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Nota di contenuto	Chapter 1. Foundations in Evolutionary Optimization Algorithms -- Chapter 2. Multi-agent Coordination -- Chapter 3. Evolutionary Algorithms in Presence of Noise -- Chapter 4. Learning based Noisy Optimization -- Chapter 5. Noisy Coordination in Multi-objective Settings -- Chapter 6. Integrating Principles of Noisy Optimization with Evolutionary Optimization -- Chapter 7. Conclusion and Future Direction.
Sommario/riassunto	Noisy optimization is a topic of growing interest for researchers working on mainstream optimization problems. Although several techniques for dealing with stochastic noise in optimization problems are covered in journals and conference proceedings, today there are virtually no books that approach noisy optimization from a layman's perspective; this book remedies that gap. Beginning with the foundations of evolutionary optimization, the book subsequently explores the principles of noisy optimization in single and multi- objective settings, and presents detailed illustrations of the principles developed for application in real-world multi-agent coordination problems. Special emphasis is given to the design of intelligent

algorithms for noisy optimization in real-time applications. The book is unique in terms of its content, writing style and above all its simplicity, which will appeal to readers with a broad range of backgrounds. The book is divided into 7 chapters, the first of which provides an introduction to Swarm and Evolutionary Optimization algorithms. Chapter 2 includes a thorough review of agent architectures for multi-agent coordination. In turn, Chapter 3 provides an extensive review of noisy optimization, while Chapter 4 addresses issues of noise handling in the context of single-objective optimization problems. An illustrative case study on multi-robot path-planning in the presence of measurement noise is also highlighted in this chapter. Chapter 5 deals with noisy multi-objective optimization and includes a case study on noisy multi-robot box-pushing. In Chapter 6, the authors examine the scope of various algorithms in noisy optimization problems. Lastly, Chapter 7 summarizes the main results obtained in the previous chapters and elaborates on the book's potential with regard to real-world noisy optimization problems.
