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Nota di contenuto	EvoBAFIN: Enhanced Multiobjective Population-Based Incremental Learning with Applications in Risk Treaty Optimization -- Genetic Programming with Memory for Financial Trading -- Improving Fitness Functions in Genetic Programming for Classification on Unbalanced Credit Card Data -- Evolving Classification Models for Prediction of Patient Recruitment in Multicentre Clinical Trials Using Grammatical Evolution -- Portfolio Optimization, a Decision-Support Methodology for Small Budgets -- Evolutionary Multiobjective Optimization for Portfolios in Emerging Markets: Contrasting Higher Moments and Median Models -- EvoBIO: On Combinatorial Optimisation in Analysis of Protein-Protein Interaction and Protein Folding Networks -- A Multi-

objective Genetic Programming Biomarker Detection Approach in Mass Spectrometry Data -- Automating Biomedical Data Science Through Tree-Based Pipeline Optimization -- Bicliques in Graphs with Correlated Edges: From Artificial to Biological Networks -- Hybrid Biclustering Algorithms for Data Mining -- Discovering Potential Clinical Profiles of Multiple Sclerosis from Clinical and Pathological Free Text Data with Constraint Non-negative Matrix Factorization -- Application of Evolutionary Algorithms for the Optimization of Genetic Regulatory Networks -- EvoCOMNET: A Hybrid Discrete Artificial Bee Colony Algorithm for the Multicast Routing Problem -- Evolving Coverage Optimisation Functions for Heterogeneous Networks Using Grammatical Genetic Programming -- Joint Topology Optimization, Power Control and Spectrum Allocation for Intra-Vehicular Multi-hop Sensor Networks Using Dandelion-Encoded Heuristics -- A Heuristic Crossover Enhanced Evolutionary Algorithm for Clustering Wireless Sensor Network -- A Variable Local Search Based Memetic Algorithm for the Load Balancing Problem in Cloud Computing -- An (MI)LP-Based Primal Heuristic for 3-Architecture Connected Facility Location in Urban Access Network Design -- Reducing Efficiency of Connectivity-Splitting Attack on Newscast via Limited Gossip -- A Distributed Intrusion Detection Framework Based on Evolved Specialized Ensembles of Classifiers -- UAV Fleet Mobility Model with Multiple Pheromones for Tracking Moving Observation Targets -- EvoCOMPLEX: Towards Intelligent Biological Control: Controlling Boolean Networks with Boolean Networks -- The Emergence of Cooperation in Public Goods Games on Randomly Growing Dynamic Networks -- Influence Maximization in Social Networks with Genetic Algorithms -- Measuring Diversity of Socio-Cognitively Inspired ACO Search -- Multiwinner Voting in Genetic Algorithms for Solving Ill-Posed Global Optimization Problems -- EvoENERGY: A Decentralized PSO with Decoder for Scheduling Distributed Electricity Generation -- Comparison of Multi-objective Evolutionary Optimization in Smart Building Scenarios -- Stigmergy-Based Scheduling of Flexible Loads -- Electrical Load Pattern Shape Clustering Using Ant Colony Optimization -- Optimization of Operation and Control Strategies for Battery Energy Storage Systems by Evolutionary Algorithms -- EvoGAMES: Orthogonally Evolved AI to Improve Difficulty Adjustment in Video Games -- There Can Be only One: Evolving RTS Bots via Joust Selection -- Constrained Level Generation through Grammar-Based Evolutionary Algorithms -- Evolving Chess-Like Games Using Relative Algorithm Performance Profiles -- Online Evolution for Multi-action Adversarial Games -- The Story of Their Lives: Massive Procedural Generation of Heroes' Journeys Using Evolved Agent-Based Models and Logical Reasoning -- Dangerousness Metric for Gene Regulated Car Driving -- Using Isovists to Evolve Terrains with Gameplay Elements -- A Spatially-Structured PCG Method for Content Diversity in a Physics-Based simulation Game -- Design and Evaluation of an Extended Learning Classifier-Based StarCraft Micro AI -- EvoIASP: A Wrapper Feature Selection Approach to Classification with Missing Data -- Bare-Bone Particle Swarm Optimisation for Simultaneously Discretising and Selecting Features For High-Dimensional Classification -- Mutual Information Estimation for Filter Based Feature Selection Using Particle Swarm Optimization -- Speaker Verification on Unbalanced Data with Genetic Programming -- Binary Tomography Reconstruction by Particle Aggregation -- Population Based Ant Colony Optimization for Reconstructing ECG Signals -- EvoINDUSTRY: Can Evolutionary Algorithms Beat Dynamic Programming for Hybrid -- NSGA-II Based Auto-Calibration of Automatic Number Plate Recognition Camera for Vehicle Speed

Measurement -- Environment-Model Based Testing with Differential Evolution in an Industrial Setting -- Workforce Scheduling in Inbound Customer Call Centres with a Case Study. .

Sommario/riassunto

The two volumes LNCS 9597 and 9598 constitute the refereed conference proceedings of the 19th European Conference on the Applications of Evolutionary Computation, EvoApplications 2016, held in Porto, Portugal, in March/April 2016, co-located with the Evo* 2016 events EuroGP, EvoCOP, and EvoMUSART. The 57 revised full papers presented together with 17 poster papers were carefully reviewed and selected from 115 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), EvoNUM (bio-inspired algorithms for continuous parameter optimization), EvoPAR (parallel implementation of evolutionary algorithms), EvoRISK (computational intelligence for risk management, security and defence applications), EvoROBOT (evolutionary robotics), and EvoSTOC (evolutionary algorithms in stochastic and dynamic environments).