

Preface

This volume partially contains the papers presented in the 2006 *International Conference on Nonlinear Science and Complexity*, which held in Beijing, China, August 7-12, 2006. This conference provided a place to exchange recent developments, discoveries and progresses on *Nonlinear Science and Complexity*. The fundamental and frontier theories and techniques for modern science and technology were presented. In addition, this conference provides a platform to exchange the methodology in applied nonlinear science, nonlinear modeling and intelligent computations. The conference organizers believe this conference to stimulate more research in nonlinear science and complexity. The conference focused on the following topics:

- Lie Group Analysis and Applications in Nonlinear Science Complex (Nail H. Ibragimov)
- Nonlinear Wave Dynamics and Patterns in Geophysical Flows (Lev A. Ostrovsky and Victor I. Shrira)
- Chaotic Dynamics and Transport in Classic and Quantum Systems (Sergey Prants)
- Nonlinear Dynamics, Oscillations and Stability (Albert C.J. Luo, Pei Yu, Subhash Sinha)
- Nonlinear Fluid Mechanics (Gazanfer Unal and Shijun Liao)
- Dynamics in Continuous Media and Wave Propagations (Liming Dai)
- Modeling and Nonlinearity in Sensors, Bio-devices, MEMS and Nano-systems (Frank Z. Feng, G. Nakhaie Jazar)
- Nonlinear Modeling and Control of Smart Material Systems (M.H. Elahinia, Xubin Song)
- Nonlinear Modeling and Control and Intelligent Computing (Zhongliang Jing, Trong Wu)

Many papers presented in this conference show excellent achievements in nonlinear science and complexity. The organizers believes this permanent record will make the work last longer and more influence. The conference organizers wish to express their deep appreciation to all the authors and reviewers.

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