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# Evolutionary Multi-Criterion Optimization

11th International Conference, EMO 2021  
Shenzhen, China, March 28–31, 2021  
Proceedings


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# Preface

The International Conference on Evolutionary Multi-Criterion Optimization (EMO) is a well-established, widely recognized, bi-annual international conference series devoted to both theoretical foundations and practical applications of the theme area: evolutionary multi-criterion optimization. The first EMO conference was born in Zürich (Switzerland) in 2001. Afterwards, it took place on different continents every two years, i.e., in Faro (Portugal), Guanajuato (Mexico), Matsushima (Japan), Nantes (France), Ouro Preto (Brazil), Sheffield (UK), Guimarães (Portugal) and East Lansing (USA).

The 11th International Conference on Evolutionary Multi-Criterion Optimization (EMO 2021) took place in Shenzhen, China, during March 28–31, 2021. It has been 14 years since EMO came to Asia and it is the first time that EMO has been located in China. Nowadays, China has the largest number of students, researchers and practitioners working at EMO. Shenzhen occupies an important position in China's high-tech industries, financial services, foreign trade exports, marine transportation, creative culture and other aspects. It shoulders the important mission of experiments and demonstration in China's institutional innovation and opening-up. Born in Shenzhen, SUSTech is an innovative university and has been recognized as a trailblazer in the Chinese higher education system. It aims to become an international high-level research university rapidly. SUSTech has the main disciplines of science, engineering and medicine, concurrently, some disciplines in the humanities and social sciences, all of which make it the perfect place to host EMO 2021 in its modernized building.

EMO 2021 received 120 submissions and a total of 61 papers were accepted for presentation and publication in this volume (acceptance rate around 51%), all of whose authors were invited to give an oral presentation. Given the COVID-19 pandemic, this EMO was special and maybe unique in the conference's history in that it took place in a mixed onsite and online format.

The conference profited from the presentations of four keynote speakers from both academia and high-profile industry: Akira Oyama (JAXA and University of Tokyo, Japan), Tapabrata Ray (University of New South Wales Canberra, Australia), Lixin Tang (Northeastern University, China) and Mark Harman (FACEBOOK and University of College London, UK). In addition, two tutorials were delivered about past, current and future developments of EMO and multi-criteria decision making from two pioneers in the field: Kalyanmoy Deb (Michigan State University, USA) and Kaisa Miettinen (University of Jyväskylä, Finland).

We express our gratitude to all the authors, reviewers, and organizers who made the conference a success. We are grateful to all the authors for submitting their best and latest work, to all the reviewers for the generous way they spent their time and provided their valuable expertise in preparing their reviews, to the program and publication chairs for their hard work in compiling an ambitious scientific program, to the keynote and tutorial speakers for delivering impressive talks, to the competition chairs for

creating the framework for the HUAWEI Logistics Challenge, to the publication and publicity chairs for taking care of the EMO proceedings and website, and to the local organizers who helped to make EMO 2021 happen. Last but not least, we would like take this opportunity to appreciate the generous support from HUAWEI Noah's Ark Lab for sponsoring the Logistics Challenge.

March 2021

Hisao Ishibuchi  
Qingfu Zhang

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