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# Evolutionary and Biologically Inspired Music, Sound, Art and Design

First International Conference, EvoMUSART 2012
Málaga, Spain, April 11-13, 2012
Proceedings

Springer

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# Preface

EvoMUSART 2012 was the First International Conference and the 10th European event on Biologically Inspired Music, Sound, Art and Design. It convened during April 11–13, 2012, in Málaga, Spain.

The use of biologically inspired techniques for the development of artistic systems is an exciting and significant area of research. There is a growing interest in the application of these techniques in fields such as: visual art and music generation, analysis, and interpretation; sound synthesis; architecture; video; poetry; design; and other creative tasks.

The main goal of evoMUSART 2012 was to bring together researchers who use biologically inspired computer techniques for artistic tasks, providing the opportunity to promote, present, and discuss ongoing work in the area.

The first evoMUSART edition took place in 2003 in Essex, UK, as one of the Applications of Evolutionary Computing workshops. The event had 13 submissions and 11 Program Committee members.

The main motivation of this event was to promote the growth of this research area by allowing researchers and artists to come together and present their works. Demonstrating that it was possible to develop high-quality scientific research in creative domains, following the same scientific standards as other areas, was an additional goal.

Since then, evoMUSART has grown steadily in terms of number of submissions, Program Committee members, and quality of submissions, asserting itself as the only yearly event in the field and as its main forum.

In these 10 years, the area has grown significantly. This can be attested by the proliferation of workshops and special tracks devoted to evolutionary art and music in conferences such as the Genetic Evolutionary Computation Conference and the IEEE Congress on Evolutionary Computation, and by the publication of several books on these topics, for example, *The Art of Evolutionary Evolution* and *Evolutionary Computer Music*, both published by Springer.

As a consequence of the increase of interest in the area and of the success of previous events, in 2012 evoMUSART became an evo* conference. Furthermore, celebrating its 10th anniversary two special issues on evolutionary art and music will be published by the *Genetic Programming and Evolvable Machines* (GPEM) journal and by the *International Journal of Arts and Technology* (IJART).

The success of evoMUSART would not have been possible without authors submitting their work, members of the Program Committees dedicating energy in reviewing the papers, and an audience. All these people deserve our recognition. We express our gratitude toward Colin G. Johnson, one of the founders of evoMUSART and Co-chair in 2003 and 2004, Jon McCormack, Co-chair in 2008 and 2009 and Gary Greenfield, Co-chair in 2010 and 2011, for their enthusiasm, support, and hard work. We would also like to acknowledge the organizers of

the art exhibitions associated with evoMUSART – Paulo Urbano, Anna Esparcia, Tim Blackwell, and Janis Jefferies – and the local Chairs who created the conditions for these exhibitions to take place, Anikó Ekárt and Anna Esparcia.

EvoMUSART 2012 received 43 submissions from 24 different countries across four continents. The papers underwent a rigorous double-blind peer-review process, each being reviewed by at least three members of the international Program Committee composed of 78 members from 20 countries on four different continents. The selection process resulted in this volume, with 15 papers accepted for oral presentation (34.9% acceptance rate) and 5 for poster presentation (46.5% global acceptance rate for talks and posters combined). The wide range of topics in this volume reflects the current state of research in the field, including theory, generation, computer-aided creativity, computational creativity, automation, and others.

EvoMUSART 2012 was part of the evo* 2012 event, which included four additional conferences: evoGP 2012, evoCOP 2012, evoBIO 2012, and evoApplications 2012. Many people helped to make this event a success.

Many thanks to the local organizer Carlos Cotta, Associate Professor of the University of Málaga (Spain), and to the following local sponsors: the University of Málaga for its support of evo*, and in particular to the School of Computer Science and the School of Telecommunications and their respective Directors Professor José M. Troya and Professor Antonio Puerta, and also to the Málaga Convention Bureau.

Also a big thanks to Pedro Miguel Cruz assisting Penousal Machado on creating and maintaining the official evo* 2012 website and Marc Schoenauer from INRIA in France for providing continued assistance with the MyReview conference management system.

Last but certainly not least, we especially want to express a heartfelt thanks to Jennifer Willies and the Centre for Emergent Computing at Edinburgh Napier University. Ever since its inaugural meeting in 1998 this event has relied on her dedicated work and continued involvement and we do not exaggerate when we state that without her, evo* could not have achieved its current status.

April 2012

Penousal Machado
Juan Romero
Adrian Carballal

# Organization

EvoMUSART 2012 was part of evo* 2012, Europe's premier co-located events in the field of evolutionary computing, which also included the conferences euroGP 2012, evoCOP 2012, evoBIO 2012, and evoApplications 2012.

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