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Soggetti	Algorithms Artificial intelligence Computers, Special purpose Computer systems Microprocessors Computer architecture Logic design Artificial Intelligence Special Purpose and Application-Based Systems Computer System Implementation Processor Architectures Logic Design
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	EvoBAFIN: Minimization of Systemic Risk for Directed Network Using Genetic Algorithm -- Pricing Rainfall Based Futures Using Genetic Programming -- Dynamic Portfolio Optimization in Ultra-High Frequency Environment -- EvoBIO: Integration of Reaction Kinetics Theory and Gene Expression Programming to Infer Reaction Mechanism -- De Novo DNA Assembly with a Genetic Algorithm Finds Accurate Genomes Even with Suboptimal Fitness -- EVE: Cloud-based Annotation of Human Genetic Variants -- Improving the Reproducibility

of Genetic Association Results Using Genotype Resampling Methods -- Objective Assessment of Cognitive Impairment in Parkinson's Disease Using Evolutionary Algorithm -- Characterizing the Influence of Rule-based Knowledge Representations in Biological Knowledge Extraction from Transcriptomics Data -- Enhancing Grammatical Evolution through Data Augmentation: Application to Blood Glucose Forecasting -- Genetic Programming Representations for Multi-dimensional Feature Learning in Biomedical Classification -- EvoCOMNET: Meta-heuristically Seeded Genetic Algorithm for Independent Job Scheduling in Grid Computing -- Analysis of Average Communicability in Complex Networks -- Configuring Dynamic Heterogeneous Wireless Communications Networks Using a Customized Genetic Algorithm -- Multi-Objective Evolutionary Algorithms for Influence Maximization in Social Networks -- A fast ILP-based Heuristic for the Robust Design of Body Wireless Sensor Networks -- EvoCOMPLEX: Lamarckian and Lifelong Memetic Search in Agent-based Computing -- Two-phase Strategy Managing Insensitivity in Global Optimization -- Avenues for the Use of Cellular Automata in Image Segmentation -- Local Misfit Approximation in Memetic Solving of Ill-posed Inverse Problems -- The Two Regimes of Neutral Evolution: Localization on Hubs and Delocalized Diffusion -- EvoENERGY: Adaptive Batteries Exploiting On-line Steady-State Evolution Strategy -- Hybrid Multi-Ensemble Scheduling -- EvoGAMES: Driving in TORCS Using Modular Fuzzy Controllers -- Automated Game Balancing in Ms Pacman and StarCraft Using Evolutionary Algorithms -- Evolving Game-specific UCB Alternatives for General Video Game Playing -- Relief Camp Manager: A Serious Game Using the World Health Organization's Relief Camp Guidelines -- Analysis of Vanilla Rolling Horizon Evolution Parameters in General Video Game Playing -- Darwin's Demons: Does Evolution Improve the Game -- EvoASP: Evolutionary Art Using the Fly Algorithm -- Bagging and Feature Selection for Classification with Incomplete Data -- Surrogate-model Based Particle Swarm Optimization with Local Search for Feature Selection in Classification -- Feature Selection in High Dimensional Data by a Filter-Based Genetic Algorithm -- Brain Programming and the Random Search in Object Categorization -- Using Particle Swarm Optimization and the Silhouette Metric to Estimate the Number of Clusters, Select Features, and Perform Clustering -- EvoINDUSTRY: Container Vessel Stowage Planning System Using Genetic Algorithm -- The Artificial Immune Ecosystem: a Bio-inspired Meta-algorithm for Boosting Time Series Anomaly Detection with Expert Input -- Empirical Analysis of Optimization Methods for the Real-World Dial-a-Ride Problem -- EvoKNOW: Presenting the ECO: Evolutionary Computation Ontology -- A New Evolutionary Algorithm for Synchronization -- Large Scale Problems in Practice: The Effect of Dimensionality on the Interaction among Variables -- A Framework for Knowledge Integrated Evolutionary Algorithms -- DICE: A New Family of Bivariate Estimation of Distribution Algorithms Based on Dichotomized Multivariate Gaussian Distributions -- EvoNUM: Ranking Programming Languages for Evolutionary Algorithm Operations -- Distance-based Tournament Selection -- Preferences-Based Choice Prediction in Evolutionary Multi-Objective Optimization -- Numerical Optimization of ESA's Messenger Space Mission Benchmark -- EvoPAR: A VNS with Parallel Evaluation of Solutions for the Inverse Lighting Problem -- Evolving Cut-off Mechanisms and Other Work-Stealing Parameters for Parallel Programs -- Issues on GPU Parallel Implementation of Evolutionary High-dimensional Multi-objective Feature Selection -- Embedded Grammars for Grammatical Evolution on GPGPU -- A Performance Assessment of Evolutionary Algorithms in

Volunteer Computing Environments: the Importance of Entropy --
EvoROBOT: Overcoming Initial Convergence in Multi-Objective
Evolution of Robot Control and Morphology Using a Two-Phase
Approach -- Evolutionary Adaptation to Social Information Use without
Learning -- Interactive Evolution of Complex Behaviours through Skill
Encapsulation -- Evolution and Morphogenesis of Simulated Modular
Robots: A Comparison Between a Direct and Generative Encoding --
Continual and One-Shot Learning through Neural Networks with
Dynamic External Memory.

Sommario/riassunto

The two volumes LNCS 10199 and 10200 constitute the refereed conference proceedings of the 20th European Conference on the Applications of Evolutionary Computation, EvoApplications 2017, held in Amsterdam, The Netherlands, in April 2017, collocated with the Evo* 2016 events EuroGP, EvoCOP, and EvoMUSART. The 46 revised full papers presented together with 26 poster papers were carefully reviewed and selected from 108 submissions. EvoApplications 2016 consisted of the following 13 tracks: EvoBAFIN (natural computing methods in business analytics and finance), EvoBIO (evolutionary computation, machine learning and data mining in computational biology), EvoCOMNET (nature-inspired techniques for telecommunication networks and other parallel and distributed systems), EvoCOMPLEX (evolutionary algorithms and complex systems), EvoENERGY (evolutionary computation in energy applications), EvoGAMES (bio-inspired algorithms in games), EvoIASP (evolutionary computation in image analysis, signal processing, and pattern recognition), EvoINDUSTRY (nature-inspired techniques in industrial settings), EvoKNOW (knowledge incorporation in evolutionary computation), EvoNUM (bio-inspired algorithms for continuous parameter optimization), EvoPAR (parallel implementation of evolutionary algorithms), EvoROBOT (evolutionary robotics), EvoSET (nature-inspired algorithms in software engineering and testing), and EvoSTOC (evolutionary algorithms in stochastic and dynamic environments). .
