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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Talks -- On the Impact of the Representation on Fitness Landscapes -- The Legion System: A Novel Approach to Evolving Heterogeneity for Collective Problem Solving -- Metric Based Evolutionary Algorithms -- Register Based Genetic Programming on FPGA Computing Platforms -- An Extrinsic Function-Level Evolvable Hardware Approach -- Genetic Programming, Ensemble Methods and the Bias/Variance Tradeoff --

Introductory Investigations -- Evolution of a Controller with a Free Variable Using Genetic Programming -- Genetic Programming for Service Creation in Intelligent Networks -- Cartesian Genetic Programming -- Some Probabilistic Modelling Ideas for Boolean Classification in Genetic Programming -- Crossover in Grammatical Evolution: A Smooth Operator? -- Hyperschema Theory for GP with One-Point Crossover, Building Blocks, and Some New Results in GA Theory -- Use of Genetic Programming in the Identification of Rational Model Structures -- Grammatical Retina Description with Enhanced Methods -- Posters -- Intraspecific Evolution of Learning by Genetic Programming -- An Evolutionary Approach to Multiperiod Asset Allocation -- Acquiring Textual Relations Automatically on the Web Using Genetic Programming -- Application of Genetic Programming to Induction of Linear Classification Trees -- A Metric for Genetic Programs and Fitness Sharing -- Using Factorial Experiments to Evaluate the Effect of Genetic Programming Parameters -- Experimental Study of Multipopulation Parallel Genetic Programming -- Genetic Programming and Simulated Annealing: A Hybrid Method to Evolve Decision Trees -- Seeding Genetic Programming Populations -- Distributed Java Bytecode Genetic Programming with Telecom Applications -- Fighting Program Bloat with the Fractal Complexity Measure -- Paragen – The First Results -- Multi-robot Cooperation and Competition with Genetic Programming.

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#### Sommario/riassunto

This volume contains the proceedings of EuroGP 2000, the European Conference on Genetic Programming, held in Edinburgh on the 15th and 16th April 2000. This event was the third in a series which started with the two European workshops: EuroGP'98, held in Paris in April 1998, and EuroGP'99, held in Gothenburg in May 1999. EuroGP 2000 was held in conjunction with EvoWorkshops 2000 (17th April) and ICES 2000 (17th-19th April). Genetic Programming (GP) is a growing branch of Evolutionary Computation in which the structures in the population being evolved are computer programs. GP has been applied successfully to a large number of difficult problems like automatic design, pattern recognition, robotic control, synthesis of neural networks, symbolic regression, music and picture generation, biomedical applications, etc. In recent years, even human-competitive results have been achieved by a number of groups. EuroGP 2000, the first evolutionary computation conference of the new millennium, was the biggest event devoted to genetic programming to be held in Europe in 2000. It was a high quality conference where state-of-the-art work on the theory of GP and applications of GP to real world problems was presented.

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