensive LED-Based Fluorometer Used to Study a Hairpin-Based DNA Nanomachine -- Designs of Autonomous Unidirectional Walking DNA Devices -- Design of an Autonomous DNA Nanomechanical Device Capable of Universal Computation and Universal Translational Motion -- A Clocked DNA-Based Replicator -- A Bayesian Algorithm for In Vitro Molecular Evolution of Pattern Classifiers.

---