1. Record Nr. UNINA9910143898803321

Titolo	Randomization and Approximation Techniques in Computer Science : 6th International Workshop, RANDOM 2002, Cambridge, MA, USA, September 13-15, 2002, Proceedings / / edited by Jose D.P. Rolim, Salil Vadhan
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2002
ISBN	3-540-45726-7
Edizione	[1st ed. 2002.]
Descrizione fisica	1 online resource (VIII, 284 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2483
Disciplina	004/.07/27
Soggetti	Computer programming Computer science—Mathematics Algorithms Numerical analysis Programming Techniques Mathematics of Computing Algorithm Analysis and Problem Complexity Numeric Computing Discrete Mathematics in Computer Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Counting Distinct Elements in a Data Stream -- On Testing Convexity and Submodularity -- ?-Regular Languages Are Testable with a Constant Number of Queries -- Optimal Lower Bounds for 2-Query Locally Decodable Linear Codes -- Counting and Sampling H-Colourings -- Rapidly Mixing Markov Chains for Dismantleable Constraint Graphs -- On the 2-Colorability of Random Hypergraphs -- Percolation on Finite Cayley Graphs -- Computing Graph Properties by Randomized Subcube Partitions -- Bisection of Random Cubic Graphs -- Small k-Dominating Sets of Regular Graphs -- Finding Sparse Induced Subgraphs of Semirandom Graphs -- Mixing in Time and Space for Lattice Spin Systems: A Combinatorial View -- Quantum Walks on the Hypercube -- Randomness-Optimal Characterization of

Two NP Proof Systems -- A Probabilistic-Time Hierarchy Theorem for “Slightly Non-uniform” Algorithms -- Derandomization That Is Rarely Wrong from Short Advice That Is Typically Good -- Is Constraint Satisfaction Over Two Variables Always Easy? -- Dimensionality Reductions That Preserve Volumes and Distance to Affine Spaces, and Their Algorithmic Applications -- On the Eigenvalue Power Law -- Classifying Special Interest Groups in Web Graphs.

Sommario/riassunto

This volume contains the papers presented at the 6th International Workshop on Randomization and Approximation Techniques in Computer Science (RAN- DOM 2002), which took place at Harvard University, Cambridge, Massachusetts, from September 13-15, 2002. RANDOM 2002 was concerned with applications of randomness to computational and combinatorial problems, and was the sixth workshop in the series following Bologna, Barcelona, Berkeley, Geneva, and B- keley again. The volume contains 21 contributed papers, selected by the program c- mittee from 48 submissions received in response to the call for papers. We thank all of the authors who submitted papers, our invited speakers, the members of the program committee: Dimitris Achlioptas, Microsoft Research Martin Dyer, U. of Leeds Uriel Feige, Weizmann Institute Russell Impagliazzo, UC San Diego Sampath Kannan, U. of Pennsylvania David Karger, MIT Nati Linial, Hebrew U. Rafail Ostrovsky, Telcordia Technologies Paul Spirakis, U. of Patras and CTI Angelika Steger, TU Munich R¨udiger Urbanke, Swiss Federal Inst. of Tech. Salil Vadhan, Harvard U., chair, and the external reviewers: N. Alon, R. Alur, A. Ambainis, T. Batu, J. Feig- baum, S. Gerke, Y. Gertner, A. Goerdt, L. Goldberg, J. Hastad, C. Iliopoulos, Y. Ishai, V. Kabanets, S. Khot, L. Kirousis, S. Kontogiannis, M. Krivelevich, M. Mavronicolas, A. McGregor, F. McSherry, D. van Melkebeek, M. Molloy, E. Mossel, S. Nikoletseas, R. Raz, D. Ron, P. Tetali, L. Trevisan, E. Vigoda, J. Watrous, and P. Winkler.

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Titolo	Advance in Structural Bioinformatics / / edited by Dongqing Wei, Qin Xu, Tangzhen Zhao, Hao Dai
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2015
ISBN	94-017-9245-3
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (380 p.)
Collana	Advances in Experimental Medicine and Biology, , 0065-2598 ; ; 827
Disciplina	572
Soggetti	Bioinformatics Molecular biology Enzymology Chemistry, Physical and theoretical Computational Biology/Bioinformatics Molecular Medicine Theoretical and Computational Chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction to Structural Bioinformatics -- Modeling and Structure Determination -- The Structure Prediction of Biological Macromolecules -- The Biological Macromolecules in Computational Biology -- The Functional Analysis of Biological Macromolecules -- The Structure-Based Drug Design.
Sommario/riassunto	This text examines in detail mathematical and physical modeling, computational methods and systems for obtaining and analyzing biological structures, using pioneering research cases as examples. As such, it emphasizes programming and problem-solving skills. It provides information on structure bioinformatics at various levels, with individual chapters covering introductory to advanced aspects, from fundamental methods and guidelines on acquiring and analyzing genomics and proteomics sequences, the structures of protein, DNA and RNA, to the basics of physical simulations and methods for conformation searches. This book will be of immense value to researchers and students in the fields of bioinformatics, computational biology and chemistry. Dr. Dongqing Wei is a Professor at the

Department of Bioinformatics and Biostatistics, College of Life Science and Biotechnology, Shanghai Jiaotong University, Shanghai, China. His research interest is in the general area of structural bioinformatics.