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Altri autori (Persone)	CalamoneriTiziana DiazJosep
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Nota di contenuto	Invited Talks -- Towards a Distributed Search Engine -- Mechanisms for the Marriage and the Assignment Game -- Resilient Algorithms and Data Structures -- Session 1. Graph Algorithms I -- An Exact Algorithm for Connected Red-Blue Dominating Set -- Maximizing PageRank with New Backlinks -- Enumerating Rooted Graphs with Reflectional Block Structures -- Improved Approximations for TSP with Simple Precedence

Constraints -- Polynomial Space Algorithms for Counting Dominating Sets and the Domatic Number -- Session 2. Computational Complexity -- Parameterized Complexity of Even/Odd Subgraph Problems -- Popular Matchings in the Marriage and Roommates Problems -- Bounding the Number of Tolerable Faults in Majority-Based Systems -- A Parameterized Algorithm for Chordal Sandwich -- Testing Computability by Width-2 OBDDs Where the Variable Order is Unknown -- Session 3. Graph Coloring -- Graph Unique-Maximum and Conflict-Free Colorings -- Strategic Coloring of a Graph -- Session 4. Tree Algorithms and Tree Decompositions -- Multicut Algorithms via Tree Decompositions -- The Steiner Tree Reoptimization Problem with Sharpened Triangle Inequality -- Kernelization for Maximum Leaf Spanning Tree with Positive Vertex Weights -- A Planar Linear Arboricity Conjecture -- Session 5. Computational Geometry -- On the Number of Higher Order Delaunay Triangulations -- How Simple Robots Benefit from Looking Back -- Session 6. Game Theory -- On Strategy Improvement Algorithms for Simple Stochastic Games -- Online Cooperative Cost Sharing -- Session 7. Graph Algorithms II -- On the Power of Nodes of Degree Four in the Local Max-Cut Problem -- Packing Bipartite Graphs with Covers of Complete Bipartite Graphs -- Irredundant Set Faster Than $O(2^n)$ -- The Complexity of Computing Minimal Unidirectional Covering Sets -- A ParameterizedRoute to Exact Puzzles: Breaking the 2^n -Barrier for Irredundance -- Session 8. String Algorithms -- Finding the Maximum Suffix with Fewer Comparisons -- An Algorithmic Framework for Motif Discovery Problems in Weighted Sequences -- Session 9. Network Algorithms -- Capacitated Confluent Flows: Complexity and Algorithms -- Preprocessing Speed-Up Techniques Is Hard -- Communication Requirements for Stable Marriages.

Sommario/riassunto

This volume contains the papers presented at the 7th International Conference on Algorithms and Complexity (CIAC-2010), which took place at Sapienza, University of Rome, during May 26-28, 2010. The volume contains 30 accepted papers, selected by the Program Committee from 114 submissions received, with an acceptance ratio of 26%. We thank all the authors who submitted papers, the members of the Program Committee and the external reviewers. We are grateful also to the five invited speakers, Ricardo Baeza-Yates (Yahoo! Research), Eran Halperin (Tel Aviv University), Monika Henzinger (EPFL Lausanne), Giuseppe F. Italiano (University of Rome Tor Vergata), and Bruce Reed (McGill University), that kindly accepted our invitation to give plenary lectures at the conference. We gratefully acknowledge support from Sapienza, its Department of Computer Science, Yahoo! Research and EATCS. We finally would like to thank Saverio Caminiti, Umberto Fazio, Petrucci, Emanuele G. Fusco and M. Daniela Salvati for their help in the organization tasks. March 2010 Tiziana Calamoneri, Josep Díaz Conference Organization Steering Committee Giorgio Ausiello, Sapienza University of Rome, Italy Giuseppe F.
