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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2122
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Soggetti	Algorithms Computer programming Computer science—Mathematics Computer graphics Combinatorial analysis Algorithm Analysis and Problem Complexity Programming Techniques Mathematics of Computing Discrete Mathematics in Computer Science Computer Graphics Combinatorics
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Lattice Paths and Determinants -- The Nearest Neighbor -- Explicit and Implicit Enforcing - Randomized Optimization -- Codes over \mathbb{Z}_4 -- Degree Bounds for Long Paths and Cycles in k -Connected Graphs -- Data Structures for Boolean Functions BDDs — Foundations and Applications -- Scheduling under Uncertainty: Bounding the Makespan Distribution -- Random Graphs, Random Triangle-Free Graphs, and Random Partial Orders -- Division-Free Algorithms for the Determinant and the Pfaffian: Algebraic and Combinatorial Approaches -- Check Character Systems and Anti-symmetric Mappings -- Algorithms in Pure Mathematics -- Coloring Hamming Graphs, Optimal Binary Codes, and the 0/1-Borsuk Problem in Low Dimensions.

This book is based on a graduate education program on computational discrete mathematics run for several years in Berlin, Germany as a joint effort of theoretical computer scientists and mathematicians in order to support doctoral students and advanced ongoing education in the field of discrete mathematics and algorithmics. The 12 selected lectures by leading researchers presented in this book provide recent research results and advanced topics in a coherent and consolidated way. Among the areas covered are combinatorics, graph theory, coding theory, discrete and computational geometry, optimization, and algorithmic aspects of algebra.
