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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Basic Concepts and Ideas -- Global Random Search: Fundamentals and Statistical Inference -- Global Random Search: Extensions -- Methods Based on Statistical Models of Multimodal Functions.
Sommario/riassunto	This book presents the main methodological and theoretical developments in stochastic global optimization. The extensive text is divided into four chapters; the topics include the basic principles and methods of global random search, statistical inference in random search, Markovian and population-based random search methods, methods based on statistical models of multimodal functions and principles of rational decisions theory. Key features: * Inspires readers to explore various stochastic methods of global optimization by clearly explaining the main methodological principles and features of the methods; * Includes a comprehensive study of probabilistic and

statistical models underlying the stochastic optimization algorithms; * Expands upon more sophisticated techniques including random and semi-random coverings, stratified sampling schemes, Markovian algorithms and population based algorithms; *Provides a thorough description of the methods based on statistical models of objective function; *Discusses criteria for evaluating efficiency of optimization algorithms and difficulties occurring in applied global optimization. Stochastic Global Optimization is intended for mature researchers and graduate students interested in global optimization, operations research, computer science, probability, statistics, computational and applied mathematics, mechanical and chemical engineering, and many other fields where methods of global optimization can be used.