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| Nota di contenuto | Talks -- A Pipelined Hardware Implementation of Genetic Programming Using FPGAs and Handel-C -- Finding Needles in Haystacks Is Not Hard with Neutrality -- Routine Duplication of Post-2000 Patented Inventions by Means of Genetic Programming -- Explicit Control of Diversity and Effective Variation Distance in Linear Genetic Programming -- Discovery of the Boolean Functions to the Best Density-Classification Rules Using Gene Expression Programming -- Combining Decision Trees and Neural Networks for Drug Discovery -- |

Evolving Fuzzy Decision Trees with Genetic Programming and Clustering -- Linear-Graph GP - A New GP Structure -- Parallel Surface Reconstruction -- Evolving Classifiers to Model the Relationship between Strategy and Corporate Performance Using Grammatical Evolution -- A New View on Symbolic Regression -- Grammatical Evolution Rules: The Mod and the Bucket Rule -- No Coercion and No Prohibition, a Position Independent Encoding Scheme for Evolutionary Algorithms -- The Chorus System -- Exons and Code Growth in Genetic Programming -- Uniform Subtree Mutation -- Maintaining the Diversity of Genetic Programs -- N-Version Genetic Programming via Fault Masking -- An Analysis of Koza's Computational Effort Statistic for Genetic Programming -- Posters -- Genetic Control Applied to Asset Managements -- Evolutionary Algorithm Approach to Bilateral Negotiations -- Allele Diffusion in Linear Genetic Programming and Variable-Length Genetic Algorithms with Subtree Crossover -- Some Experimental Results with Tree Adjunct Grammar Guided Genetic Programming -- A Puzzle to Challenge Genetic Programming -- Transformation of Equational Specification by Means of Genetic Programming -- Automatic Generation of Control Programs for Walking Robots Using Genetic Programming -- An Investigation into the Use of Different Search Strategies with Grammatical Evolution -- Genetic Algorithms Using Grammatical Evolution -- A Brute-Force Approach to Automatic Induction of Machine Code on CISC Architectures -- Deriving Genetic Programming Fitness Properties by Static Analysis -- New Results on Fuzzy Regression by Using Genetic Programming -- Coevolution Produces an Arms Race among Virtual Plants -- Comparing Synchronous and Asynchronous Parallel and Distributed Genetic Programming Models.

Sommario/riassunto

This volume records the proceedings of the 5th European conference on Genetic Programming (EuroGP2002) which took place in Kinsale, Ireland on April 3–5, 2002, continuing an established tradition of yearly meetings among the most prominent researchers on Genetic Programming in Europe and beyond; their proceedings have always been published in the LNCS series by Springer-Verlag. EuroGP began life in Paris in 1998 as an international workshop (April 14–15, LNCS 1391); a second workshop took place in Göteborg in 1999 (May 26–27, LNCS 1598). Its first appearance as a conference was in the year 2000 in Edinburgh (April 15–16, LNCS 1802), followed by last year's conference held at Lake Como (April 18–19, LNCS 2038). Since the beginning, EuroGP has been co-located with a series of specialist workshops on applications of evolutionary algorithms (LNCS 1468, 1596, 1803, and 2037). In keeping with that tradition, the EvoWorkshops were also held in Kinsale this year at the same time (LNCS 2279). Genetic Programming (GP) is a branch of Evolutionary Computation in which populations of computer programs are made to evolve and adapt to solving a particular problem or task by a process that draws its inspiration from Biology and Darwinian evolution. GP is a very versatile technique, which has been applied to a wide range of tasks, as a quick inspection of the 32 papers in these proceedings will easily reveal: economics, robotics, engineering, statistics, pharmacology, electronics, and many others. However, some of the domains in which they have been employed. Although the rate of application of GP to problems is steadily growing, this conference is characterized by its concern with the theoretical foundations of GP: investigation of these issues is attaining an ever increasing depth and maturity.
