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Nota di contenuto	Invited Talk Paper -- Market Approach to Social Ads: The MyLikes Example and Related Problems -- Session 1A: Computational Geometry I -- Geodesic-Preserving Polygon Simplification -- Space-Efficient and Data-Sensitive Polygon Reconstruction Algorithms from Visibility Angle Information -- On the Edge Crossing Properties of Euclidean Minimum Weight Laman Graphs -- Structure and Computation of Straight Skeletons in 3-Space -- Session 1B: Pattern Matching -- Pattern Matching with Non Overlapping Reversals – Approximation and On-line Algorithms -- Single and Multiple Consecutive Permutation Motif Search -- Beating O(nm) in Approximate LZW-Compressed Pattern Matching -- Less Space: Indexing for Queries with Wildcards -- Session 2A: Computational Complexity I -- On Determining Deep Holes of

Generalized Reed-Solomon Codes -- Isomorphism on Subgraph-Closed Graph Classes: A Complexity Dichotomy and Intermediate Graph Classes -- Determinantal Complexities and Field Extensions -- Session 2B: Internet and Social Network Algorithms I -- Algorithms to Measure Diversity and Clustering in Social Networks through Dot Product Graphs -- Sublinear-Time Algorithms for Monomer-Dimer Systems on Bounded Degree Graphs -- The Complexity of Finding a Large Subgraph under Anonymity Constraints -- Session 3A: Graph Theory and Algorithms I -- On the Number of Edges of Fan-Crossing Free Graphs -- Cops and Robbers on Intersection Graphs -- SEFE with No Mapping via Large Induced Outerplane Graphs in Plane Graph -- Hardness and Algorithms for Variants of Line Graphs of Directed Graphs -- Session 3B: Scheduling Algorithms -- Performance Guarantees for Scheduling Algorithms under Perturbed Machine Speeds -- Better Bounds for Online k-Frame Throughput Maximization in Network Switches -- The Solvable Cases of a Scheduling Algorithm -- Session 4A: Computational Complexity II -- Exact Sublinear Binomial Sampling -- Trivial, Tractable, Hard. A Not So Sudden Complexity Jump in Neighborhood Restricted CNF Formulas -- Dynamic Point Labeling is Strongly PSPACE-Complete -- Unsatisfiable CNF Formulas Contain Many Conflicts -- Session 4B: Computational Geometry II -- Pursuit Evasion on Polyhedral Surfaces -- Algorithms for Tolerated Tverberg Partitions -- Abstract Voronoi Diagrams with Disconnected Regions -- Terrain Visibility with Multiple Viewpoints -- Session 5A: Graph Theory and Algorithms II -- Exact Algorithms for Maximum Independent Set -- On the Enumeration and Counting of Minimal Dominating sets in Interval and Permutation Graphs -- Testing Mutual Duality of Planar Graph -- Session 5B: Fixed-Parameter Tractable Algorithms -- Effective and Efficient Data Reduction for the Subset Interconnection Design Problem -- Myhill-Nerode Methods for Hypergraphs -- Augmenting Graphs to Minimize the Diameter -- Session 6A: Algorithms and Data Structures I -- Top-k Document Retrieval in Compact Space and Near-Optimal Time -- Faster, Space-Efficient Selection Algorithms in Read-Only Memory for Integers -- Trajectory-Based Dynamic Map Labeling -- Session 6B: Internet and Social Network -- Algorithms II -- Asynchronous Rumor Spreading on Random Graphs -- Unit Cost Buyback Problem -- Faster Rumor Spreading with Multiple Calls -- Session 7A: Algorithmic Game Theory -- Approximating the Value of a Concurrent Reachability Game in the Polynomial Time Hierarchy -- Computing a Walrasian Equilibrium in Iterative Auctions with Multiple Differentiated Items -- New Results on the Online Pricing Problem -- Session 7B: Algorithms and Data Structures II -- RAM-Efficient External Memory Sorting -- Succinct Data Structures for Representing Equivalence Classes -- Sliding Bloom Filters -- Session 8A: Graph Theory and Algorithms III -- Vertex-Weighted Matching in Two-Directional Orthogonal Ray Graphs -- Bounded Representations of Interval and Proper Interval Graphs -- Detecting and Counting Small Pattern Graphs -- An O(1.1939n) Time Algorithm for Minimum Weighted Dominating Induced Matching -- Session 8B: Approximation Algorithms I -- New Inapproximability Bounds for TSP -- Smoothed Analysis of the 2-Opt Heuristic for the TSP: Polynomial Bounds for Gaussian Noise -- Tight Approximation Bounds for Connectivity with a Color-Spanning Set -- The Train Delivery Problem Revisited -- Session 9A: Computational Geometry III -- The Distance 4-Sector of Two Points Is Unique -- The Number of Different Unfoldings of Polyhedra -- Computing the Smallest Color-Spanning Axis-Parallel Square -- Session 9B: Approximation Algorithms II -- Euclidean Traveling Salesman Tours through Stochastic Neighborhoods

-- Detecting and Characterizing Small Dense Bipartite-Like Subgraphs by the Bipartiteness Ratio Measure -- Approximate Cech Complex in Low and High Dimensions -- Session 10A: Computational Complexity III -- Model Counting for Formulas of Bounded Clique- Width -- Computing Plurality Points and Condorcet Points in Euclidean Space -- Computing Minimum Tile Sets to Self-assemble Color Patterns -- Session 10B: Network Algorithms -- A Probabilistic Analysis of Kademlia Networks -- Approximating the Generalized Minimum Manhattan Network Problem -- Minmax Regret 1-Facility Location on Uncertain Path Networks.

Sommario/riassunto

This book constitutes the refereed proceedings of the 24th International Symposium on Algorithms and Computation, ISAAC 2013, held in Hong Kong, China in December 2013. The 67 revised full papers presented together with 2 invited talks were carefully reviewed and selected from 177 submissions for inclusion in the book. The focus of the volume in on the following topics: computation geometry, pattern matching, computational complexity, internet and social network algorithms, graph theory and algorithms, scheduling algorithms, fixed-parameter tractable algorithms, algorithms and data structures, algorithmic game theory, approximation algorithms and network algorithms.