

Preface

This monograph is devoted to the selected topics of the modern branch of researches called experimental mathematics. Inside we can find papers from different fields, like applied mathematics, computational mathematics or discrete mathematics. They were joined by a common thread of the research experiment. The experiment can be seen in calculations and numerical simulations – and we emphasize that it guarantees a research success almost every time. This approach is successful thanks to both the affordability and computing capabilities of computer hardware. Practically we are witnesses of how those possibilities influence the creativity of many mathematicians who are using mathematical experiments in their researches.

The authors of papers in this monograph are mathematicians on different levels of the scientific experience. Some of them are very young, which is an important asset of this book. The passion of these young people often propelled the other authors and these were great moments experienced by many of us.

The monograph is addressed to a wide audience and we hope that it will remain in our Readers' memories as an original work, full of passion and intriguing results.

PS. Let us add that the papers presented here just announce the current or permanent research subject matters of many authors. Moreover, in few cases, the coordinated cooperation between the authors and the experts from various fields resulted in undertaking some further research steps to develop the topics presented here (such situation happened, for example, in case of the authors of paper concerning the computer tomography).

