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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 993
Disciplina	006.3
Soggetti	Computers Artificial intelligence Mathematical models Algorithms Pattern recognition Theory of Computation Artificial Intelligence Mathematical Modeling and Industrial Mathematics Computation by Abstract Devices Algorithm Analysis and Problem Complexity Pattern Recognition
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Some combinatorial landscapes on which a Genetic Algorithm outperforms other Stochastic iterative methods -- Maximum entropy analysis of genetic algorithm operators -- The ant colony metaphor for searching continuous design spaces -- Broadcast based fitness sharing GA for conflict resolution among autonomous robots -- An adaptive poly-parental recombination strategy -- Neighbourhood seeding to reduce problem modality -- Specialised recombinative operators for timetabling problems -- The use of local search suggestion lists for improving the solution of timetable problems with evolutionary algorithms -- Comparing genetic algorithms, simulated annealing, and stochastic hillclimbing on timetabling problems -- Evolutionary

learning in computational ecologies: An application to adaptive distributed routing in communication networks -- The radio link frequency assignment problem: A case study using genetic algorithms -- Scheduling planned maintenance of the national grid -- Genetic operators and constraint handling for pipe network optimization -- A multi-objective approach to constrained optimisation of gas supply networks: The COMOGA method -- Ternary decision diagram optimisation of Reed-Muller logic functions using a genetic algorithm for variable and simplification rule ordering -- An evolutionary algorithm for parametric array signal processing -- Constraints on task and search complexity in GA+NN models of learning and adaptive behaviour -- Load balancing application of the genetic algorithm in a nonstationary environment -- Exploring some commercial applications of genetic programming.

Sommario/riassunto

This volume is based on the Workshop on Evolutionary Computing held in Sheffield, U.K., in April 1995 under the sponsorship of the Society for the Study of Artificial Intelligence and Simulation of Behavior (AISB). The 18 full papers presented were selected during a post-workshop refereeing meeting and chosen from 32 submissions for the workshop. The papers are organized in sections on evolutionary computing theory and techniques, timetabling, routing and scheduling, optimization, signal processing and control, and genetic programming. The collection of papers has a certain bias towards real world applications of evolutionary computing and particularly genetic algorithms.