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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Historical background -- Formulation of the optimal design of structures -- Charged system search -- Magnetic charged system search -- Field of forces optimization -- Dolphin echolocation optimization -- Ray optimization -- Harmony search -- Big bang-big crunch -- Cuckoo search optimization -- Cuckoo search method -- Imperialist competitive algorithm -- Hybrid optimization algorithms -- Use of chaotic theory in optimization -- Multi-objective optimization -- Applications of meta-heuristics.
Sommario/riassunto	This book presents efficient metaheuristic algorithms for optimal design of structures. Many of these algorithms are developed by the author and his colleagues, consisting of Democratic Particle Swarm Optimization, Charged System Search, Magnetic Charged System Search, Field of Forces Optimization, Dolphin Echolocation

Optimization, Colliding Bodies Optimization, Ray Optimization. These are presented together with algorithms which were developed by other authors and have been successfully applied to various optimization problems. These consist of Particle Swarm Optimization, Big Bang-Big Crunch Algorithm, Cuckoo Search Optimization, Imperialist Competitive Algorithm, and Chaos Embedded Metaheuristic Algorithms. Finally a multi-objective optimization method is presented to solve large-scale structural problems based on the Charged System Search algorithm. The concepts and algorithms presented in this book are not only applicable to optimization of skeletal structures and finiteelement models, but can equally be utilized for optimal design of other systems such as hydraulic and electrical networks. .