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Titolo	Approximation, Randomization, and Combinatorial Optimization. Algorithms and Techniques : 9th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems, APPROX 2006 and 10th International Workshop on Randomization and Computation, RANDOM 2006, Barcelona, Spain, August 28-30, 2006, Proceedings / / edited by Josep Diaz, Klaus Jansen, José D.P. Rolim, Uri Zwick
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Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4110
Altri autori (Persone)	DiazJ <1950-> (Josep)
Disciplina	005.1
Soggetti	Software engineering Algorithms Computer science - Mathematics Discrete mathematics Numerical analysis Software Engineering Discrete Mathematics in Computer Science Numerical Analysis
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Talks -- On Nontrivial Approximation of CSPs -- Analysis of Algorithms on the Cores of Random Graphs -- Contributed Talks of APPROX -- Constant-Factor Approximation for Minimum-Weight (Connected) Dominating Sets in Unit Disk Graphs -- Approximating Precedence-Constrained Single Machine Scheduling by Coloring -- Minimizing Setup and Beam-On Times in Radiation Therapy -- On the Value of Preemption in Scheduling -- An Improved Analysis for a Greedy Remote-Clique Algorithm Using Factor-Revealing LPs -- Tight Results on Minimum Entropy Set Cover -- A Tight Lower Bound for the Steiner Point Removal Problem on Trees -- Single-Source Stochastic

Routing -- An  $O(\log n)$  Approximation Ratio for the Asymmetric Traveling Salesman Path Problem -- Online Algorithms to Minimize Resource Reallocations and Network Communication -- Weighted Sum Coloring in Batch Scheduling of Conflicting Jobs -- Combinatorial Algorithms for Data Migration to Minimize Average Completion Time -- LP Rounding and an Almost Harmonic Algorithm for Scheduling with Resource Dependent Processing Times -- Approximating Buy-at-Bulk and Shallow-Light  $k$ -Steiner Trees -- Improved Algorithms for Data Migration -- Approximation Algorithms for Graph Homomorphism Problems -- Improved Approximation Algorithm for the One-Warehouse Multi-Retailer Problem -- Hardness of Preemptive Finite Capacity Dial-a-Ride -- Minimum Vehicle Routing with a Common Deadline -- Stochastic Combinatorial Optimization with Controllable Risk Aversion Level -- Approximating Minimum Power Covers of Intersecting Families and Directed Connectivity Problems -- Better Approximations for the Minimum Common Integer Partition Problem -- Contributed Talks of RANDOM -- On Pseudorandom Generators with Linear Stretch in NC0 -- A Fast Random Sampling Algorithm for Sparsifying Matrices -- The Effect of Boundary Conditions on Mixing Rates of Markov Chains -- Adaptive Sampling and Fast Low-Rank Matrix Approximation -- Robust Local Testability of Tensor Products of LDPC Codes -- Subspace Sampling and Relative-Error Matrix Approximation: Column-Based Methods -- Dobrushin Conditions and Systematic Scan -- Complete Convergence of Message Passing Algorithms for Some Satisfiability Problems -- Robust Mixing -- Approximating Average Parameters of Graphs -- Local Decoding and Testing for Homomorphisms -- Worst-Case Vs. Algorithmic Average-Case Complexity in the Polynomial-Time Hierarchy -- Randomness-Efficient Sampling Within NC 1 -- Monotone Circuits for the Majority Function -- Space Complexity vs. Query Complexity -- Consistency of Local Density Matrices Is QMA-Complete -- On Bounded Distance Decoding for General Lattices -- Threshold Functions for Asymmetric Ramsey Properties Involving Cliques -- Distance Approximation in Bounded-Degree and General Sparse Graphs -- Fractional Matching Via Balls-and-Bins -- A Randomized Solver for Linear Systems with Exponential Convergence -- Maintaining External Memory Efficient Hash Tables.

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#### Sommario/riassunto

This is the joint refereed proceedings of the 9th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems, APPROX 2006 and the 10th International Workshop on Randomization and Computation, RANDOM 2006. The book presents 44 carefully reviewed and revised full papers. Among the topics covered are design and analysis of approximation algorithms, hardness of approximation problems, small spaces and data streaming algorithms, embeddings and metric space methods, and more.

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