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Nota di contenuto	The Science of Biogeography -- Biogeography and Biological Optimization -- A Basic BBO Algorithm -- BBO Extensions -- BBO as a Markov Process -- Dynamic System Models of BBO -- Statistical Mechanics Approximations of BBO -- BBO for Combinatorial Optimization -- Constrained BBO -- BBO in Noisy Environments -- Multi-objective BBO -- Hybrid BBO Algorithms -- Appendices. Unconstrained Benchmark Functions -- Constrained Benchmark Functions -- Multi-objective Benchmark Functions.
Sommario/riassunto	Evolutionary computation algorithms are employed to minimize functions with large number of variables. Biogeographybased optimization (BBO) is an optimization algorithm that is based on the science of biogeography, which researches the migration patterns of species. These migration paradigms provide the main logic behind BBO. Due to the crossdisciplinary nature of the optimization problems, there is a need to develop multiple approaches to tackle them and to study the theoretical reasoning behind their performance. This book explains the mathematical model of BBO algorithm and its variants created to cope with continuous domain problems (with and without constraints) and combinatorial problems.