Preface

International Conference on Scientific Computing (ICSC05) was held in Nanjing Normal University and Nanjing University, China, from June 4 to June 8, 2005. It aimed to provide a forum for applied mathematicians worldwide to present new and emerging research developments and future directions in computational mathematics and scientific computing. Over 200 participants from over twenty countries and regions attended the conference. The topics of the conference include numerical solutions of PDEs, computational fluid mechanics, numerical linear algebra, and optimization methods. As one of the organizers, I would like to take this opportunity to thank the generous financial supports provided by National Natural Science Foundation of China, Institute of Computational Mathematics of the Chinese Academy of Sciences, Nanjing Normal University, Nanjing University, Nanjing University of Aeronautics and Astronautics, Peking University, North Carolina State University, and Institute of Applied Physics and Computational Mathematics, Beijing.

This special issue contains eight original papers on general topics in optimization, which are contributed by the invited speakers of the conference. It covers a wide spectrum of optimization including theory, methods and applications. The papers have been reviewed by the referees following the same reviewing procedure as that for regular JCM manuscripts. I am grateful to the referees and of course to the authors who all worked to deadlines which enabled this to appear now. I hope that the resulting special issue will be useful to this research community.

During the course of producing this special issue, generous help has been provided by a number of individuals. I particularly thank Professor Tao Tang for initiating this project. I also thank Ms. Li Jing of the JCM's editorial office for the considerable work she put into producing the final layout of this special issue. Finally, I am delighted that Professor Zhong-Ci Shi responded positively to my proposal and that this collection of contributions has therefore appeared here in the Journal of Computational Mathematics.

Wenyu Sun, Guest Editor
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