1. Record Nr. UNISA996465302203316

Titolo	Stochastic Algorithms: Foundations and Applications [[electronic resource]] : International Symposium, SAGA 2001 Berlin, Germany, December 13-14, 2001 Proceedings / / edited by Kathleen Steinhöfel
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2001
ISBN	3-540-45322-9
Edizione	[1st ed. 2001.]
Descrizione fisica	1 online resource (CCXVI, 208 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2264
Disciplina	519.23
Soggetti	Probabilities Algorithms Computers Computer science—Mathematics Combinatorics Mathematical statistics Probability Theory and Stochastic Processes Algorithm Analysis and Problem Complexity Computation by Abstract Devices Discrete Mathematics in Computer Science Probability and Statistics in Computer Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Randomized Communication Protocols -- Optimal Mutation Rate Using Bayesian Priors for Estimation of Distribution Algorithms -- An Experimental Assessment of a Stochastic, Anytime, Decentralized, Soft Colourer for Sparse Graphs -- Randomized Branching Programs -- Yet Another Local Search Method for Constraint Solving -- An Evolutionary Algorithm for the Sequence Coordination in Furniture Production -- Evolutionary Search for Smooth Maps in Motor Control Unit Calibration -- Some Notes on Random Satisfiability -- Prospects for Simulated Annealing Algorithms in Automatic Differentiation -- Optimization and Simulation: Sequential Packing of Flexible Objects Using Evolutionary Algorithms -- Stochastic Finite Learning -- Sequential Sampling

Algorithms: Unified Analysis and Lower Bounds -- Approximate Location of Relevant Variables under the Crossover Distribution.

Sommario/riassunto

SAGA 2001, the ?rst Symposium on Stochastic Algorithms, Foundations and Applications, took place on December 13–14, 2001 in Berlin, Germany. The present volume comprises contributed papers and four invited talks that were included in the ?nal program of the symposium. Stochastic algorithms constitute a general approach to ?nding approximate solutions to a wide variety of problems. Although there is no formal proof that stochastic algorithms perform better than deterministic ones, there is evidence by empirical observations that stochastic algorithms produce for a broad range of applications near-optimal solutions in a reasonable run-time. The symposium aims to provide a forum for presentation of original research in the design and analysis, experimental evaluation, and real-world application of stochastic algorithms. It focuses, in particular, on new algorithmic ideas invo- ing stochastic decisions and exploiting probabilistic properties of the underlying problem domain. The program of the symposium re?ects the e?ort to promote cooperation among practitioners and theoreticians and among algorithmic and complexity researchers of the ?eld. In this context, we would like to express our special gratitude to DaimlerChrysler AG for supporting SAGA 2001. The contributed papers included in the proceedings present results in the following areas: Network and distributed algorithms; local search methods for combinatorial optimization with application to constraint satisfaction problems, manufacturing systems, motor control unit calibration, and packing ?exible - jects; and computational learning theory.