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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	On Restricting Real-Valued Genotypes in Evolutionary Algorithms -- Towards Explainable Exploratory Landscape Analysis: Extreme Feature Selection for Classifying BBOB Functions -- Co-Optimising Robot Morphology and Controller in a Simulated Open-ended Environment -- Multi-objective workforce allocation in construction projects -- Generating Duplex Routes for Robust Bus Transport Network by Improved Multi-objective Evolutionary Algorithm based on Decomposition -- Combining Multi-objective Evolutionary Algorithms

with deep generative models towards focused molecular design -- A Multi-Objective Evolutionary Algorithm Approach for Optimizing Part Quality Aware Assembly Job Shop Scheduling Problems -- Evolutionary Grain-Mixing to Improve Profitability in Farming Winter Wheat -- Automatic Modular Design of Behavior Trees for Robot Swarms with Communication Capabilites -- Salp Swarm Optimization Search Based Feature Selection for Enhanced Phishing Websites Detection -- Real Time Optimisation of TrafficSignals to Prioritise Public Transport -- Adaptive Covariance Pattern Search -- Evaluating the Success-History based Adaptive Differential Evolution in the Protein Structure Prediction problem -- Beyond Body Shape and Brain: Evolving the Sensory Apparatus of Voxel-based Soft Robots -- Desirable Objective Ranges in Preference-based Evolutionary Multiobjective Optimization -- Improving Search Efficiency and Diversity of Solutions in Multiobjective Binary Optimization by Using Metaheuristics plus Integer Linear Programming -- Automated, Explainable Rule Extraction from MAP-Elites archives -- EDM-DRL: Toward Stable Reinforcement Learning through Ensembled Directed Mutation -- Continuous Ant-Based Neural Topology -- Playing with Dynamic Systems - Battling Swarms in Virtual Reality -- EvoCraft: A New Challenge for Open-Endedness -- A Profile-Based 'GrEvolutionary' Hearthstone Agent -- Modelling Asthma Patients' Responsiveness to Treatment Using Feature Selection and Evolutionary Computation -- Bayesian Networks for Mood Prediction Using Unobtrusive Ecological Momentary Assessments -- A Multi-Objective Multi-Type Facility Location Problem for the Delivery of Personalised Medicine -- RDE-OP: A Region-Based Differential Evolution Algorithm Incorporation Opposition-Based Learning for Optimising the Learning Process of Multi-Layer Neural Networks -- Estimation of Grain-level Residual Stresses in a Quenched Cylindrical Sample of Aluminum Alloy AA5083 using Genetic Programming -- EDA-based optimization of blow-off valve positions for centrifugal compressor systems -- 3D-2D Registration using X-ray Simulation and CMA-ES -- Lateralized Approach for Robustness AgainstAttacks in Emotion Categorization from Images -- Improved Crowding Distance in Multi-objective Optimization for Feature Selection in Classification -- Deep Optimisation: Multi-Scale Evolution by Inducing and Searching in Deep Representations -- Evolutionary Planning in Latent Space -- Utilizing the Untapped Potential of IndirectEncoding for Neural Networks with Meta Learning -- Effective Universal Unrestricted Adversarial Attacks using a MOE Approach -- Improving Distributed Neuroevolution Using Island Extinction and Repopulation -- An Experimental Study of Weight Initialization and Lamarckian Inheritance on Neuroevolution -- Towards Feature-Based Performance Regression Using Trajectory Data -- Demonstrating the Evolution of GANs through t-SNE -- Optimising diversity in classifier ensembles of classification trees -- WILDA: Wide Learning of Diverse Architectures for Classification of Large Datasets -- Evolving Character-Level DenseNet Architectures using Genetic Programming -- Transfer Learning for Automated Test Case Prioritization using XCSF -- On the Effects of Absumption for XCS with Continuous-Valued Inputs -- A NEAT Visualisation of Neuroevolution Trajectories -- Evaluating Models with Dynamic Sampling Holdout -- Event-driven multi-algorithm optimization: mixing Swarm and Evolutionary strategies -- TensorGP – Genetic Programming Engine in TensorFlow -- A novel evolutionary approach for IoT-based water contaminant detection -- Evolutionary Algorithms for Roughness Coefficient Estimation in River Flow Analyses -- EA-based ASV Trajectory Planner for Pollution Detection in Lentic Waters.

Sommario/riassunto

This book constitutes the refereed proceedings of the 24th International Conference on Applications of Evolutionary Computation, EvoApplications 2021, held as part of Evo*2021, as Virtual Event, in April 2021, co-located with the Evo*2021 events EuroGP, EvoCOP, and EvoMUSART. The 51 revised full papers presented in this book were carefully reviewed and selected from 78 submissions. The papers cover a wide spectrum of topics, ranging from applications of evolutionary computation; applications of deep bioinspired algorithms; soft computing applied to games; machine learning and AI in digital healthcare and personalized medicine; evolutionary computation in image analysis, signal processing and pattern recognition; evolutionary machine learning; parallel and distributed systems; and applications of nature inspired computing for sustainability and development.