

Takeshi Tokuyama (Ed.)

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Preface

ISAAC 2007, the 18th International Symposium on Algorithms and Computation took place in Sendai, Japan, December 17-19, 2007. In the past, it was held in Tokyo (1990), Taipei (1991), Nagoya (1992), Hong Kong (1993), Beijing (1994), Cairns (1995), Osaka (1996), Singapore (1997), Daejeon (1998), Chennai (1999), Taipei (2000), Christchurch (2001), Vancouver (2002), Kyoto (2003), Hong Kong (2004), Hainan (2005), and Kolkata (2006).

The symposium provided a forum for researchers working in algorithms and the theory of computation from all over the world. In response to our call for papers we received 220 submissions from 40 countries. The task of selecting the papers in this volume was done by our Program Committee and many other external reviewers. After a thorough review process, the Committee selected 77 papers. We hope all accepted papers will eventually appear in scientific journals in a more polished form. Two special issues, one of *Algorithmica* and one of the *International Journal of Computational Geometry and Applications*, with selected papers from ISAAC 2007 are in preparation.

The best paper award was given for “Integer Representation and Counting in the Bit Probe Model” to Mohammad Rhaman and Ian Munro. Selected from 27 submissions authored by only students, the best student paper awards were given for “On Mixing and Edge Expansion Properties in Randomized Broadcasting” to Thomas Sauerwald and for “Faster Combinatorial Algorithms for Determinant and Pfaffian” to Anna Urbanska. Two eminent invited speakers, Pankaj K. Agarwal, Duke University, USA, and Robin Thomas, Georgia Institute of Technology, USA, also contributed to this volume.

I would like to thank the Program Committee members and many external reviewers for their great efforts in the review process. I would also like to thank the Conference Committee, Local Organizing Committee, and ISAAC Advisory Committee for their contribution to make the conference a success. Finally, I would like to thank our sponsors and supporting organizations for their assistance and support.

December 2007

Takeshi Tokuyama

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