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Soggetti	Algorithms Computer science Computer networks Information storage and retrieval systems Application software Computer science—Mathematics Discrete mathematics Theory of Computation Computer Communication Networks Information Storage and Retrieval Computer and Information Systems Applications Discrete Mathematics in Computer Science
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Note generali	Includes index.
Nota di contenuto	Statistical Randomized Encodings: A Complexity Theoretic View -- Tighter Fourier Transform Lower Bounds -- Quantifying Competitiveness in Paging with Locality of Reference -- Approximation Algorithms for Computing Maximin Share Allocations -- Envy-Free Pricing in Large Markets: Approximating Revenue and Welfare -- Batched Point Location in SINR Diagrams via Algebraic Tools -- On the Randomized Competitive Ratio of Reordering Buffer Management with Non-uniform Costs -- Serving in the Dark Should Be Done Non-

uniformly -- Finding the Median (Obliviously) with Bounded Space -- Approximation Algorithms for Min-Sum k-Clustering -- Solving Linear Programming with Constraints Unknown -- Deterministic Randomness Extraction from Generalized and Distributed Santha-Vazirani Sources -- Limitations of Algebraic Approaches to Graph Isomorphism Testing -- Fully Dynamic Matching in Bipartite Graphs -- Feasible Interpolation for QBF Resolution Calculi -- Simultaneous Approximation of Constraint Satisfaction Problems -- Design of Dynamic Algorithms via Primal-Dual Method -- What Percentage of Programs Halt? -- The Parity of Set Systems Under Random Restrictions with Applications to Exponential Time Problems -- Spotting Trees with Few Leaves -- Constraint Satisfaction Problems over the Integers with Successor -- Hardness Amplification and the Approximate Degree of Constant-Depth Circuits -- Algorithms and Complexity for Turaev-Viro Invariants -- Big Data on the Rise? – Testing Monotonicity of Distributions -- Unit Interval Editing Is Fixed-Parameter Tractable -- Streaming Algorithms for Submodular Function Maximization -- Multilinear Pseudorandom Functions -- Zero-Fixing Extractors for Sub-Logarithmic Entropy -- Interactive Proofs with Approximately Commuting Provers -- Popular Matchings with Two-Sided Preferences and One-Sided Ties -- Block Interpolation: A Framework for Tight Exponential-Time Counting Complexity -- On Convergence and Threshold Properties of Discrete Lotka-Volterra Population Protocols -- Scheduling Bidirectional Traffic on a Path -- On the Problem of Approximating the Eigenvalues of Undirected Graphs in Probabilistic Logspace -- On Planar Boolean CSP -- On Temporal Graph Exploration -- Mind Your Coins: Fully Leakage-Resilient Signatures with Graceful Degradation -- A (1+e)-Embedding of Low Highway Dimension Graphs into Bounded Treewidth Graphs -- Lower Bounds for the Graph Homomorphism Problem -- Parameterized Single-Exponential Time Polynomial Space Algorithm for Steiner Tree -- Relative Discrepancy Does not Separate Information and Communication Complexity -- A Galois Connection for Valued Constraint Languages of Infinite Size -- Approximately Counting H Colourings Is #BIS-Hard -- Taylor Polynomial Estimator for Estimating Frequency Moments -- ETR-Completeness for Decision Versions of Multi-player (Symmetric) Nash Equilibria -- Separate, Measure and Conquer: Faster Polynomial-Space Algorithms for Max 2-CSP and Counting Dominating Sets -- Submatrix Maximum Queries in Monge Matrices Are Equivalent to Predecessor Search -- Optimal Encodings for Range Top-k, Selection, and Min-Max -- 2-Vertex Connectivity in Directed Graphs -- Ground State Connectivity of Local Hamiltonians -- Uniform Kernelization Complexity of Hitting Forbidden Minors -- Counting Homomorphisms to Square-Free Graphs, Modulo 2 -- Approximately Counting Locally-Optimal Structures -- Proofs of Proximity for Context-Free Languages and Read-Once Branching Programs (Extended Abstract) -- Fast Algorithms for Diameter-Optimally Augmenting Paths -- Hollow Heaps -- Linear-Time List Recovery of High-Rate Expander Codes -- Finding 2-Edge and 2-Vertex Strongly Connected Components in Quadratic Time -- Improved Algorithms for Decremental Single-Source Reachability on Directed Graphs -- Weighted Reordering Buffer Improved via Variants of Knapsack Covering Inequalities -- Local Reductions -- Query Complexity in Expectation -- Near-Linear Query Complexity for Graph Inference -- A QPTAS for the Base of the Number of Crossing-Free Structures on a Planar Point Set -- Finding a Path in Group-Labeled Graphs with Two Labels Forbidden -- Lower Bounds for Sums of Powers of Low Degree Univariates -- Approximating CSPs Using LP Relaxation -- Comparator Circuits over Finite Bounded Posets -- Algebraic

Properties of Valued Constraint Satisfaction Problem -- Towards Understanding the Smoothed Approximation Ratio of the 2-Opt Heuristic -- On the Hardest Problem Formulations for the 0/1 Lasserre Hierarchy -- Replacing Mark Bits with Randomness in Fibonacci Heaps -- A PTAS for the Weighted Unit Disk Cover Problem -- Approximating the Expected Values for Combinatorial Optimization Problems Over Stochastic Points -- Deterministic Truncation of Linear Matroids -- Linear Time Parameterized Algorithms for Subset Feedback Vertex Set -- An Optimal Algorithm for Minimum-Link Rectilinear Paths in Triangulated Rectilinear Domains -- Amplification of One-Way Information Complexity via Codes and Noise Sensitivity -- A (2+e)-Approximation Algorithm for the Storage Allocation Problem -- Shortest Reconfiguration Paths in the Solution Space of Boolean Formulas -- Computing the Fréchet Distance Between Polygons with Holes -- An Improved Private Mechanism for Small Databases -- Binary Pattern Tile Set Synthesis Is NP-Hard -- Near-Optimal Upper Bound on Fourier Dimension of Boolean Functions in Terms of Fourier Sparsity -- Condensed Unpredictability -- Sherali-Adams Relaxations for Valued CSPs -- Two-Sided Online Bipartite Matching and Vertex Cover: Beating the Greedy Algorithm -- The Simultaneous Communication of Disjointness with Applications to Data Streams -- An Improved Combinatorial Algorithm for Boolean Matrix Multiplication.

Sommario/riassunto

The two-volume set LNCS 9134 and LNCS 9135 constitutes the refereed proceedings of the 42nd International Colloquium on Automata, Languages and Programming, ICALP 2015, held in Kyoto, Japan, in July 2015. The 143 revised full papers presented were carefully reviewed and selected from 507 submissions. The papers are organized in the following three tracks: algorithms, complexity, and games; logic, semantics, automata, and theory of programming; and foundations of networked computation: models, algorithms, and information management.