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Genetic Programming

9th European Conference, EuroGP 2006
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Proceedings



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Preface

The present volume contains the contributions for the 9th European Conference on Genetic Programming (EuroGP 2006). The conference took place during April 10-12, 2006 in Budapest, Hungary. EuroGP is a well-established conference and the only one exclusively devoted to genetic programming worldwide. EuroGP began as a workshop in 1998 in Paris, and has been held annually since then, becoming a conference in Edinburgh in 2000. All previous proceedings have been published by Springer in the *Lecture Notes in Computer Science* series. More recently, EuroGP has been co-located with EvoCOP 2006, the 6th European Conference on Evolutionary Computation in Combinatorial Optimization, and the EvoWorkshops, focusing on applications of evolutionary computation, resulting in the largest combined event dedicated to evolutionary computation in Europe.

Genetic programming (GP) is evolutionary computation that solves complex problems or tasks by evolving and adapting a population of computer programs, using Darwinian evolution and Mendelian genetics as its sources of inspiration. The 32 papers included in these proceedings address fundamental and theoretical issues, along with a wide variety of papers dealing with different application areas, such as computer science, engineering, machine learning, Kolmogorov complexity, biology and computational design, showing that GP is a powerful and practical problem-solving paradigm.

A rigorous, double-blind, selection mechanism was applied to 59 submitted papers, that resulted in the acceptance of 21 plenary talks (36% acceptance rate) and 11 poster presentations (54% global acceptance rate for talks and posters). Each paper was reviewed by three members of the international Program Committee, each with post-doctoral experience and selected for expertise in their own field. Assignment was done manually, by trying to match as closely as possible each reviewer's domain of expertise to the topics covered by the paper. The results of this rigorous selection process are reflected in the quality of the contributions published within this volume.

We would like to express our sincere gratitude to the two internationally renowned invited speakers, who gave the keynote talks: Richard J. Terrile, astronomer, Director of the Center for Evolutionary Computation and Automated Design at NASA's Jet Propulsion Laboratory, and Stefan Voß, Chair and Director of the Institute of Information Systems at the Faculty of Hamburg.

The success of this conference results from the input of many people, to whom we would like to express our appreciation. Firstly, we thank the members of the Program Committee for their time and involvement. Their reviews were often very thorough and constructive, giving the authors valuable advice on how to improve their papers for the final publication. The local organizers and Judit Megyery have done an extraordinary job that was a key contribution to the success of this conference. Last but not least, the deep involvement of Jennifer

Willies and the School of Computing, Napier University, in the organization of this event was of paramount importance. Her professionalism and organizational qualities allowed for a smooth-running, enjoyable conference.

We thank the Artpool Art Research Center of Budapest, and especially György Galántai, for offering space and expertise without which the wonderful evolutionary art and music exhibition associated with the conference would not have been possible.

April 2006

Pierre Collet
Marco Tomassini
Marc Ebner
Steven Gustafson
Anikó Ekárt

Organization

EuroGP 2006 was organized by EvoGP, the EvoNet Working Group on Genetic Programming.

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