

Preface

This volume records the proceedings of the fifth European conference on Genetic Programming (EuroGP 2002) 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 finance are but 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.

A rigorous peer-review selection process was applied to the 42 submitted papers. This resulted in 18 plenary talks (little more than 40% of those submitted) and 14 research posters. Almost all submitted papers were reviewed by four members of the International Program Committee, the remaining ones receiving at least two reviews. The Program Committee was carefully selected for their knowledge and expertise, and, as far as possible, papers were matched with the reviewer's particular interests and special expertise. The results of this process are seen here in the high quality of papers published within this volume.

Of the 32 published papers, almost 75% have a European provenance, confirming the eminently European character of this conference, although the presence of Northern American researchers is significant, with almost 20%, whereas the rest of the world is sporadically represented by two papers.

The success of this conference is to be credited to the contribution of many people. In the first place, we would like to thank the members of the Program Committee for their diligence, patience, and commitment to the task of providing high quality reviews. We would also like to thank EvoNet, the Network of

Excellence in Evolutionary Computing, for their support, in particular, Jennifer Willies and Chris Osborne for their help with all organizational and logistical aspects. Finally, we would like to thank the members of EvoGP, the EvoNet working group on Genetic Programming.

April 2002

James A. Foster,
Evelyne Lutton,
Julian Miller,
Conor Ryan,
Andrea G.B. Tettamanzi

Organization

EuroGP 2002 was organized by EvoGP, the EvoNet Working Group on Genetic Programming.

Organizing Committee

Program co-chairs: James A. Foster (University of Idaho, USA)
Evelyne Lutton (INRIA, France)
Publicity chair: Julian Miller (University of Birmingham, UK)
Local chair: Conor Ryan (University of Limerick, Ireland)
Publication chair: Andrea G.B. Tettamanzi (University of Milan, Italy)

Program Committee

Wolfgang Banzhaf, University of Dortmund, Germany
Forrest Bennett III, FX Palo Alto Laboratory, USA
Shu-Heng Chen, National Chengchi University, Taiwan
Marco Dorigo, Free University of Brussels, Belgium
Terry Fogarty, South Bank University, UK
James A. Foster, University of Idaho, USA
Hitoshi Iba, University of Tokyo, Japan
Christian Jacob, University of Calgary, Canada
Maarten Keijzer, Danish Hydraulics Insitute, Denmark
Ibrahim Kuscu, University of Surrey, UK
William B. Langdon, University College London, UK
Sean Luke, University of Maryland, USA
Evelyne Lutton, INRIA, France
Nic McPhee, University of Minnesota, USA
Jean-Arcady Meyer, Université Pierre et Marie Curie, France
Julian Miller, University of Birmingham, UK
Peter Nordin, Chalmers University of Technology, Sweden
Simon Perkins, Los Alamos National Laboratories, USA
Riccardo Poli, University of Birmingham, UK
João C. F. Pujol, Centro de Desenvolvimento da Energia Nuclea, Brazil
Kazuhiro Saitou, University of Michigan, USA
Jonathan Rowe, University of Birmingham, UK
Peter Ross, Napier University, UK
Conor Ryan, University of Limerick, Ireland
Marc Schoenauer, Ecole Polytechnique, France
Moshe Sipper, Ben-Gurion University, Israel

Michele Sebag, Ecole Polytechnique, France

Terry Soule, St Cloud State University, Minnesota, USA

Andrea G. B. Tettamanzi, University of Milan, Italy

Adrian Thompson, University of Sussex, UK

Marco Tomassini, Université de Lausanne, Switzerland

Hans-Michael Voigt, Center for Applied Computer Science, Germany

Peter A. Whigham, University of Otago, New Zealand

Xin Yao, University of Birmingham, UK

Tina Yu, Chevron Information Technology Company, USA

Sponsoring Institutions

EvoNet: The Network of Excellence in Evolutionary Computing.