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ISBN	3-319-59156-8
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Descrizione fisica	1 online resource (476 pages)
Collana	Natural Computing Series, , 2627-6461
Disciplina	519.3
Soggetti	Computer science Computational intelligence Artificial intelligence Operations research Management science Theory of Computation Computational Intelligence Artificial Intelligence Operations Research, Management Science Operations Research and Decision Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Formal Models of Foraging -- Sensor Modalities -- Individual and Social Learning -- Introduction to Foraging Algorithms -- Mammals -- Bird Foraging Algorithms -- Fish Algorithms -- Ant Foraging Algorithms -- Honeybee Inspired Algorithms -- Bioluminescence Algorithms -- Spider Algorithms -- Worm Algorithm -- Bacteria Inspired Algorithms -- Slime Mould Foraging -- Plant Foraging Algorithms -- Group Search and Predatory Search -- Evolving Foraging Algorithms -- Conclusions.
Sommario/riassunto	This book is an introduction to relevant aspects of the foraging literature for algorithmic design, and an overview of key families of optimization algorithms that stem from a foraging metaphor. The authors first offer perspectives on foraging and foraging-inspired algorithms for optimization, they then explain the techniques inspired

by the behaviors of vertebrates, invertebrates, and non-neuronal organisms, and they then discuss algorithms based on formal models of foraging, how to evolve a foraging strategy, and likely future developments. No prior knowledge of natural computing is assumed. This book will be of particular interest to graduate students, academics and practitioners in computer science, informatics, data science, management science, and other application domains.