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# Numerical Analysis and Its Applications

5th International Conference, NAA 2012  
Lozenetz, Bulgaria, June 15-20, 2012  
Revised Selected Papers

 Springer

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# Preface

The 5th International Conference Numerical Analysis and Applications was held in the hotel ‘Ambelitz’, Lozenetz, Bulgaria, June 15–20, 2012. The conference was organized by the Department of Applied Mathematics and Statistics at the University of Ruse in cooperation with Union of Mathematicians of Bulgaria, section Ruse. The conference continued the tradition of 4 previous ones (1996, 2000, 2004 and 2008) as a forum, where scientists from leading research groups from the “East” and “West” were provided with the opportunity to meet and exchange ideas and establish research cooperation. More than 100 scientists from all over the world participated the conference. A wide range of problems concerning recent achievement on numerical analysis and its applications in physics, chemistry, engineering, and economics were discussed. The key lectures reviewed some of the advanced achievements in the field of numerical methods and their applications. Four special sessions were organized:

- G. Shishkin, Computational Methods for Boundary and Interior Layers;
- A. Smirnov, Numerical Modeling of Shell-like Structures and their Applications;
- N. Nefedov, Asymptotic Approximation Methods for Non-local Reaction-Diffusion-Advection Problems;
- N. Yamanaka, Verified Numerical Computations.

The conference was opened by the lecture of Prof. M.J. Gander: From Euler, Ritz and Galerkin to Modern Computing.

The success of the conference and the present volume in particular are the outcome of the joint effort of many colleagues from various institutions and organizations. First, we are indebted to all members of the Scientific Committee for their valuable contribution forming the scientific level of the conference, as well as their help in reviewing contributed papers. We thank the Local Organizing Committee and especially M. Koleva for the help in putting together the book.

The 6th International Conference on Numerical Analysis and Its Applications will be held in June 2016.

June 2013

Ivan Dimov  
István Faragó  
Lubin Vulkov

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