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Nota di contenuto	Contents; Introduction; I: A COMPARISON OF EVOLUTIONARY ALGORITHMS; 1 Organic Evolution and Problem Solving; 1.1 Biological Background; 1.2 Evolutionary Algorithms and Artificial Intelligence; 1.3 Evolutionary Algorithms and Global Optimization; 1.4 Early Approaches; 1.5 Summary; 2 Specific Evolutionary Algorithms; 2.1 Evolution Strategies; 2.2 Evolutionary Programming; 2.3 Genetic Algorithms; 2.4 Summary; 3 Artificial Landscapes; 3.1 Sphere Model; 3.2 Step Function; 3.3 Ackley's Function; 3.4 Function after Fletcher and Powell; 3.5 Fractal Function; 3.6 Summary; 4 An Empirical Comparison C.2 UsageC.3 Data Collection; D: The Multiprocessor Environment; D.1 The Transputer System; D.2 The Helios Operating System; E: Mathematical Symbols; Bibliography; Index; A; B; C; D; E; F; G; H; I; K; L; M; N; O; P; Q; R; S; T; U; V; W
Sommario/riassunto	Comparing the three most prominent representatives of evolutionary algorithms - genetic algorithms, evolution strategies and evolutionary

programming - this book examines the computational methods at the border between computer science and evolutionary biology. The algorithms are explained within a common framework, thereby clarifying the similarities and differences of these methods. The author also presents new results regarding the role of mutation and selection in genetic algorithms and uses a meta-evolutionary approach to confirm some of the theoretical results.
