

# Preface

The international conferences on Integral Methods in Science and Engineering (IMSE), started in 1985, are attended by researchers in all types of theoretical and applied fields, whose output is characterized by the use of a wide variety of integration techniques. Such methods are very important to practitioners as they boast, among other advantages, a high degree of efficiency, elegance, and generality.

The first 13 IMSE conferences took place in venues all over the world:

1985, 1990: University of Texas at Arlington, USA

1993: Tohoku University, Sendai, Japan

1996: University of Oulu, Finland

1998: Michigan Technological University, Houghton, MI, USA

2000: Banff, AB, Canada (organized by the University of Alberta, Edmonton)

2002: University of Saint-Étienne, France

2004: University of Central Florida, Orlando, FL, USA

2006: Niagara Falls, ON, Canada (organized by the University of Waterloo)

2008: University of Cantabria, Santander, Spain

2010: University of Brighton, UK

2012: Bento Gonçalves, Brazil (organized by the Federal University of Rio Grande do Sul)

2014: Karlsruhe Institute of Technology, Germany

The 2016 event, the fourteenth in the series, was hosted by the University of Padova, Italy, July 25–29, and gathered participants from 26 countries on five continents, enhancing the recognition of the IMSE conferences as an established international forum where scientists and engineers have the opportunity to interact in a direct exchange of promising novel ideas and cutting-edge methodologies.

The Organizing Committee of the conference was comprised of

Massimo Lanza de Cristoforis (University of Padova), chairman,

Matteo Dalla Riva (The University of Tulsa),

Mirela Kohr (Babes-Bolyai University of Cluj-Napoca),

Pier Domenico Lamberti (University of Padova),

Flavia Lanzara (La Sapienza University of Rome), and  
Paolo Musolino (Aberystwyth University),

assisted by Davide Buoso, Gaspare Da Fies, Francesco Ferraresso, Paolo Luzzini,  
Riccardo Molinarolo, Luigi Provenzano, and Roman Pukhtaievych.

IMSE 2016 maintained the tradition of high standards set at the previous meetings in the series, which was made possible by the partial financial support received from the following:

The International Union of Pure and Applied Physics (IUPAP)

Gruppo Nazionale per l'Analisi Matematica, la Probabilità e le loro Applicazioni (GNAMPA), INDAM

The International Society for Analysis, Its Applications and Computation (ISAAC)

The Department of Mathematics, University of Padova

The participants and the Organizing Committee wish to thank all these agencies for their contribution to the unqualified success of the conference.

IMSE 2016 included four minisymposia:

Asymptotic Analysis: Homogenization and Thin Structures; organizer: M.E. Pérez (University of Cantabria)

Mathematical Modeling of Bridges; organizers: E. Berchio (Polytechnic University of Torino) and A. Ferrero (University of Eastern Piedmont)

Wave Phenomena; organizer: W. Dörfler (Karlsruhe Institute of Technology)

Wiener-Hopf Techniques and Their Applications; organizers: G. Mishuris (Aberystwyth University), S. Rogosin (University of Belarus), and M. Dubatovskaya (University of Belarus)

The next IMSE conference will be held at the University of Brighton, UK, in July 2018. Further details will be posted in due course on the conference web site [blogs.brighton.ac.uk/imse2018](https://blogs.brighton.ac.uk/imse2018).

The peer-reviewed chapters of these two volumes, arranged alphabetically by first author's name, are based on 58 papers from among those presented in Padova. The editors would like to thank the reviewers for their valuable help and the staff at Birkhäuser-New York for their courteous and professional handling of the publication process.

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Christian Constanda

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