

## <<当代应用数学的前沿与展望>>

### 图书基本信息

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### 前言

During the period of the 8th Annual Conference of the China Society for Industrial and Applied Mathematics (CSIAM) held on August 24 -30, 2004 in Xiangtan, Hunan Province, China, the Symposium on Frontiers and Prospects of Contemporary Applied Mathematics was held. About 300 representatives from over 100 domestic universities, scientific research institutions and enterprises and from abroad attended the conference. At the symposium some Chinese and foreign scholars and experts were invited to give plenary lectures. They introduced current progress and expressed their prospects on some important topics of the industrial and applied mathematics. Besides, at the section meetings many participants gave academic reports. Considering that these plenary lectures have high academic values due to their representative and perspective, we collected them in a volume for publication. Meanwhile a small part of the academic reports provided in the sections was also selected for this volume. We hope that the publication of this book would effectively help readers understand the current situation of the industrial and applied mathematics and the hot issues in this area. Also we hope the publication of this book would be helpful in pushing the industrial and applied mathematics forward. We would like to take this opportunity to express our heartfelt thanks to all of the speakers at the symposium for their great support, especially to those speakers who wrote papers for this book. We would also like to show our sincere thanks and respect to the National Natural Science Foundation of China, the Mathematical Center of Ministry of Education of China and Xiangtan University for their financial help and support; and to Higher Education Press and World Scientific Publishing Company for their hard work and efforts in publishing this book.

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### 内容概要

This collection of articles covers the hottest topics in contemporary applied mathematics. Multiscale modeling, material computing, symplectic methods, parallel computing, mathematical biology, applied differential equations and engineering computing problems are all included. The book contains the latest results of many leading scientists and provides a window on new trends in research in the field.

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