PREFACE

The papers in this issue were presented at FDM: TA’2010, the Fifth International Conference on Finite Difference Methods: Theory and Applications (FDM: TA), held in Lozenetz, Bulgaria, August 26-29. The conference was organized and sponsored by the Rousse University.

This conference continued the tradition of four previous meetings: 1997 in Rousse (Bulgaria) organized by Division of Numerical Analysis and Statistics; 1998 in Minsk (Belarus), organized by Institute of Mathematics, Belarus Academy of Science; 2000 in Palanga (Lithunia), organized by Institute of Mathematics and Informatics (Vilnus) and 2006 in Lozenetz (Bulgaria), organized by Division of Numerical Analysis and Statistics, Rousse University.

The first 3 conferences (held in Bulgaria, Belarus and Lithuania) were devised as forums, where scientists from leading research groups from the ”East” and ”West” have been provided with the opportunity to meet and exchange ideas and establish research cooperation. Nowadays, in this global world contacts among scientists have become more regular and easier so that we can say with satisfaction that we have achieved the goals of our first conferences.

The general theme for FDM: TA’2010 was finite difference methods and their various applications in physics, chemistry, engineering, biology and finance. Many modern and new numerical techniques are discussed and presented in the conference: splitting techniques, Green’s function method, multigrid methods, immersed interface method, etc.

This special issue of the journal contains contributions to the processing of the conference. All contributions have gone through a standard peer review process of the journal.

Acknowledgments We would like to thank Professor Yau-Shu Wong, Editor in Chief of the International Journal of Numerical Analysis and Modeling, Series B for providing this venue for the Conference Proceedings.

June 2011
Istvan Farago
Zhilin Li
Lubin Vulkov