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# Distributed Computing

18th International Conference, DISC 2004 Amsterdam, The Netherlands, October 4-7, 2004 Proceedings



Volume Editor

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### **Preface**

DISC, the International Symposium on Distributed Computing, is an annual conference for the presentation of research on the theory, design, analysis, implementation, and application of distributed systems and network. DISC 2004 was held on October 4–7, 2004, in Amsterdam, The Netherlands.

There were 142 papers submitted to DISC this year. These were read and evaluated by the program committee members, assisted by external reviewers. The quality of submissions was high and we were unable to accept many deserving papers. Thirty one papers were selected at the program committee meeting in Lausanne to be included in these proceedings. The proceedings include an extended abstract of the invited talk by Ueli Maurer. In addition, they include a eulogy for Peter Ruzicka by Shmuel Zaks.

The Best Student Paper Award was split and given to two papers: the paper "Efficient Adaptive Collect Using Randomization", co-authored by Hagit Attiya, Fabian Kuhn, Mirjam Wattenhofer and Roger Wattenhofer, and the paper "Coupling and Self-stabilization", co-authored by Laurent Fribourg, Stephane Messika and Claudine Picaronny.

The support of the CWI and EPFL is gratefully acknowledged. The review process and the preparation of this volume were done using CyberChairPRO. I also thank Sebastien Baehni and Sidath Handurukande for their crucial help with these matters.

August 2004 Rachid Guerraoui

### Peter Ruzicka 1947–2003



Peter died on Sunday, October 5, 2003, at the age of 56, after a short disease. He was a Professor of Informatics at the Faculty of Mathematics, Physics and Informatics in Comenius University, Bratislava, Slovakia. Those of us who knew him through DISC and other occasions mourn his death and cherish his memory. These words are written in Peter's honor, as a farewell to a true colleague of our community. Peter's death came as a shock to everyone who knew him. His tragic death is an immense loss to his wife Marta and his daughter Kristina. I hope these words bring some comfort to them.

Peter worked in several research areas of theoretical computer science throughout his long career. His earlier works cover topics that include formal languages, unification, graph pebbling and others. Most of his research works since the early 1990s were in the areas of communication networks and distributed computing, and these works connected Peter to our community. These works include studies of complexity issues for various problems and models of interval routing, and for various problems and topics in distributed computing (like oriented and unoriented networks) and in interconnection networks. Peter was a true hard worker, always choosing difficult and challenging problems. His works always use deep and interesting mathematical tools, and are always presented very clearly and precisely. Peter was very persistent in setting up his research goals and following them. His papers contain many original ideas, and cover all relevant aspects comprehensively. Peter did some of these works together with Stefan Dobrev and Rastislav Kralovic, whom he devotedly supervised as his Ph.D. students in this research area, and he did joint works with many other colleagues.

Peter was a regular participant in many conferences in this area, including DISC and SIROCCO; he was on the program committees of DISC 1998 and 2000 and SIROCCO 1999. He participated and was very actively involved in other conferences, including ICALP, SOFSEM and MFCS. These activities included co-chairing MFCS 1994, chairing MFCS 1997 and chairing SOFSEM 2001, and being on the program committees of MFCS 2000 and SOFSEM 1997. In 1998, when I was the chair of DISC, I approached Peter, suggesting that he organize DISC in Bratislava, thus bringing DISC, for its first time, to an East-European country. Peter accepted this challenge enthusiastically, and with no hesitation whatsoever. Together with his local team, he then devoted the fol-

lowing year to the organization of DISC 1999 in Bratislava. I was in touch with Peter throughout that year and noticed his conscientious efforts to ensure that the conference would be successful. Indeed, this conference proved to be a great success, and Peter and his team were consequently highly appreciated by the Steering Committee and the whole audience.

I knew that Peter was sick, and I contacted him by email before I left home to attend DISC 2003 in Sorrento, at the end of September. When I returned home, a message waited for me, in which his wife Marta informed me about his death. It turned out that on the same days that we all met in Sorrento, Peter was fighting for his life. He died on Sunday, October 5, 2003, when we all made our way back home from the conference. I learnt from his wife that to the very end Peter proved very strong and was full of hope.

Personally, I found Peter an excellent colleague. I spent a few weeks with Peter, during our common visits to each other's place. The time I spent with him was of the highest value to me. He was always open to discussions of new ideas, very skillful as a researcher, very friendly, and very patient and gentle. I will always cherish Peter and Marta's warm hospitality during my visits to Bratislava.

We will all miss a very precious member of our community. I will miss a dear colleague and friend.

Prof. Shmuel Zaks Department of Computer Science Technion, Israel

## Organization

DISC, the International Symposium on Distributed Computing, is an annual forum for research presentations on all facets of distributed computing. The symposium was called the International Workshop on Distributed Algorithms (WDAG) from 1985 to 1997. DISC 2004 was organized in cooperation with the European Association for Theoretical Computer Science (EATCS).



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