Preface

The series of MFCS symposia has a long and well-established tradition of encouraging high-quality research into all branches of theoretical computer science. Its broad scope provides an opportunity to bring together researchers who do not usually meet at specialized conferences. The first symposium was held in 1972. Until 2012 MFCS symposia were organized on a rotating basis in Poland, the Czech Republic, and Slovakia. The 2013 edition took place in Austria, the 2014 edition in Hungary, while in 2015 MFCS was organized for the first time in Italy.

The 40th International Symposium on Mathematical Foundations of Computer Science (MFCS 2015) was held in Milan during August 24–28, 2015. The scientific program of the symposium consisted of five invited talks and 81 contributed papers.

To celebrate the 40th edition of the conference, a special invited talk was given by:

– Zoltán Ésik (University of Szeged, Hungary)

This talk was sponsored by the European Association of Theoretical Computer Science (EATCS). The other invited talks were given by:

– Anindya Banerjee (IMDEA Software Institute, Spain)
– Paolo Boldi (University of Milan, Italy)
– Martin Kutrib (University of Giessen, Germany)
– Yishay Mansour (Microsoft Research, Hertzelia and Tel Aviv University)

We are grateful to all invited speakers for accepting our invitation and for their excellent presentations at the symposium.

The 81 contributed papers were selected by the Program Committee (PC) out of a total of 201 submissions. All submitted papers were peer reviewed and evaluated on the basis of originality, quality, significance, and presentation. To support the selection process, approximatively 600 reviews were written by PC members with the help of external experts.

As is the MFCS tradition, a Best Paper Award and a Best Student Paper Award sponsored by EATCS were assigned. The PC decided to assign these awards to the following papers:

– "Strong Inapproximability of the Shortest Reset Word" by Paweł Gawrychowski and Damian Straszak (Best Paper Award)
– "Maximum Minimal Vertex Cover Parameterized by Vertex Cover" by Meirav Zehavi (Best Student Paper Award)

We thank all authors who submitted their work for consideration to MFCS 2015. We wish to thank all PC members and external reviewers for their competent and timely handling of the submissions. The success of the scientific program is due to their hard work. During the selection process and for preparing these proceedings, we used the EasyChair conference management system, which provided excellent support.

Owing to the large number of accepted papers, the proceedings of the conference were divided into two volumes on a thematical basis: *Logic, Semantics, Automata and Theory of Programming* (Vol. I) and *Algorithms, Complexity and Games* (Vol. II).

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June 2015   Giuseppe F. Italiano
                                                                Giovanni Pighizzini
                                                                    Don Sannella