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Ivan Dimov · István Faragó  
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# Numerical Analysis and Its Applications

6th International Conference, NAA 2016  
Lozenetz, Bulgaria, June 15–22, 2016  
Revised Selected Papers

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ISSN 0302-9743

ISSN 1611-3349 (electronic)

Lecture Notes in Computer Science

ISBN 978-3-319-57098-3

ISBN 978-3-319-57099-0 (eBook)

DOI 10.1007/978-3-319-57099-0

Library of Congress Control Number: 2017937150

LNCS Sublibrary: SL1 – Theoretical Computer Science and General Issues

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Printed on acid-free paper

This Springer imprint is published by Springer Nature

The registered company is Springer International Publishing AG

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

## Preface

This volume of the 6th International Conference on Numerical Analysis and Applications was held at the hotel Sunset Beach, Lozenetz, Bulgaria, June 15–22, 2016. The conference was organized by the Division of Numerical Analysis and Statistics, University of Rouse Angel Kanchev, Bulgaria, in cooperation with the Department of Parallel Algorithms, Institute of Information and Communication Technologies, Bulgarian Academy of Sciences, Sofia.

The conference continued the tradition of the five previous meetings (1996, 2000, 2004 in Ruse and 2008, 2012 in Lozenetz) as a forum where scientists from leading research groups from the “East” and “West” are provided with the opportunity to meet and exchange ideas and establish research cooperations. More than 120 scientists from all over the world participated in the conference.

The main tracks comprised: Numerical Modeling; Numerical Stochastics; Numerical Approximation and Computational Geometry; Numerical Linear Algebra and Numerical Solution of Transcendental Equations; Numerical Methods for Differential Equations; High-Performance Scientific Computing;

The special topics covered at the conference were: Novel methods in computational finance based on the FP7 Marie Curie Action, project Multi-ITN STRIKE—Novel Methods in Computational Finance (grant agreement number 304617); and advanced numerical and applied studies of fractional differential equations.

A wide range of problems concerning recent achievements in numerical analysis and its applications in physics, chemistry, engineering, and economics were discussed. An extensive exchange of ideas between scientists who develop and study numerical methods and researchers who use them to solve real-life problems took place during the conference.

The keynote lectures reviewed some of the advanced achievements in the field of numerical methods and their efficient applications. The conference lectures were presented by university researchers and industry engineers including applied mathematicians as well as numerical analysis and computer experts.

The success of the conference and the present volume are due to the joint efforts of the Scientific Committee, to the local organizers, and to many colleagues from various institutions and organizations. We thank to our colleagues for their help in the organization of this conference. We especially thank to M. Koleva for her help in the preparation of this volume. We are also grateful to the organizers of the minisymposia.

The 7th International Conference on Numerical Analysis and Its Applications will be held in June 2020.

January 2017

Ivan Dimov  
István Faragó  
Lubin Vulkov

# Organization

NAA 2016 was organized by the Division of Numerical Analysis and Statistics, University of Ruse Angel Kanchev, Bulgaria, in cooperation with the Department of Parallel Algorithms, Institute of Information and Communication Technologies, Bulgarian Academy of Sciences, Sofia.

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