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Altri autori (Persone)	ColletPierre
Disciplina	005.1
Soggetti	Artificial intelligence Computer networks Computer science Algorithms Application software Information technology - Management Artificial Intelligence Computer Communication Networks Theory of Computation Computer and Information Systems Applications Computer Application in Administrative Data Processing
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Theory -- Extremal Optimization Dynamics in Neutral Landscapes: The Royal Road Case -- Improving the Scalability of EA Techniques: A Case Study in Clustering -- Ant Colony Optimization -- MC-ANT: A Multi-Colony Ant Algorithm -- Applications -- Artificial Evolution for 3D PET Reconstruction -- A Hybrid Genetic Algorithm/Variable Neighborhood Search Approach to Maximizing Residual Bandwidth of Links for Route Planning -- Parallelization of an Evolutionary Algorithm on a Platform

with Multi-core Processors -- On the Difficulty of Inferring Gene Regulatory Networks: A Study of the Fitness Landscape Generated by Relative Squared Error -- Combinatorial Optimization -- Memetic Algorithms for Constructing Binary Covering Arrays of Strength Three -- A Priori Knowledge Integration in Evolutionary Optimization -- Robotics -- On-Line, On-Board Evolution of Robot Controllers -- The Transfer of Evolved Artificial Immune System Behaviours between Small and Large Scale Robotic Platforms -- Multi-objective Optimization -- An Analysis of Algorithmic Components for Multiobjective Ant Colony Optimization: A Case Study on the Biobjective TSP -- Alternative Fitness Assignment Methods for Many-Objective Optimization Problems -- Genetic Programming -- Evolving Efficient List Search Algorithms -- Semantic Similarity Based Crossover in GP: The Case for Real-Valued Function Regression -- Genetic-Programming Based Prediction of Data Compression Saving -- Machine Learning -- On the Characteristics of Sequential Decision Problems and Their Impact on Evolutionary Computation and Reinforcement Learning.

Sommario/riassunto

This LNCS volume contains the best papers presented at the 9th Conference on Artificial Evolution, EA 2009, held in Strasbourg (France). Previous EA events took place in Tours (2007, LNCS 4926), Lille (2005, LNCS 3871), Marseille (2003, LNCS 2936), Le Creusot (2001, LNCS 2310), Dunkerque (1999, LNCS 1829), Nîmes (1997, LNCS 1363), Brest (1995, LNCS 1063) and Toulouse (1994, LNCS 1063). For this ninth edition, authors were invited to present their original work relevant to artificial evolution, including, but not limited to: evolutionary computation, evolutionary optimization, co-evolution, artificial life, population dynamics, theory, algorithmics and modeling, implementations, application of evolutionary paradigms to the real world (industry, biosciences, ...), other biologically-inspired paradigms (swarm, artificial ants, artificial immune systems, ...), memetic algorithms, multi-objective optimization, constraint handling, parallel algorithms, dynamic optimization, machine learning and hybridization with other soft computing techniques. Submitted papers were reviewed by at least four members of the International Program Committee, which selected 23 papers to be presented during the conference out of 43 submissions. However, only 17 papers were included in the present volume, resulting in a 39.5% acceptance rate. We would like to thank the members of the Program Committee for their conscientious work, the authors for their greatly appreciated contributions, but also the members of the Organizing Committee who, once more, managed to put together a really enjoyable conference in Strasbourg. Finally, financial and material support coming from ENSPS, Université de Strasbourg, CNRS, Région Alsace and the EA association contributed to the success of the conference and helped to keep registration fees very low.