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Soggetti	Numerical analysis Algorithms Computer science - Mathematics Discrete mathematics Computer science Artificial intelligence Numerical Analysis Discrete Mathematics in Computer Science Theory of Computation Artificial Intelligence
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Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	A Biased Random-Key Genetic Algorithm for the Cloud Resource Management Problem -- A Computational Comparison of Different Algorithms for Very Large p-median Problems -- A New Solution Representation for the Firefighter Problem -- A Variable Neighborhood Search Approach for the Interdependent Lock Scheduling Problem -- A Variable Neighborhood Search for the Generalized Vehicle Routing Problem with Stochastic Demands -- An Iterated Local Search Algorithm for Solving the Orienteering Problem with Time Windows -- Analysis of Solution Quality of a Multi objective Optimization-Based Evolutionary Algorithm for Knapsack Problem -- Evolving Deep Recurrent Neural Networks Using Ant Colony Optimization -- Hyper-heuristic Operator Selection and Acceptance Criteria -- Improving the

Performance of the Germinal Center Artificial Immune System Using - Dominance: A Multi-objective Knapsack Problem -- Mixing Network Extremal Optimization for Community Structure Detection -- Multi-start Iterated Local Search for the Mixed Fleet Vehicle Routing Problem with Heterogeneous Electric Vehicles -- On the Complexity of Searching the Linear Ordering Problem Neighborhoods -- Runtime Analysis of  $(1 + 1)$  Evolutionary Algorithm Controlled with Q-learning Using Greedy Exploration Strategy on ONEMAX+ZEROMAX Problem -- The New Memetic Algorithm HEAD for Graph Coloring: An Easy Way for Managing Diversity -- The Sim-EA Algorithm with Operator Auto adaptation for the Multi objective Firefighter Problem -- True Pareto Fronts for Multi-objective AI Planning Instances -- Upper and Lower Bounds on Unrestricted Black-Box Complexity of JUMPn,l -- Using Local Search to Evaluate Dispatching Rules in Dynamic Job Shop Scheduling.

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#### Sommario/riassunto

This book constitutes the refereed proceedings of the 15th European Conference on Evolutionary Computation in Combinatorial Optimization, EvoCOP 2015, held in Copenhagen, Denmark, in April 2015, co-located with the Evo\*2015 events EuroGP, EvoMUSART and EvoApplications. The 19 revised full papers presented were carefully reviewed and selected from 46 submissions. The papers cover methodology, applications and theoretical studies. The methods included evolutionary and memetic (hybrid) algorithms, iterated local search, variable neighbourhood search, ant colony optimization, artificial immune systems, hyper-heuristics and other adaptive approaches. The applications include both traditional domains, such as graph coloring, knapsack, vehicle routing, job-shop scheduling, the p-median and the orienteering problems; and new(er) domains such as designing deep recurrent neural networks, detecting network community structure, lock scheduling of ships, cloud resource management, the fire-fighter problem and AI planning. The theoretical studies involved approximation ratio, runtime and black-box complexity analyses.

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