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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1004
Disciplina	004.0151
Soggetti	Computers Algorithms Combinatorics Probabilities Statistics Theory of Computation Algorithm Analysis and Problem Complexity Computation by Abstract Devices Probability Theory and Stochastic Processes Statistics, general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Algorithmic problems arising from Genome informatics -- An approximation algorithm for alphabet indexing problem -- A fast and space-economical algorithm for length-limited coding -- Computing in linear time a chord from which a simple polygon is weakly internally visible -- Competitive searching in polygons—Beyond generalised streets -- Finding a shortest pair of paths on the plane with obstacles and crossing areas -- Logspace verifiers, NC, and NP -- Structure in average case complexity -- Some geometric lower bounds -- The I/O-complexity of Ordered Binary-Decision Diagram manipulation -- Two arc disjoint paths in Eulerian digraphs -- Finding dense subgraphs -- Finding smallest supertrees -- Weighted domination on

cocomparability graphs -- The parallel complexity of approximating the High Degree Subgraph problem -- Constant ratio approximations of the weighted feedback vertex set problem for undirected graphs -- Greedy approximations of independent sets in low degree graphs -- Practical logic -- An approximation algorithm for MAX 3-SAT -- Learning of restricted RNLC graph languages -- Optimal information delivery -- On the complexity of testing for catastrophic faults -- Scheduling parallel tasks with individual deadlines -- Orders of Gauss periods in finite fields -- A hard problem that is almost always easy -- Computing the Tutte polynomial of a graph of moderate size -- More efficient parallel flow algorithms -- Linear-time in-place selection in less than  $3n$  comparisons -- Heap construction: Optimal in both worst and average cases? -- Fast approximate dictionary matching -- Undirected vertex-connectivity structure and smallest four-vertex-connectivity augmentation (extended abstract) -- Searching for a monotone function by independent threshold queries -- A fast and simple algorithm for identifying 2-monotonic positive Boolean functions -- Deciding bisimulation and trace equivalences for systems with many identical processes -- Should Amdahl's Law be repealed? -- Embeddings of hyper-rings in hypercubes -- A fast algorithm for computing optimal rectilinear Steiner trees for extremal point sets -- Algorithms for finding  $f$ -colorings of partial  $k$ -trees -- Spanning closed trail and hamiltonian cycle in grid graphs -- A linear time algorithm for finding maximal planar subgraphs -- Illumination with orthogonal floodlights -- No quadrangulation is extremely odd -- Finding the medial axis of a simple polygon in linear time -- The first subquadratic algorithm for complete linkage clustering -- Matching nuts and bolts faster -- Linear matching-time algorithm for the directed graph isomorphism problem -- A resource assignment problem on graphs -- NC algorithms for partitioning sparse graphs into induced forests with an application.

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### Sommario/riassunto

This book presents the refereed proceedings of the 6th International Symposium on Algorithms and Computation, ISAAC '95, held in Cairns, Australia, in December 1995. The 45 revised full papers presented together with the abstracts of three invited talks were selected from a total of 130 submissions. The papers address many current aspects of research and advanced applications of algorithms and computations; among the topics covered are graph theory and graph algorithms, computational geometry, computational logics, searching and sorting, approximation and optimization, algebraic manipulation, and coding.

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