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Evolutionary Multi-Criterion Optimization

8th International Conference, EMO 2015
Guimarães, Portugal, March 29 – April 1, 2015
Proceedings, Part II

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ISSN 0302-9743
Lecture Notes in Computer Science
ISBN 978-3-319-15891-4
DOI 10.1007/978-3-319-15892-1

ISSN 1611-3349 (electronic)
ISBN 978-3-319-15892-1 (eBook)

Library of Congress Control Number: 2015932656

LNCS Sublibrary: SL1 – Theoretical Computer Science and General Issues

Springer Cham Heidelberg New York Dordrecht London

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Printed on acid-free paper

Springer International Publishing AG Switzerland is part of Springer Science+Business Media
(www.springer.com)

Preface

EMO is a biennial international conference series devoted to the theory and practice of evolutionary multi-criterion optimization.

The first EMO took place in 2001 in Zürich (Switzerland), with later conferences taking place in Faro (Portugal) in 2003, Guanajuato (Mexico) in 2005, Matsushima-Sendai (Japan) in 2007, Nantes (France) in 2009, Ouro Preto (Brazil) in 2011, and Sheffield (UK) in 2013. The proceedings of this series of conferences have been published as a volume in Lecture Notes in Computer Science (LNCS), respectively, in volumes 1993, 2632, 3410, 4403, 5467, 6576, and 7811.

The 8th International Conference on Evolutionary Multi-Criterion Optimization (EMO 2015) took place in Guimarães, Portugal, from March 29 to April 1, 2015. The event was organized by the University of Minho. Following the success of the two previous EMO conferences, a special track was offered aiming to foster further cooperation between the EMO and the multiple criteria decision making (MCDM). Also, a special track on real-world applications (RWA) was endorsed.

EMO 2015 received 90 full-length papers, which were submitted to a rigorous single-blind peer-review process, with a minimum of three referees per paper. Following this process, a total of 68 papers were accepted for presentation and publication in this volume, from which 40 were chosen for oral and 24 for poster presentation. The selected papers were distributed through the different tracks as follows: 46 main track, 6 MCDM track, and 16 RWA track.

The conference benefitted from the presentations of plenary speakers on research subjects fundamental to the EMO field: Thomas Stützle, from the IRIDIA laboratory of Université libre de Bruxelles (ULB), Belgium; Murat Köksalan, from the Industrial Engineering Department of Middle East Technical University, Ankara, Turkey; Luís Santos, from the University of São Paulo and Embraer, Brazil; Carlos Fonseca, from the University of Coimbra, Portugal.

From the beginning, this conference provided significant advances in relevant subjects of evolutionary multi-criteria optimization. This event aimed to continue these type of developments, being the papers presented focused on: theoretical aspects, algorithms development, many-objectives optimization, robustness and optimization under uncertainty, performance indicators, multiple criteria decision making, and real-world applications.

Finally, we would express our gratitude to the plenary speakers for accepting our invitation, to all the authors who submitted their work, to the members of the International Program Committee for their hard work, to the members of the Organizing Committee, particularly Lino Costa, and to the Track Chairs Kaisa Miettinen, Salvatore Greco, and

Robin Purshouse. We would like to acknowledge the support of the School of Engineering of the University of Minho. We would also like to thank Alfred Hofmann and Anna Kramer at Springer for their support in publishing these proceedings.

March 2015

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