MATHEMATICAL PROBLEMS IN COMPUTATION THEORY

Editors of the Volume

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PREFACE

These are the proceedings of the 26th semester *Mathematical Problems in Computation Theory* held at the Banach International Mathematical Center in Warsaw from September 16th till December 14th 1985. The main purpose of the Semester was to create the possibility of wide contact between specialists from both East and West as well as to establish a forum for the presentation of new results in main areas of theoretical Computer Science. The Semester should also be considered as an excellent opportunity for young mathematicians, principally from socialist countries, to improve their qualifications and to stimulate their interest in Computation Theory.

About 180 specialists came to the Banach Center to attend 300 lectures on various topics. We were very happy to welcome participants from 17 countries; in particular we appreciated very much the presence of large groups from Soviet Union, USA, German Democratic Republic, Czechoslovakia and Federal Republic of Germany.

Most lectures could be classified within the following areas:

– Models in computation theory and theory of programs (determinism, nondeterminism, concurrency);

– Logic, universal algebra, combinatorics and topology in computation theory;

– Problems of computational complexity;

– Design and analysis of integrated circuits including VLSI.

This volume contains extended versions of many of the lectures and a few papers of invited lecturers who could not be present at the Banach Center. It should be stressed that some of the results published here are consequences of a joint research work of the participants during the Semester.

We thank all members of the Organizing Committee and in particular Professor S. V. Jablonskii, Professor L. Budach and Professor J. Becvar. We are grateful to Professor Cz. Olech for his help and friendly encouragement in solving all doubts and difficulties arising during the Semester.

We take the opportunity to express our gratitude to all speakers and participants for their interest and valuable contribution during the Semester. The success of the Semester is due to all of them.

We also acknowledge the excellent administrative work of Miss G. Pieścik and Miss E. Dąbrowska.

Grażyna Mirkowska
Helena Rasiowa

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