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Fundamentals of Computation Theory

12th International Symposium, FCT'99
Iași, Romania, August 30 - September 3, 1999
Proceedings



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Preface

The International Symposium on the Fundamentals of Computation Theory FCT'99 was held in Iași, Romania, from August 30 to September 3, 1999. This was the 12th time the conference was held, after Poznan (Poland, 1977), Wendisch-Rietz (Germany, 1979), Szeged (Hungary, 1981), Borgholm (Sweden, 1983), Cottbus (Germany, 1985), Kazan (Soviet Union, 1987), Szeged (Hungary, 1989), Berlin (Germany, 1991), Szeged (Hungary, 1993), Dresden (Germany, 1995), and Kraków (Poland, 1997). This 12th FCT was organized by “Alexandru Ioan Cuza” University of Iași, and it was endorsed by the European Association of Theoretical Computer Science and the Romanian Academy. The conference consisted of plenary lectures presented by invited speakers, parallel sessions for technical contributions, and two satellite workshops.

As at previous conferences, the purpose of this FCT conference was to promote high-quality research in all branches of theoretical computer science, and to bring together active specialists in the field. This is especially important now, at the turn of century, when computer science looks for new computing tools and for a better balance between theory and practice. A broad range of topics were considered of interest for submission and most of them are covered by the invited lectures and the papers accepted for presentation. These include: abstract data types, algorithms and data structures, automata and formal languages, categorical and topological approaches, complexity, computational geometry, computer systems theory, concurrency, constructive mathematics, cryptography, distributed computation, fault-tolerant computing, logics in computer science, learning theory, process algebra and calculi, rewriting, semantics, specification, symbolic computation, universal algebra, molecular computing, and quantum computing.

The program committee had a rather difficult task in selecting for presentation only 42 papers out of the 104 submissions. Several papers which have not found themselves a place in the conference program are of high quality and worth accepting. The selection procedure was based on a very efficient and transparent electronic interaction among the members of the program committee by means of web pages and e-mail. We wish to thank all authors who have submitted papers for consideration, all program committee members for their timely and quality work, as well as the referees who have assisted the program committee in the laborious evaluation process.

The present volume contains all 42 of the accepted technical contributions and 4 (of the 5) invited papers.

Two satellite workshops were also organized: Formal Languages and Automata (Chair: A. Mateescu, Bucharest) and Distributed Systems (Chair: G. Ștefănescu, Bucharest).

The organizing committee was chaired by Gabriel Ciobanu, and it includes C. Barbu, A. Bejan, S. Buraga, V.E. Căzănescu, L. Chiran, L. Ibănescu, D. Lucanu, A. Mateescu, C. Mitrofan, R. Negrescu, S. Orzan, G. Păun, and V. Tablan. We would like to thank all these people for their work, and especially Sabin Buraga for his web pages. We express our gratitude to the Dean and to all colleagues from the Department of Computer Science who have supported us in organizing this event. Special thanks are due to Professor G. Popa, Rector of “A.I. Cuza” University, for his decisive help.

We gratefully acknowledge the financial support of our sponsors: the Association for Computing Machinery (many thanks to Claus Unger, its Secretary and Treasurer), the National Agency for Science, Technology and Innovations, Motorola, S.C. Cotnari S.A., and other local companies.

Last but not least, we thank Springer-Verlag – in particular Professor Jan van Leuwen and Ruth Abraham – for an efficient collaboration in preparing this volume.

June 1999

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