

# Preface

The papers in these proceedings were presented at the workshop "RANDOMIZED ALGORITHMS" held in Brno, Czech Republic, August 27-28, 1998 as a satellite event to the conference "MATHEMATICAL FOUNDATIONS OF COMPUTER SCIENCE". This conference celebrates 25 years from the first conference in this series. MFCS was created to give an opportunity for computer scientists (interested primarily in Theoretical Computer Science) of the Eastern and Central Europe to meet their Western colleagues. The series conferences succeeded in establishing these contacts very well. After the end of the Cold War it turned out that in spite of formal right to travel freely, rather many scientists however do not travel to the well-known but expensive Western conferences. Since the organizers of MFCS have shown their ability to organize conferences which are not so expensive, MFCS has again taken the role of the bridge between the East and the West. No wonder that the level of submission of papers for MFCS has been all-years high in 1998.

The workshop "RANDOMIZED ALGORITHMS" was one of 12 satellite events of MFCS'98, and our workshop is one of the most popular (counting the registered participants).

The program consisted of 3 invited papers authored by Andris Ambainis (Berkeley), Gilles Brassard (Montreal) and Marek Karpinski (Bonn), and of 9 regular papers.

The topics of the workshop included:

- design and analysis of randomized algorithms,
- randomized complexity,
- derandomization techniques,
- design and analysis of approximation algorithms,
- complexity of approximation problems,
- parallel and network algorithms,
- randomized learning,
- quantum computation versus randomized computation,
- various applications.

The success of the workshop depended mostly on the authors of papers and the speakers. However the work of the Program Committee also contributed at some extent. Program Committee of the workshop was truly international:

Setsuo Arikawa (Fukuoka),  
Sanjeev Arora (Princeton),  
Harry Buhrman (Amsterdam),  
Cristian Calude (Auckland),

Ludek Kučera (Prague),  
Ming Li (Waterloo),  
Andrzej Lingas (Lund),  
Josè Rolim (Geneva),

Lance Fortnow (Chicago),  
Rūsiņš Freivalds (chair) (Riga),  
Mordecai Golin (Hong Kong),  
Juraj Hromkovič (Aachen),  
Russell Impagliazzo (San Diego),

Sanguthevar Rajasekaran (Gainesville),  
Osamu Watanabe (Tokyo),  
Rolf Wiehagen (Kaiserslautern),  
Thomas Zeugmann (Fukuoka).

We would like to thank also our referees:

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Alvis Brāzma,  
Jānis Cīrulis,

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Iveta Sala,  
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Without their time-consuming contribution the workshop would not possible.

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Riga, Latvia, June 1998

Rūsiņš Freivalds