1. Record Nr. UNINA9910143604703321

Titolo	Evolutionary Multi-Criterion Optimization : First International Conference, EMO 2001, Zurich, Switzerland, March 7-9, 2001 Proceedings / / edited by Eckart Zitzler, Kalyanmoy Deb, Lothar Thiele, Carlos Coello Coello, David Corne
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2001
ISBN	3-540-44719-9
Edizione	[1st ed. 2001.]
Descrizione fisica	1 online resource (XIII, 714 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1993
Disciplina	658.4/03
Soggetti	Mathematical optimization Software engineering Computers Algorithms Computer science—Mathematics Artificial intelligence Optimization Software Engineering/Programming and Operating Systems Theory of Computation Algorithm Analysis and Problem Complexity Discrete Mathematics in Computer Science Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Tutorials -- Some Methods for Nonlinear Multi-objective Optimization -- A Short Tutorial on Evolutionary Multiobjective Optimization -- Invited Talks -- An Overview in Graphs of Multiple Objective Programming -- Poor-Definition, Uncertainty, and Human Factors - Satisfying Multiple Objectives in Real-World Decision-Making Environments -- Algorithm Improvements -- Controlled Elitist Non-dominated Sorting Genetic Algorithms for Better Convergence -- Specification of Genetic Search Directions in Cellular Multi-objective

Genetic Algorithms -- Adapting Weighted Aggregation for Multiobjective Evolution Strategies -- Incrementing Multi-objective Evolutionary Algorithms: Performance Studies and Comparisons -- A Micro-Genetic Algorithm for Multiobjective Optimization -- Evolutionary Algorithms for Multicriteria Optimization with Selecting a Representative Subset of Pareto Optimal Solutions -- Multi-objective Optimisation Based on Relation Favour -- Performance Assessment and Comparison -- Comparison of Evolutionary and Deterministic Multiobjective Algorithms for Dose Optimization in Brachytherapy -- On The Effects of Archiving, Elitism, and Density Based Selection in Evolutionary Multi-objective Optimization -- Global Multiobjective Optimization with Evolutionary Algorithms: Selection Mechanisms and Mutation Control -- Inferential Performance Assessment of Stochastic Optimisers and the Attainment Function -- A Statistical Comparison of Multiobjective Evolutionary Algorithms Including the MOMGA-II -- Performance of Multiple Objective Evolutionary Algorithms on a Distribution System Design Problem - Computational Experiment -- Constraint Handling and Problem Decomposition -- An Infeasibility Objective for Use in Constrained Pareto Optimization -- Reducing Local Optima in Single-Objective Problems by Multi-objectivization -- Constrained Test Problems for Multi-objective Evolutionary Optimization -- Constraint Method-Based Evolutionary Algorithm (CMEA) for Multiobjective Optimization -- Uncertainty and Noise -- Pareto-Front Exploration with Uncertain Objectives -- Evolutionary Multi-objective Ranking with Uncertainty and Noise -- Hybrid and Alternative Methods -- Tabu-Based Exploratory Evolutionary Algorithm for Effective Multi-objective Optimization -- Bi-Criterion Optimization with Multi Colony Ant Algorithms -- Multicriteria Evolutionary Algorithm with Tabu Search for Task Assignment -- A Hybrid Multi-objective Evolutionary Approach to Engineering Shape Design -- Fuzzy Evolutionary Hybrid Metaheuristic for Network Topology Design -- A Hybrid Evolutionary Approach for Multicriteria Optimization Problems: Application to the Flow Shop -- The Supported Solutions Used as a Genetic Information in a Population Heuristic -- Scheduling -- Multi-objective Flow-Shop: Preliminary Results -- Pareto-Optimal Solutions for Multi-objective Production Scheduling Problems -- Comparison of Multiple Objective Genetic Algorithms for Parallel Machine Scheduling Problems -- Applications -- A Bi-Criterion Approach for the Airlines Crew Rostering Problem -- Halftone Image Generation with Improved Multiobjective Genetic Algorithm -- Microchannel Optimization Using Multiobjective Evolution Strategies -- Multi-objective Optimisation of Cancer Chemotherapy Using Evolutionary Algorithms -- Application of Multi Objective Evolutionary Algorithms to Analogue Filter Tuning -- Multiobjective Design Optimization of Real-Life Devices in Electrical Engineering: A Cost-Effective Evolutionary Approach -- Application of Multiobjective Evolutionary Algorithms for Dose Optimization Problems in Brachytherapy -- Multiobjective Optimization in Linguistic Rule Extraction from Numerical Data -- Determining the Color-Efficiency Pareto Optimal Surface for Filtered Light Sources -- Multi-objective Design Space Exploration of Road Trains with Evolutionary Algorithms -- Multiobjective Optimization of Mixed Variable Design Problems -- Aerodynamic Shape Optimization of Supersonic Wings by Adaptive Range Multiobjective Genetic Algorithms -- Accurate, Transparent, and Compact Fuzzy Models for Function Approximation and Dynamic Modeling through Multi-objective Evolutionary Optimization -- Multi-objective Evolutionary Design of Fuzzy Autopilot Controller -- The Niched Pareto Genetic Algorithm 2 Applied to the Design of Groundwater Remediation Systems -- MOLeCS: Using Multiobjective

	Evolutionary Algorithms for Learning.
Sommario/riassunto	This book constitutes the refereed proceedings of the First International Conference on Multi-Criterion Optimization, EMO 2001, held in Zurich, Switzerland in March 2001. The 45 revised full papers presented were carefully reviewed and selected from a total of 87 submissions. Also included are two tutorial surveys and two invited papers. The book is organized in topical sections on algorithm improvements, performance assessment and comparison, constraint handling and problem decomposition, uncertainty and noise, hybrid and alternative methods, scheduling, and applications of multi-objective optimization in a variety of fields.