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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	From the Contents: Performance Analysis of Dynamic Optimization Algorithms -- Quantitative Performance Measures for Dynamic Optimization Problems -- Dynamic Function Optimization: The Moving Peaks Benchmark -- SRCS: a technique for comparing multiple algorithms under several factors in Dynamic Optimization Problems -- Dynamic Combinatorial Optimization Problems: A Fitness Landscape Analysis -- Two Approaches for Single and Multi-Objective Dynamic Optimization -- Self-Adaptive Differential Evolution for Dynamic Environments with Fluctuating Numbers of Optima -- Dynamic multi-objective optimization using PSO.
Sommario/riassunto	This book is an updated effort in summarizing the trending topics and new hot research lines in solving dynamic problems using metaheuristics. An analysis of the present state in solving complex problems quickly draws a clear picture: problems that change in time, having noise and uncertainties in their definition are becoming very important. The tools to face these problems are still to be built, since

existing techniques are either slow or inefficient in tracking the many global optima that those problems are presenting to the solver technique. Thus, this book is devoted to include several of the most important advances in solving dynamic problems. Metaheuristics are the more popular tools to this end, and then we can find in the book how to best use genetic algorithms, particle swarm, ant colonies, immune systems, variable neighborhood search, and many other bioinspired techniques. Also, neural network solutions are considered in this book. Both, theory and practice have been addressed in the chapters of the book. Mathematical background and methodological tools in solving this new class of problems and applications are included. From the applications point of view, not just academic benchmarks are dealt with, but also real world applications in logistics and bioinformatics are discussed here. The book then covers theory and practice, as well as discrete versus continuous dynamic optimization, in the aim of creating a fresh and comprehensive volume. This book is targeted to either beginners and experienced practitioners in dynamic optimization, since we took care of devising the chapters in a way that a wide audience could profit from its contents. We hope to offer a single source for up-to-date information in dynamic optimization, an inspiring and attractive new research domain that appeared in these last years and is here to stay.