

# CONTEMPORARY MATHEMATICS

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## Recent Advances in Adaptive Computation

Proceedings of the International Conference  
on Recent Advances in Adaptive Computation  
May 24-28, 2004  
Zhejiang University, Hangzhou, China

Z.-C. Shi  
Z. Chen  
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Editors



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## Preface

Over the past decade there have been very rapid developments in adaptive computations. To review the recent developments and to explore exciting new directions in this area, the International Conference on Recent Advances in Adaptive Computation was held at the Mathematical Research Center of Zhejiang University in Hangzhou, China, on May 24–28, 2004. The conference covers modern theories and practical applications of the adaptive methods. The scope of the conference is to bring together both specialists and users to discuss the state of the art and the new directions of adaptive computations.

The conference attracted a number of leading scientists in adaptive computations, including the following invited speakers: Mark Ainsworth (University of Strathclyde, Scotland), Carsten Carstensen (Humboldt University at Berlin, Germany), Zhiming Chen (Chinese Academy of Sciences, China), Benqi Guo (University of Manitoba, Canada), Ronald H. W. Hoppe (Universitaet Augsburg, Germany, and University of Houston, USA), Stig Larsson (Chalmers University of Technology, Sweden), Steve W.-B. Liu (University of Kent, England), Rolf Rannacher (University of Heidelberg, Germany), Alfred H. Schatz (Cornell University, USA), and Tao Tang (Hong Kong Baptist University, China). It also drew an international audience of 80 people. Detailed information, including invited speakers, the organizing committee, and conference programs, can be found at <http://lsec.cc.ac.cn/~raac03>.

We are very grateful for the generous financial support provided by the Institute of Computational Mathematics of the Chinese Academy of Sciences as well as the International Research Team on Complex Systems of the Chinese Academy of Sciences and the Large Scale Scientific Computation Research Project of the Ministry of Science and Technology of China.

A number of staff members at Zhejiang University and the Institute of Computational Mathematics, Chinese Academy of Sciences, worked together to handle detailed conference arrangements. We would especially like to thank Professor Xinghua Wang (Chairman of the local organizing committee), Professor Hongwei Xu (Deputy Director of the Mathematical Research Center of Zhejiang University), and Professor Danfu Han (Associate Head of the Department of Mathematics) for their great support. We would also like to thank Professor Xiaoliang Cheng, Ms. Wenqiong Zhang, and Mr. Heyu Wang for their help. We appreciate their assistance in making the conference organization a success.

These conference proceedings were refereed. We would like to thank all referees for their support. We thank Tammy Lam of Hong Kong Baptist University for the considerable work she put into producing the final layout of the proceedings.

Zhong-Ci Shi, Chinese Academy of Sciences  
Zhiming Chen, Chinese Academy of Sciences  
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