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Titolo	Experimental Algorithmics [[electronic resource]] : From Algorithm Design to Robust and Efficient Software // edited by Rudolf Fleischer, Bernhard Moret, Erik Meineche Schmidt
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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2547
Disciplina	005.1
Soggetti	Computer science Data structures (Computer science) Algorithms Numerical analysis Computer science—Mathematics Computer Science, general Data Structures Algorithm Analysis and Problem Complexity Numeric Computing Discrete Mathematics in Computer Science
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 at the end of each chapters and index.
Nota di contenuto	Algorithm Engineering for Parallel Computation -- Visualization in Algorithm Engineering: Tools and Techniques -- Parameterized Complexity: The Main Ideas and Connections to Practical Computing -- A Comparison of Cache Aware and Cache Oblivious Static Search Trees Using Program Instrumentation -- Using Finite Experiments to Study Asymptotic Performance -- WWW.BDD-Portal.ORG: An Experimentation Platform for Binary Decision Diagram Algorithms -- Algorithms and Heuristics in VLSI Design -- Reconstructing Optimal Phylogenetic Trees: A Challenge in Experimental Algorithmics -- Presenting Data from Experiments in Algorithmics -- Distributed Algorithm Engineering -- Implementations and Experimental Studies of Dynamic Graph

Algorithms.

Sommario/riassunto

Experimental algorithmics, as its name indicates, combines algorithmic work and experimentation: algorithms are not just designed, but also implemented and tested on a variety of instances. Perhaps the most important lesson in this process is that designing an algorithm is but the first step in the process of developing robust and efficient software for applications. Based on a seminar held at Dagstuhl Castle, Germany in September 2000, this state-of-the-art survey presents a coherent survey of the work done in the area so far. The 11 carefully reviewed chapters provide complete coverage of all current topics in experimental algorithmics.