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Soggetti	Numerical analysis Mathematical models Algorithms Computer communication systems Data structures (Computer science) Computer science—Mathematics Numerical Analysis Mathematical Modeling and Industrial Mathematics Algorithm Analysis and Problem Complexity Computer Communication Networks Data Structures Discrete Mathematics in Computer Science
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Invited Contributions -- Design and Analysis of Dynamic Multithreaded Algorithms -- Cache-Oblivious Algorithms and Data Structures -- Refereed Contributions -- Getting the Best Response for Your Erg -- Auctions with Budget Constraints -- Tight Approximability Results for Test Set Problems in Bioinformatics -- Robust Subgraphs for Trees and Paths -- Collective Tree Spanners of Graphs -- Optimally Competitive List Batching -- The Relative Worst Order Ratio Applied to Seat Reservation -- Online Maintenance of k-Medians and k-Covers on a

Line -- Matching Polyhedral Terrains Using Overlays of Envelopes -- Independent Set of Intersection Graphs of Convex Objects in 2D -- Maximizing the Area of Overlap of Two Unions of Disks Under Rigid Motion -- Construction of the Nearest Neighbor Embracing Graph of a Point Set -- Connectivity of Graphs Under Edge Flips -- Improvement of Nemhauser-Trotter Theorem and Its Applications in Parametrized Complexity -- A Simple Linear-Time Modular Decomposition Algorithm for Graphs, Using Order Extension -- Railway Delay Management: Exploring Its Algorithmic Complexity -- Layered Heaps -- Melding Priority Queues -- An Algorithm for Cyclic Edge Connectivity of Cubic Graphs -- Subexponential-Time Framework for Optimal Embeddings of Graphs in Integer Lattices -- New Algorithms for Enumerating All Maximal Cliques -- The Multi-multiway Cut Problem -- The Bottleneck Problem with Minimum Quantity Commitments -- All-Norm Approximation for Scheduling on Identical Machines -- Approximation Algorithms for the General Max-min Resource Sharing Problem: Faster and Simpler -- Approximation Schemes for the Crane Scheduling Problem -- Improved Approximation Algorithms for the Single-Sink Buy-at-Bulk Network Design Problems -- A  $(1-\epsilon)$ -Approximation Algorithm for the Stable Marriage Problem -- Maximizing the Number of Packed Rectangles -- Two Space Saving Tricks for Linear Time LCP Array Computation -- Fully-Dynamic All-Pairs Shortest Paths: Faster and Allowing Negative Cycles -- Faster Deterministic Gossiping in Directed Ad Hoc Radio Networks -- Online Scheduling of Splittable Tasks in Peer-to-Peer Networks -- The Optimal Online Algorithms for Minimizing Maximum Lateness -- Power Assignment in Radio Networks with Two Power Levels -- Pointed Binary Encompassing Trees -- On Geometric Structure of Global Roundings for Graphs and Range Spaces -- External Connected Components -- Cache-Oblivious Data Structures and Algorithms for Undirected Breadth-First Search and Shortest Paths -- Simplified External Memory Algorithms for Planar DAGs.

## Sommario/riassunto

This volume contains the papers presented at SWAT 2004, the 9th Scandinavian Workshop on Algorithm Theory, which was held on July 8–10, 2004, at the Louisiana Museum of Modern Art in Humlebæk on the Øresund coast north of Copenhagen. The SWAT workshop, in reality a full-?edged conference, has been held biennially since 1988 and rotates among the ?ve Nordic countries, D- mark, Finland, Iceland, Norway, and Sweden. The previous meetings took place ? in Halmstad (1988), Bergen (1990), Helsinki (1992), Arhus (1994), Reykjavik (1996), Stockholm (1998), Bergen (2000), and Turku (2002). SWAT alternates with the Workshop on Algorithms and Data Structures (WADS), held in o- numbered years.

The call for papers invited contributions on all aspects of algorithm theory. A total of 121 submissions was received—an overall SWAT high.

These underwent thorough reviewing, and the program committee met in Copenhagen on March 20–21, 2004, and selected 40 papers for presentation at the conference. The program committee was impressed with the quality of the submissions and, given the constraints imposed by the choice of conference venue and duration, had to make some tough decisions. The scienti?c program was enriched by invited presentations by Gerth Stølting Brodal (University of Aarhus) and Charles E. Leiserson (Massachusetts Institute of Technology).

Two satellite events were held immediately before SWAT 2004: the Workshop on On-Line Algorithms (OLA 2004), organized by members of the Department of Mathematics and Computer Science at the University of Southern Denmark, and the Summer School on Experimental

Algorithmics, organized by the Performance Engineering Laboratory in the Department of Computing at the University of Copenhagen. More information about SWAT 2004 and its satellite events is available at the conference web site <http://swat.diku.dk/>.

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