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Nota di contenuto	Talks -- Evolving Cellular Automata to Grow Microstructures -- An Innovative Application of a Constrained-Syntax Genetic Programming System to the Problem of Predicting Survival of Patients -- New Factorial Design Theoretic Crossover Operator for Parametrical Problem -- Overfitting or Poor Learning: A Critique of Current Financial Applications of GP -- Evolutionary Design of Objects Using Scene Graphs -- Ensemble Techniques for Parallel Genetic Programming Based Classifiers -- Improving Symbolic Regression with Interval Arithmetic and Linear Scaling -- Evolving Hierarchical and Recursive

Teleo-reactive Programs through Genetic Programming -- Interactive GP for Data Retrieval in Medical Databases -- Parallel Programs Are More Evolvable than Sequential Programs -- Genetic Programming with Meta-search: Searching for a Successful Population within the Classification Domain -- Evolving Finite State Transducers: Some Initial Explorations -- Reducing Population Size while Maintaining Diversity -- How Functional Dependency Adapts to Saliency Hierarchy in the GAUGE System -- More on Computational Effort Statistics for Genetic Programming -- Analysis of a Digit Concatenation Approach to Constant Creation -- Genetic Programming with Boosting for Ambiguities in Regression Problems -- Maximum Homologous Crossover for Linear Genetic Programming -- A Simple but Theoretically-Motivated Method to Control Bloat in Genetic Programming -- Divide and Conquer: Genetic Programming Based on Multiple Branches Encoding -- Feature Construction and Selection Using Genetic Programming and a Genetic Algorithm -- Genetic Programming Applied to Compiler Heuristic Optimization -- Modularity in Genetic Programming -- Decreasing the Number of Evaluations in Evolutionary Algorithms by Using a Meta-model of the Fitness Function -- Posters -- Assembling Strategies in Extrinsic Evolvable Hardware with Bidirectional Incremental Evolution -- Neutral Variations Cause Bloat in Linear GP -- Experimental Design Based Multi-parent Crossover Operator -- An Enhanced Framework for Microprocessor Test-Program Generation -- The Effect of Plagues in Genetic Programming: A Study of Variable-Size Populations -- Multi Niche Parallel GP with a Junk-Code Migration Model -- Tree Adjoining Grammars, Language Bias, and Genetic Programming -- Artificial Immune System Programming for Symbolic Regression -- Grammatical Evolution with Bidirectional Representation -- Introducing a Perl Genetic Programming System - and Can Meta-evolution Solve the Bloat Problem? -- Evolutionary Optimized Mold Temperature Control Strategies Using a Multi-polyline Approach -- Genetic Programming for Attribute Construction in Data Mining -- Sensible Initialisation in Chorus -- An Analysis of Diversity of Constants of Genetic Programming -- Research of a Cellular Automaton Simulating Logic Gates by Evolutionary Algorithms -- From Implementations to a General Concept of Evolvable Machines -- Cooperative Evolution on the Intertwined Spirals Problem -- The Root Causes of Code Growth in Genetic Programming -- Fitness Distance Correlation in Structural Mutation Genetic Programming -- Disease Modeling Using Evolved Discriminate Function -- No Free Lunch, Program Induction and Combinatorial Problems.

Sommario/riassunto

In this volume we present the accepted contributions to the Sixth European Conference on Genetic Programming (EuroGP 2003) which took place at the University of Essex, UK on 14-16 April 2003. EuroGP is now a well-established conference and, without any doubt, the most important international event - voted to Genetic Programming occurring in Europe. The proceedings have all been published by Springer-Verlag in the LNCS series. EuroGP began as an international workshop in Paris, France in 1998 (14-15 April, LNCS 1391). Subsequently the workshop was held in Göteborg, Sweden in 1999 (26-27 May, LNCS 1598) and then EuroGP became an annual conference: in 2000 in Edinburgh, UK (15-16 April, LNCS 1802), in 2001 in Lake Como, Italy (18-19 April, LNCS 2038) and in 2002 in Kinsale, Ireland (3-5 April, LNCS 2278). From the outset, there have always been specialized workshops, co-located with EuroGP, focusing on applications of evolutionary algorithms (LNCS 1468, 1596, 1803, 2037, and 2279). This year was no exception and EvoWorkshops 2003,

incorporating Evo- BIO, EvoCOP, EvoIASP, EvoMUSART, EvoSTIM and EvoROB, took place at the University of Essex (LNCS 2611). Genetic Programming (GP) is that part of Evolutionary Computation which solves particular complex problems or tasks by evolving and adapting populations of computer programs, using Darwinian evolution and Mendelian genetics as a source of inspiration.
