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Titolo	Artificial Evolution : 8th International Conference, Evolution Artificielle, EA 2007 Tours, France, October 29-31, 2007, Revised Selected Papers // edited by Nicolas Monmarché, El-Ghazali Talbi, Pierre Collet, Marc Schoenauer, Evelyne Lutton
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Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4926
Disciplina	005.1
Soggetti	Software engineering Computer science Algorithms Artificial intelligence Numerical analysis Pattern recognition systems Software Engineering Theory of Computation Artificial Intelligence Numerical Analysis Automated Pattern Recognition
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Genetic Programming -- Treating Noisy Data Sets with Relaxed Genetic Programming -- Cost-Benefit Investigation of a Genetic-Programming Hyperheuristic -- Automatic Design of Vision-Based Obstacle Avoidance Controllers Using Genetic Programming -- Generating SAT Local-Search Heuristics Using a GP Hyper-Heuristic Framework -- Swarm Intelligence -- Magnetic Resonance Image Segmentation Based on Two-Dimensional Exponential Entropy and a Parameter Free PSO -- Mimetic Variations on Stigmergic Swarm Paintings -- Minimal and Necessary Conditions for the Emergence of Species-Specific Recognition Patterns -- Artificial Ants for the Optimization of Virtual

Keyboard Arrangement for Disabled People -- Combinational and Multi-objective Optimization -- Self-organization and Evolution Combined to Address the Vehicle Routing Problem -- An Evolutionary Algorithm for the Block Stacking Problem -- A Study of Evaluation Functions for the Graph K-Coloring Problem -- Genetic Branch-and-Bound or Exact Genetic Algorithm? -- Aerodynamic Topology Optimisation Using an Implicit Representation and a Multiobjective Genetic Algorithm -- Direct and Indirect Representations for Evolutionary Design of Objects -- Adaptive and Assortative Mating Scheme for Evolutionary Multi-Objective Algorithms -- Theory in GA and ES -- The Cooperative Royal Road: Avoiding Hitchhiking -- Conditioning, Halting Criteria and Choosing ? -- Log-Linear Convergence and Optimal Bounds for the $(1+\lambda)$ -ES -- Applications of EAs -- Evolution Strategies for Laser Pulse Compression -- Fully Three-Dimensional Tomographic Evolutionary Reconstruction in Nuclear Medicine -- A Study of Crossover Operators for Gene Selection of Microarray Data -- Searching for Glider Guns in Cellular Automata: Exploring Evolutionary and Other Techniques -- A Genetic Algorithm for Generating Improvised Music -- Unsupervised Learning of Echo State Networks: A Case Study in Artificial Embryogeny -- Enhanced Genetic Algorithm with Guarantee of Feasibility for the Unit Commitment Problem -- On the Design of Adaptive Control Strategies for Evolutionary Algorithms -- Improvement of Intelligent Optimization by an Experience Feedback Approach.

Sommario/riassunto

This book constitutes the thoroughly refereed post-conference proceedings of the 8th International Conference on Artificial Evolution, EA 2007, held in Tours, France in October 2007. The 27 revised full papers presented were carefully reviewed and selected from 62 submissions during two rounds of reviewing and improvement. The papers cover all aspects of artificial evolution: genetic programming, swarm intelligence, combinatorial and multi-objective optimization, theory in genetic algorithms and evolutionary systems, as well as applications of evolutionary algorithms.
