1. Record Nr. UNISA996655269203316

Titolo	Applications of Evolutionary Computation : 28th European Conference, EvoApplications 2025, Held as Part of EvoStar 2025, Trieste, Italy, April 23–25, 2025, Proceedings, Part I / / edited by Pablo García-Sánchez, Emma Hart, Sarah L. Thomson
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	3-031-90062-6
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (XXII, 576 p. 189 illus., 170 illus. in color.)
Collana	Lecture Notes in Computer Science, , 1611-3349 ; ; 15612
Disciplina	004.0151
Soggetti	Computer science Computers Computer networks Computers, Special purpose Computer systems Computer science - Mathematics Theory of Computation Computing Milieux Computer Communication Networks Special Purpose and Application-Based Systems Computer System Implementation Mathematics of Computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	-- EvoApplications. -- Optimizing Dietary Plans Using Evolutionary Algorithms. -- Building Cross-Sectional Trading Strategies via Geometric Semantic Genetic Programming. -- Adjacent Distance Matrix-based Competitive Swarm Optimizer. -- The More the Merrier: On Evolving Five-valued Spectra Boolean Functions. -- Search Trajectory Networks Applied to a Real-world Parallel Batch Scheduling Problem. -- Optimizing the logistics operations of distribution network operators from a multinational electric utility company. -- Analysis of Illicit Drug Mixtures at Festivals Using Portable Near-Infrared

Spectroscopy with Genetic Programming. -- Hybrid Optimization of Horizontal Alignments in European Terrains: A Comparative Study. -- Facial Geometric Feature Extraction for Dimensional Emotion Analysis Using Genetic Programming. -- Methodology for Designing Injection Molds: Data Mining and Multi-Objective Optimization. -- Climbing the tower of meta-mutations - the role of higher-order mutations. -- Evolutionary Reinforcement Learning for Interpretable Decision-Making in Supply Chain Management. -- Grammatical Feature Construction for Enhanced Interpretability in Breast Cancer Classification. -- Designing Hardware-Friendly Hash Functions for Network Security Using Cartesian Genetic Programming. -- Understanding trade-offs in classifier bias with quality-diversity optimization: an application to talent management. -- Genetic Programming with Co-operative Co-evolution for Feature Manipulation in Basal Cell Carcinoma Identification. -- Multi-Objective Evolutionary Optimization of Virtualized Fast Feedforward Networks. -- Variable-Size Genetic Network Programming for Portfolio Optimization with Trading Rules. -- Evolving Dynamic Fault Mitigation Strategies in a Robot Swarm for Collective Transport. -- Inferring Reaction Elasticities from Metabolic Correlations in Cells through Multi-objective Evolutionary Optimization. -- Trace-Elites: better Quality-Diversity with Multi-Point Descriptors. -- Optimizing Camera Placement for Chicken Farm Monitoring. -- Adaptive Local Search for Real-World Multi-Echelon Inventory Control. -- Evolutionary Computation for Causality-Driven Feature Selection: A Preliminary Study. -- A Coach-Based Quality-Diversity Approach for Multi-Agent Interpretable Reinforcement Learning. -- FedGP: Genetic Programming for Evolutionary Aggregation in Federated Learning with Non-IID data. -- A Genetic Algorithm Approach for Aggregation of Residential Electricity Prosumers' Flexibility. -- Algorithm Selection with Probing Trajectories: Benchmarking the Choice of Classifier Model. -- Real Application Challenges in Evolutionary Optimization? People!. -- The Importance of Being Earnest: Multiple Heterogeneous Container Loading with a Simple Genetic Algorithm. -- Emergent kin selection of altruistic feeding behaviour via non-episodic neuroevolution. -- Stalling in Space: Attractor Analysis for any Algorithm. -- Using Local Correlation Between Objectives to Detect Problem Modality. -- Greater AI Design Control Aids Evolution of Computational Materials. -- Scalable Evolution of Logically Independent Polycomputational Materials.

Sommario/riassunto

This two-volume set, LNCS 15612 and 15613 constitutes the refereed proceedings of the 28th European Conference on Applications of Evolutionary Computation, EvoApplications 2025, held as part of EvoStar 2025, in Trieste, Italy, during April 23–25, 2025, and co-located with the EvoStar events, EvoCOP, EvoMUSART, and EuroGP. The 50 full papers and 18 short papers presented in this book were carefully reviewed and selected from 104 submissions. These papers have been organized in the following topical sections: Part I: EvoApplications. Part II: Evolutionary machine learning; 30 years of particle swarm optimisation; Analysis of Evolutionary Computation Methods: Theory, Empirics, and Real-World Applications; Bio-inspired Algorithms for Green Computing and Sustainable Complex Systems; Computational Intelligence for Sustainability; EvoLLMs (Integrating Evolutionary Computing with Large Language Models (LLMs); Evolutionary Computation in Edge, Fog, and Cloud Computing; Evolutionary Computation in Image Analysis, Signal Processing, and Pattern Recognition; Machine Learning and AI in Digital Healthcare and Personalized Medicine; Soft Computing Applied to Games.