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Artificial Intelligence in Music, Sound, Art and Design

9th International Conference, EvoMUSART 2020 Held as Part of EvoStar 2020 Seville, Spain, April 15–17, 2020 Proceedings



Editors
Juan Romero
University of A Coruña
A Coruña, Spain

Tiago Martins D University of Coimbra Coimbra, Portugal Anikó Ekárt Aston University Birmingham, UK

João Correia D University of Coimbra Coimbra, Portugal

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Preface

The 9th International Conference on Artificial Intelligence in Music, Sound, Art and Design (EvoMUSART 2020) took place during April 15–17, 2020, in Seville, Spain, as part of EvoStar, the leading European event on bio–inspired computation.

Following the success of previous events and the importance of the field of computational intelligence, specifically, evolutionary and biologically inspired (artificial neural network, swarm, alife) music, sound, art, and design, EvoMUSART has become an EvoStar conference with independent proceedings since 2012.

Although the use of artificial intelligence (AI) for artistic purposes can be traced back to the 1970s, the use of AI for the development of artistic systems is a recent, 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 2020 was to bring together researchers who are using AI techniques for artistic tasks, providing the opportunity to promote, present, and discuss ongoing work in the area. As always, the atmosphere was fun, friendly, and constructive.

EvoMUSART has grown steadily since its first edition in 2003 in Essex, UK, when it was one of the Applications of Evolutionary Computing workshops. Since 2012 it has been a full conference as part of the EvoStar co-located events.

EvoMUSART 2020 received 31 submissions. The peer-review process was rigorous and double-blind. The international Program Committee, listed below, was composed of 60 members from 19 countries. EvoMUSART continued to provide useful feedback to authors: among the papers sent for full review, there were on average three reviews per paper. The number of accepted papers was 12 long talks (38.7% acceptance rate) and 3 posters accompanied by short talks, meaning an overall acceptance rate of 48.39%.

As always, the EvoMUSART proceedings cover a wide range of topics and application areas, including generative approaches to music and visual art, deep learning, and architecture. This volume of proceedings collects the accepted papers.

As in previous years, the standard of submissions was high, and good quality papers had to be rejected. We thank all authors for submitting their work, including those whose work was not accepted for presentation on this occasion.

The work of reviewing is done voluntarily and generally with little official recognition from the institutions where reviewers are employed. Nevertheless, professional reviewing is essential to a healthy conference. Therefore we particularly thank the members of the Program Committee for their hard work and professionalism in providing constructive and fair reviews.

EvoMUSART 2020 was part of the EvoStar 2020 event, which included three additional conferences: EuroGP 2020, EvoCOP 2020, and EvoApplications 2020. Many people helped to make this event a success.

We thank the invited keynote speakers, José Antonio Lozano (University of the Basque Country, Spain) and Roberto Serra (University of Modena and Reggio Emilia, Italy) for their inspirational talks.

We thank SPECIES, the Society for the Promotion of Evolutionary Computation in Europe and its Surroundings, for its sponsorship.

We thank the local organizing team lead by Francisco Fernández de Vega (University of Extremadura, Spain) and Federico Divina (University Pablo de Olavide, Spain), and also University Pablo de Olavide in Sevilla, Spain, for supporting the local organization.

We thank João Correia (University of Coimbra, Portugal) for the EvoStar publicity, website, and social media service; and also Sérgio Rebelo (University of Coimbra, Portugal) for his important graphic design work.

Finally, and above all, we would like to express our most heartfelt thanks to Anna I Esparcia-Alcázar (Universitat Politècnica de València, Spain), for her dedicated work and coordination of the event. Without her work, and the work of Jennifer Willies in the past years, EvoStar would not enjoy its current level of success as the leading European event on bio–inspired computation.

April 2020

Juan Romero Anikó Ekárt Tiago Martins João Correia

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