

Preface

This volume contains the proceedings of the 14th Annual International Symposium on Algorithms and Computation (ISAAC 2003), held in Kyoto, Japan, 15–17 December 2003. In the past, it was held in Tokyo (1990), Taipei (1991), Nagoya (1992), Hong Kong (1993), Beijing (1994), Cairns (1995), Osaka (1996), Singapore (1997), Taejon (1998), Chennai (1999), Taipei (2000), Christchurch (2001), and Vancouver (2002).

ISAAC is an annual international symposium that covers the very wide range of topics in algorithms and computation. The main purpose of the symposium is to provide a forum for researchers working in algorithms and the theory of computation where they can exchange ideas in this active research community.

In response to our call for papers, we received unexpectedly many submissions, 207 papers. The task of selecting the papers in this volume was done by our program committee and referees. After a thorough review process, the committee selected 73 papers. The selection was done on the basis of originality and relevance to the field of algorithms and computation. We hope all accepted papers will eventually appear in scientific journals in more polished forms.

The best paper award was given for “On the Geometric Dilation of Finite Point Sets” to Annette Ebbers-Baumann, Ansgar Grüne and Rolf Klein. Two eminent invited speakers, Prof. Andrew Chi-Chih Yao of Princeton University and Prof. Takao Nishizeki of Tohoku University, contributed to this proceedings.

It is impossible to organize such a successful program without the help of many individuals. I would like to express my appreciation to the authors of the submitted papers, and to the program committee members and external referees for their excellent work. We would also like to thank the members of the organizing committee, Kazuo Iwama, Hiro Ito, Takashi Horiyama, Hiroyoshi Miwa, and Shuichi Miyazaki, for their tremendous work in making ISAAC 2003 a successful conference. Finally, we thank our sponsors for their assistance and support.

Organization

Conference Chair

Toshihide Ibaraki (Kyoto University, Japan)

Program Committee

Naoki Katoh, Program Chair (Kyoto University, Japan)

Tatsuya Akutsu (Kyoto University, Japan)

Susanne Albers (University of Freiburg, Germany)

Franz Aurenhammer (Graz University of Technology, Austria)

Prosenjit Bose (Carleton University, Canada)

Danny Chen (University of Notre Dame, USA)

Otfried Cheong (Eindhoven University of Technology, The Netherlands)

Rudolf Fleischer (Hong Kong University of Science and Technology, Hong Kong)

Naveen Garg (Indian Institute of Technology, Delhi, India)

Satoru Iwata (University of Tokyo, Japan)

Tao Jiang (University of California, Riverside, USA)

Tibor Jordan (Eötvös Loránd University, Hungary)

Xuemin Lin (University of New South Wales, Australia)

Kazuhisa Makino (Osaka University, Japan)

Kunsoo Park (Seoul National University, Korea)

Günter Rote (Freie Universität Berlin, Germany)

Mario Szegedy (Rutgers University, USA)

Paul Vitányi (CWI and University of Amsterdam, The Netherlands)

Organizing Committee

Kazuo Iwama, Co-chair (Kyoto University, Japan)

Hiro Ito, Co-chair (Kyoto University, Japan)

Hiroyoshi Miwa (Kwansei Gakuin University, Japan)

Shuichi Miyazaki (Kyoto University, Japan)

Takashi Horiyama (Kyoto University, Japan)

Hiroataka Ono (Kyushu University, Japan)

Referees

Scott Aaronson	Karin Johnsgard
Eric Allender	Haim Kaplan
Noga Alon	Menelaos Karavelas
Takao Asano	Takumi Kasai
Tetsuo Asano	Leonid Khachiyan
Yasuhito Asano	Rohit Khandekar
Hideo Bannai	Shuji Kijima
Marc Benkert	Dong Kyue Kim
Britta Broser	Sung-Ryul Kim
Kevin Buchin	Gunnar Klau
Adam Buchsbaum	Oliver Klein
Sergio Cabello	Christian Knauer
Leizhen Cai	Janos Komlos
Maw-Shang Chang	Klaus Kriegel
Xiaomin Chen	Danny Krizanc
Zhi-Zhong Chen	Keshav Kunal
Jurek Czyzowicz	Kaoru Kurosawa
Ovidiu Daescu	Tak-Wah Lam
Mark de Berg	Stefan Langerman
Erik Demaine	Mun-Kyu Lee
Luc Devroye	Tobias Lenz
Darko Dimitrov	Qing Liu
Vida Dujmovic	Hsueh-I Lu
Peter Eades	Yi Luo
Vladimir Estivill-Castro	Hiroyoshi Miwa
Uriel Feige	Anil Maheshwari
Tamas Fleiner	Masahiro Mambo
Satoshi Fujita	Jiri Matousek
Hiroshi Furutani	Hideo Matsuda
Joachim von zur Gathen	Yasuko Matsui
Panos Giannopoulos	Shuichi Miyazaki
Joachim Gudmundsson	Pat Morin
Masahiro Hachimori	Hiroshi Nagamochi
Magnus M. Halldorsson	Naomi Nishimura
Yijie Han	Yoshio Okamoto
Xin He	Rene van Oostrum
Frank Hoffmann	Evanthia Papadopoulou
Tsan-sheng Hsu	Heejin Park
John Iacono	C.K. Poon
Hiroshi Imai	Oded Regev
Russell Impagliazzo	Ares Ribó
Toshimasa Ishii	Udi Rotics
Kazuo Iwama	Tim Roughgarden
Ravi Janardan	Kunihiko Sadakane

Koichi Sakurai
 Maiko Shigeno
 Akiyoshi Shioura
 Jeong Seop Sim
 Michiel Smid
 Joel Spencer
 Astrid Sturm
 Benny Sudakov
 Masayuki Takeda
 Yasuhiko Takenaga
 Akihisa Tamura
 Xuehou Tan
 Anusch Taraz
 Seinosuke Toda
 Takeshi Tokuyama
 Etsuji Tomita
 Gerhard Trippen
 Tatsuhiro Tsuchiya
 Ryuhei Uehara
 Shunji Umetani

Takeaki Uno
 Yushi Uno
 Marc van Kreveld
 Kasturi Varadarajan
 Antoine Vigneron
 Caoan Wang
 Chao Wang
 Lei Wang
 John Watrous
 Steve Wismath
 David Wood
 Xiaodong Wu
 Jinhui Xu
 Atsuko Yamaguchi
 Koichi Yamazaki
 Yidong Yuan
 Guochuan Zhang
 Zhou Zhen
 Binhai Zhu

Sponsors

Telecommunications Advancement Foundation

International Communications Foundation

Kansai Research Foundation for Technology Promotion

Casio Science Promotion Foundation

Kansai Chapter of the Information Processing Society of Japan

21st Century COE Program: Information Research Center for Development of

Knowledge Society Infrastructure



<http://www.springer.com/978-3-540-20695-8>

Algorithms and Computation

14th International Symposium, ISAAC 2003, Kyoto,
Japan, December 15-17, 2003, Proceedings

Ibaraki, T.; Katoh, N.; Ono, H. (Eds.)

2003, XVII, 748 p., Softcover

ISBN: 978-3-540-20695-8