# APPLIED MATHEMATICS AND COMPUTATION





Department of Mathematics, University of Zagreb, 2001

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# **Applied Mathematics and Computation**

Proceedings of the Conference Applied Mathematics and Computation held in Dubrovnik, Croatia, September 13–18, 1999

edited by

M. Rogina, V. Hari, N. Limić and Z. Tutek



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#### Preface

During the week of September 13–18, 1999 the First Conference on Applied Mathematics and Computation was held in Dubrovnik, Croatia. It was organized by the Department of Mathematics, University of Zagreb, Faculty of Electrical Engineering, University of Osijek, Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture, University of Split and Technical Faculty, University of Rijeka.

The organizing committee members were M. Rogina, chairman (Zagreb), R. Scitovski (Osijek), Z. Drmač (Zagreb), E. Marušić–Paloka (Zagreb), I. Slapničar (Split), S. Vuković (Rijeka), M. Marušić (Zagreb), S. Singer (Zagreb) and N. Limić (Zagreb).

The aim of the conference was the exchange of ideas, methods and problems between various disciplines of applied mathematics, and non-mathematicians using mathematics as a tool were encouraged to take part in the conference. About 60 mathematicians attended the conference, and the program included 3 one-hour plenary presentations and 28 half-our research talks. Although local in nature, the conference was attended by mathematicians from France, Great Britain, Germany and F.Y.R. Macedonia. We sincerely hope that a conference like this one will be held every two years, and that this one is only the first one in the sequence.

The proceedings of this conference are divided in three parts: the first part consists of somewhat longer articles, which reflect the talks given in plenary lectures by invited speakers. The second one contains research work in various fields in applied mathematics, while the last one mainly includes application oriented contributions which the scientific committee and the reviewers found to be of interest to mathematics, or are in itself interesting and susceptible to the mathematical analysis.

We would like to thank the following institutions for their financial and technical support and their contribution to the success of this conference: Ministry of science and technology of the Republic of Croatia, Department of Mathematics, University of Zagreb, Croatian Mathematical Society and CV Systems, Ltd.

We would like to thank Sanja Singer for preparing the necessary TEX files, and last but not least, my wife Vesna Rogina for checking English and assisting with the preparation of the proceedings.

Zagreb, Croatia, April 5, 2001

Mladen Rogina

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