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Soggetti	Algorithms Computer arithmetic and logic units Artificial intelligence Data mining Data structures (Computer science) Information theory Arithmetic and Logic Structures Artificial Intelligence Data Mining and Knowledge Discovery Data Structures and Information Theory
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Nota di contenuto	Using GP Is NEAT: Evolving Compositional Pattern Production Functions -- Evolving the Topology of Large Scale Deep Neural Networks -- Evolving Graphs by Graph Programming -- Pruning Techniques for Mixed Ensembles of Genetic Programming Models -- Analyzing Feature Importance for Metabolomics Using Genetic Programming -- Generating Redundant Features with Unsupervised Multi-Tree Genetic Programming -- On the Automatic Design of a Representation for Grammar-Based Genetic Programming -- Multi-Level Grammar Genetic Programming for Scheduling in Heterogeneous Networks -- Scaling Tangled Program Graphs to Visual Reinforcement Learning in ViZDoom

-- Towards In Vivo Genetic Programming: Evolving Boolean Networks to Determine Cell States -- A Multiple Expression Alignment Framework for Genetic Programming -- Multi-Objective Evolution of Ultra-Fast General-Purpose Hash Functions -- A Comparative Study on Crossover in Cartesian Genetic Programming -- Evolving Better RNAfold Structure Prediction -- Geometric Crossover in Syntactic Space -- Investigating A Machine Breakdown Genetic Programming Approach for Dynamic Job Shop Scheduling -- Structurally Layered Representation Learning: Towards Deep Learning Through Genetic Programming -- Comparing Rule Evaluation Metrics for the Evolutionary Discovery of Multi-Relational Association Rules in the Semantic Web -- Genetic Programming Hyperheuristic with Cooperative Coevolution for Dynamic Flexible Job Shop Scheduling. .

Sommario/riassunto

This book constitutes the refereed proceedings of the 21st European Conference on Genetic Programming, EuroGP 2018, held in Parma, Italy, in April 2018, co-located with the Evo* 2018 events, EvoCOP, EvoMUSART, and EvoApplications. The 11 revised full papers presented together with 8 poster papers were carefully reviewed and selected from 36 submissions. The wide range of topics in this volume reflects the current state of research in the field. Thus, we see topics and applications including analysis of feature importance for metabolomics, semantic methods, evolution of boolean networks, generation of redundant features, ensembles of GP models, automatic design of grammatical representations, GP and neuroevolution, visual reinforcement learning, evolution of deep neural networks, evolution of graphs, and scheduling in heterogeneous networks.