

Preface

The International Conference on Finite Difference Methods is a traditional forum for scientists from all over the world, providing opportunities to share ideas and establish fruitful cooperation. The papers in this volume were presented at the 6th International Conference on Finite Difference Methods: Theory and Applications. FDM: T&A was held in Lozenetz, Bulgaria, in June 2014. The conference was organized and sponsored by Rousse University. This conference continued the tradition of four previous meetings: 1997 in Rousse (Bulgaria), organized by the Division of Numerical Analysis and Statistics; 1998 in Minsk (Belarus), organized by the Institute of Mathematics, Belarus Academy of Science; 2000 in Palanga, (Lithuania), organized by the Institute of Mathematics and Informatics (Vilnius); and 2006 and 2010 in Lozenetz (Bulgaria), organized by the Division of Numerical Analysis and Statistics, Rousse University.

The purpose of the first three conferences (held in Bulgaria, Belarus, and Lithuania) was to bring together scientists from the East and West to exchange ideas and establish research cooperation. We have observed that the contacts among scientists have become more regular and we are proud of our contribution in this respect.

The general topic for FDM: T&A 2014 was finite difference and combined finite difference methods as well as finite element methods and their various applications in physics, chemistry, engineering, biology, and finance. A number of modern numerical techniques were discussed and presented during the conference: splitting techniques, Green's function method, multigrid methods, and immersed interface method, among others.

Some contemporary topics were the focus of the following minisymposia:

(1) Financial Mathematics; (2) Asymptotic-Numerical Treatment of Problems with Boundary and Internal Layer; (3) Numerical Methods for Fractional Differential Equations; (4) Computational Methods in Geophysics.

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

The 7th International FDM:T&A Conference will be organized in June 2018.

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