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ISBN	3-11-069360-7
Descrizione fisica	1 online resource (X, 168 p.)
Collana	De Gruyter Textbook
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Soggetti	Computer algorithms
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Nota di contenuto	Frontmatter -- Preface -- Contents -- Chapter 1 Introduction -- Chapter 2 Sorting techniques -- Chapter 3 Algorithm design techniques -- Chapter 4 Advanced graph algorithm -- Chapter 5 Number theory, classification of problems, and random algorithms -- Chapter 6 Tree and heaps -- Chapter 7 Lab session -- Further reading -- Index
Sommario/riassunto	Algorithms play a central role both in the theory and in the practice of computing. The goal of the authors was to write a textbook that would not trivialize the subject but would still be readable by most students on their own. The book contains over 120 exercises. Some of them are drills; others make important points about the material covered in the text or introduce new algorithms not covered there. The book also provides programming projects. From the Table of Contents: Chapter 1: Basic knowledge of Mathematics, Relations, Recurrence relation and Solution techniques, Function and Growth of functions. Chapter 2: Different Sorting Techniques and their analysis. Chapter 3: Greedy approach, Dynamic Programming, Brach and Bound techniques, Backtracking and Problems, Amortized analysis, and Order Statics. Chapter 4: Graph algorithms, BFS, DFS, Spanning Tree, Flow Maximization Algorithms. Shortest Path Algorithms. Chapter 5: Binary search tree, Red black Tree, Binomial heap, B-Tree and Fibonacci Heap. Chapter 6: Approximation Algorithms, Sorting Networks, Matrix operations, Fast Fourier Transformation, Number theoretic Algorithm,

Computational geometry Randomized Algorithms, String matching, NP-Hard, NP-Completeness, Cooks theorem.