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## IMPORTANT DEADLINES

### April 20, 2014

Detailed abstract submission and special session or mini-symposium proposals are due

### May 2, 2014

Notification of acceptance/rejection

### May 3, 2014

Advanced registration

## CONTACT SHANGHAI NSA'14

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# SHANGHAI NSA'14

## THE 6th SHANGHAI INTERNATIONAL SYMPOSIUM ON NONLINEAR SCIENCES AND APPLICATIONS

June 26-July 1 2014 CHINA <http://ccsb.fudan.edu.cn/snsa14/>

## CALL FOR PAPERS

The sixth Shanghai International Symposium on Nonlinear Sciences and Applications (Shanghai NSA'14) will be held at Fudan University in Shanghai and at Zhoushan Islands on June 26-July 1, 2014.

Shanghai NSA'14 is sponsored by the Shanghai Society of Nonlinear Science and the Shanghai Centre for Nonlinear Science, organized by the Centre for Computational Systems Biology and the School of Mathematical Sciences of Fudan University, and supported by the LMNS (Fudan University) of Ministry of Education, the Shanghai Centre for Mathematical Sciences, and the Natural Science Foundation of China.

Nonlinear science is one of the focusing research fields and most active scientific frontier in this century, and Shanghai NSA'14 is devoted to this important area of scientific research. The theme of the symposium is intended to be broad enough so as to cover most of directions in nonlinear science, with the aim of promoting wide interactions among researchers from different academic disciplines who are interested in nonlinear science and related technologies. The symposium will provide both experts and new comers from different research backgrounds with an excellent opportunity to review the latest progress and development in the field of nonlinear science, and to exchange their experience, progress, and ideas. The symposium will consist of both oral and poster presentations in six days.

A few renowned leading scientists in the field of nonlinear sciences have committed to give plenary or invited talks at Shanghai NSA'14. Mathematical and physical theories, physical and chemical experiments, engineering design, biological studies, and various applications are included in the main program of the symposium. Topics include but are not limited to the following:



### 1. Bifurcation and Chaos

- 1.1 Control and synchronization of chaos
- 1.2 Chaotic dynamical models
- 1.3 Bifurcation analysis and computation
- 1.4 Chaos theory in physical systems
- 1.5 KAM curves and chaotic scattering
- 1.6 Random dynamical systems and stochastic dynamics and bifurcations

### 2. Fractals

### 3. Solitons

### 4. Finite- and Infinite-dimensional Nonlinear Dynamic Systems

### 5. Nonlinear Time Series Analysis

### 6. Complexity and Complex Systems

- 6.1 Complex dynamics in neural networks
- 6.2 Complex dynamics in traffic and granular flows
- 6.3 Complex dynamics in physical and chemical systems
- 6.4 Oscillations and complex dynamics in biological systems
- 6.5 Complex dynamical networks
- 6.6 Cellular automata and neural networks

### 7. Nonlinear Brain Dynamics

- 7.1 Neurodynamics
- 7.2 Neuroimages
- 7.3 Neural encoding and decoding
- 7.4 Stochastic processes & Bayesian inference

### 8. Applications

- 8.1 Economics and finance
- 8.2 Computational systems biology
- 8.3 Bio-medical engineering
- 8.4 Materials and mechanical sciences
- 8.5 Information science and technology
- 8.6 Inverse problems
- 8.7 Free and moving boundary problems
- 8.8 Signal and image processing
- 8.9 Remote sensing theory and applications
- 8.10 Physical experiments and electronic engineering
- 8.11 Ecology and Evolution

### 9. Scientific Computation in Nonlinear Sciences

### 10. Other Related Nonlinear Sciences and Technologies

