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Titolo	Encyclopedia of algorithms / / Ming-Yang Kao, editor
Pubbl/distr/stampa	New York : , : Springer, , [2016] ©2016
ISBN	1-4939-2864-3
Edizione	[2nd ed. 2016.]
Descrizione fisica	1 online resource (379 illus., 116 illus. in color. eReference.)
Collana	Springer reference
Disciplina	518.1
Soggetti	Algorithms
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	From the contents: Abelian Hidden Subgroup Problem -- Abstract Voronoi Diagrams -- Active Learning - Modern Learning Theory -- Backdoors to SAT -- Backtracking Based k-SAT Algorithms -- Bargaining Networks -- Cache-Oblivious B-Tree -- Canonical Orders and Schnyder Realizers -- Circuit Placement.-Data Migration -- Decoding Reed–Solomon Codes -- Direct Routing Algorithms -- Edit Distance Under Block Operations -- Engineering Geometric Algorithms -- Enumeration of Non-crossing Geometric Graphs -- Facility Location -- Flow Time Minimization -- Force-Directed Graph Drawing -- Gate Sizing -- General Equilibrium -- Geographic Routing -- Hamilton Cycles in Random Intersection Graphs -- Hardness of Proper Learning -- Huffman Coding -- Implementation Challenge for Shortest Paths -- Incentive Compatible Selection -- Inductive Inference -- Kernelization, Bidimensionality and Kernels -- Kinetic Data Structures -- Knowledge in Distributed Systems -- Large-Treewidth Graph Decompositions -- Layout Decomposition for Multiple Patterning -- Learning Automata -- Majority Equilibrium -- Manifold Reconstruction -- Market Games and Content Distribution -- Nash Equilibria and Dominant Strategies in Routing -- Nearest Neighbor Interchange and Related Distances -- Negative Cycles in Weighted Digraphs -- Oblivious Routing -- Online Interval Coloring -- Online Paging and Caching -- PAC Learning -- Parity Games -- Permutation Enumeration -- Quadtrees and Morton Indexing -- Quantum Algorithm for Factoring -- Quantum Dense Coding -- Radiocoloring in Planar Graphs -- Random Planted 3-SAT --

Randomization in Distributed Computing -- Schedulers for Optimistic Rate Based Flow Control -- Secretary Problems and Online Auctions -- Separators in Graphs -- Table Compression -- Text Indexing -- Triangulation Data Structures -- Unified View of Graph Searching and LDFS-Based Certifying Algorithms -- Universal Sequencing on an Unreliable Machine -- Upward Graph Drawing -- Vector Bin Packing -- Vector Scheduling Problems -- Voltage Scheduling -- Wavelet Trees -- Well Separated Pair Decomposition -- Wire Sizing. .

Sommario/riassunto

This dynamic reference work provides solutions to vital algorithmic problems for scholars, researchers, practitioners, teachers and students in fields such as computer science, mathematics, statistics, biology, economics, financial software, and medical informatics. This second edition is broadly expanded, building upon the success of its former edition with more than 450 new and updated entries. These entries are designed to ensure algorithms are presented from growing areas of research such as bioinformatics, combinatorial group testing, differential privacy, enumeration algorithms, game theory, massive data algorithms, modern learning theory, social networks, and VLSI CAD algorithms. Over 630 entries are organized alphabetically by problem, with subentries allowing for distinct solutions. Each entry includes a description of the basic algorithmic problem; the input and output specifications; key results; examples of applications; citations to key literature, open problems, experimental results, links to data sets and downloadable code. All entries are peer-reviewed, written by leading experts in the field—and each entry contains links to a summary of the author’s research work. This defining reference is available in both print and online—a dynamic living work with hyperlinks to related entries, cross references citations, and a myriad other valuable URLs. New and Updated entries include: Algorithmic Aspects of Distributed Sensor Networks, Algorithms for Modern Computers Bioinformatics Certified Reconstruction and Mesh Generation Combinatorial Group Testing Compression of Text and Data Structures Computational Counting Computational Economics Computational Geometry Differential Privacy Enumeration Algorithms Exact Exponential Algorithms Game Theory Graph Drawing Group Testing Internet Algorithms Kernels and Compressions Massive Data Algorithms Mathematical Optimization Modern Learning Theory Social Networks Stable Marriage Problems, k-SAT Algorithms Sublinear Algorithms Tile Self-Assembly VLSI CAD Algorithms.