1. Record Nr. UNISA996465636503316

Titolo	Engineering Stochastic Local Search Algorithms. Designing, Implementing and Analyzing Effective Heuristics [[electronic resource]] : International Workshop, SLS 2009, Brussels, Belgium, September 3-5, 2009, Proceedings / / edited by Thomas Stützle, Mauro Birattari, Holger H. Hoos
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2009
ISBN	3-642-03751-8
Edizione	[1st ed. 2009.]
Descrizione fisica	1 online resource (X, 155 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 5752
Disciplina	005.11
Soggetti	Computer programming Artificial intelligence—Data processing Data structures (Computer science) Information theory Information retrieval Computer architecture Algorithms Computer science Programming Techniques Data Science Data Structures and Information Theory Data Storage Representation Computer Science Logic and Foundations of Programming Recursos electrònics en xarxa Cerca a Internet Programació estocàstica Congressos Llibres electrònics
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	High-Performance Local Search for Task Scheduling with Human Resource Allocation -- High-Performance Local Search for Task Scheduling with Human Resource Allocation -- On the Use of Run Time Distributions to Evaluate and Compare Stochastic Local Search Algorithms -- Estimating Bounds on Expected Plateau Size in MAXSAT Problems -- A Theoretical Analysis of the k-Satisfiability Search Space -- Loopy Substructural Local Search for the Bayesian Optimization Algorithm -- Running Time Analysis of ACO Systems for Shortest Path Problems -- Techniques and Tools for Local Search Landscape Visualization and Analysis -- Short Papers -- High-Performance Local Search for Solving Real-Life Inventory Routing Problems -- A Detailed Analysis of Two Metaheuristics for the Team Orienteering Problem -- On the Explorative Behavior of MAX–MIN Ant System -- A Study on Dominance-Based Local Search Approaches for Multiobjective Combinatorial Optimization -- A Memetic Algorithm for the Multidimensional Assignment Problem -- Autonomous Control Approach for Local Search -- EasyGenetic: A Template Metaprogramming Framework for Genetic Master-Slave Algorithms -- Adaptive Operator Selection for Iterated Local Search -- Improved Robustness through Population Variance in Ant Colony Optimization -- Mixed-Effects Modeling of Optimisation Algorithm Performance.
Sommario/riassunto	Stochastic local search (SLS) algorithms are established tools for the solution of computationally hard problems arising in computer science, business adm- istration, engineering, biology, and various other disciplines. To a large extent, their success is due to their conceptual simplicity, broad applicability and high performance for many important problems studied in academia and enco- tered in real-world applications. SLS methods include a wide spectrum of te- niques, ranging from constructive search procedures and iterative improvement algorithms to more complex SLS methods, such as ant colony optimization, evolutionary computation, iterated local search, memetic algorithms, simulated annealing, tabu search, and variable neighborhood search. Historically, the development of e?ective SLS algorithms has been guided to a large extent by experience and intuition. In recent years, it has become - creasingly evident that success with SLS algorithms depends not merely on the adoption and e? cient implementation of the most appropriate SLS technique for a given problem, but also on the mastery of a more complex algorithm - gineering process. Challenges in SLS algorithm development arise partly from the complexity of the problems being tackled and in part from the many - grees of freedom researchers and practitioners encounter when developing SLS algorithms. Crucial aspects in the SLS algorithm development comprise al- rithm design, empirical analysis techniques, problem-speci?c background, and background knowledge in several key disciplines and areas, including computer science, operations research, arti?cial intelligence, and statistics.