

## PROGRAM COMMITTEE

### General Chairmen:

Guanrong Chen, China  
Jianfeng Feng, UK and China  
Zhiming Ma, China  
Zhewei Zhou, China

### Co-chairs:

Shiqiang Dai, China  
Fuzhou Gong, China  
Guoxiang Huang, China  
Ying-Cheng Lai, USA

## ADVISORY COMMITTEE

### Chairmen:

Kazuyuki Aihara, Japan  
Celso Grebogi, UK  
Jürgen Kurths, Germany  
Dongyun Yi, China

### Members:

Ping Ao, USA and China  
David Cai, USA and China  
Jinde Cao, China  
Luonan Chen, China  
Mingzhou Ding, USA  
Konstantinos Efstathiou, NED  
Donghui Fang, China  
Haiping Fang, China  
Zhaosheng Feng, USA  
Ulrike Feudel, Germany  
Xinchu Fu, China  
Theo Geisel, Germany  
Albert Goldbeter, Belgium  
Hao Ge, China  
Guoqing Gu, China  
Maoan Han, China  
Jinzhi Lei, China  
Xiang Li, China  
Jinhu Lü, China  
Maciej Ogorzalek, Poland  
Hong Qian, USA  
Miguel A.F. Sanjuan, Spain  
Eckehard Schöll, Germany  
Gouhei Tanaka, Japan  
Rubin Wang, China  
Xingang Wang, China  
Xiaofan Wang, China  
David Waxman, UK and China  
Jianhong Wu, Canada  
Dongmei Xiao, China  
Guangle Yan, China  
Yuguo Yu, China  
Jie Zhang, China  
Tianshou Zhou, China  
Xinfu Zou, Canada

## ORGANIZING COMMITTEE

### Chairmen:

Wei Lin, China  
Qiang Luo, China  
Jiong Ruan, China  
Xiao Wang, China  
Wenyong Zhong, China

### Secretaries:

Lihua Jiang, China  
Hua Deng, China  
Donghua Zhao, China

## IMPORTANT DEADLINES

### April 15, 2016

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

### May 5, 2016

Notification of acceptance/rejection

### May 10, 2016

Advanced registration

## CONTACT SHANGHAI NSA'16

Ms. Hua Deng  
Centre for Computational Systems Biology  
School of Mathematical Sciences  
Fudan University, Shanghai 200433, China  
Fax: 86-21-65646073 Tel: 86-21-55665546

# THE 7th SHANGHAI INTERNATIONAL SYMPOSIUM ON NONLINEAR SCIENCES AND APPLICATIONS

Shanghai NSA'16, July 13- July 19, 2016, Shanghai, China

<http://ccsb.fudan.edu.cn/snsa16/> (The website will be open on January 20, 2016)

## CALL FOR PAPERS

The seventh Shanghai International Symposium on Nonlinear Sciences and Applications (*Shanghai NSA'16*) will be held at Fudan University in Shanghai and Hunan on July 13-19, 2016.

*Shanghai NSA'16* is sponsored by the Shanghai Society for Nonlinear Sciences, co-sponsored by the Shanghai Center for Nonlinear Sciences, organized by the Center for Computational Systems Biology, the School of Mathematical Sciences of Fudan University, co-organized by Jishou University and National University of Defense Technology, and supported by the Shanghai Center for Mathematical Sciences and National Natural Science Foundation.

Nonlinear science is one of the focusing research fields and most active scientific frontier in this century, and *Shanghai NSA'16* 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 the 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 seven days (two days at Fudan University in Shanghai and five days at Jishou University in a city of Hunan Province).

A few renowned leading scientists in the field of nonlinear science will be giving keynote speeches in the symposium.

Mathematical and physical theories, physical and chemical experiments, engineering design, biological studies, and their 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, 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 Neuroimaging
- 7.3 Analysis of EEG and fMRI datasets
- 7.4 Nonlinear dynamics of nerve cells

### 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 & Technologies



復旦大學

Fudan University



國防科學技術大學  
National University of Defense Technology





## PROPOSALS OR DETAILED ABSTRACTS SUBMISSION

**P**ROPOSALS of organizing mini-symposiums or special sessions are welcome and encouraged, in which information about the organizers, topics, and estimated numbers of speakers should be indicated.

- ❖ Detailed abstracts of papers should include the following sections: 1) Objective of the research; 2) Novelty of the work; 3) Methods and techniques; 4) Main results; 5) Conclusions. The format of the abstract for the plenary talks will be according to author's wishes.
- ❖ Detailed abstracts should not be longer than two A4 pages.
- ❖ Prepare your abstract in English according to the following structured format: Title, Author(s), Affiliations, and Main Text. The title of the abstract should be typed in bold face letters (size 14, Times New Roman font). The institute and mailing address for every author should be noted clearly. At least the e-mail address of the corresponding author should be noted clearly for us to contact easily. The author(s) name, institute and mailing address, and main text should be typed with Times New Roman font (size 10.5), 2.5 cm margin should be left both on the top and bottom, and 3 cm margin should be left both on the right and left. No more than 6 references should be listed at the end of the abstract.
- ❖ Category code and main topic (for example, 7.1 Neurodynamics) of each abstract should be noted on the right top of your abstract page, and here you may apply for your abstract to be presented by oral or poster.
- ❖ All the proposals and detailed abstracts should be submitted through the conference website [ccsb.fudan.edu.cn/snsa16](http://ccsb.fudan.edu.cn/snsa16) or e-mail: [snsa@fudan.edu.cn](mailto:snsa@fudan.edu.cn). If we receive your submission, we shall quickly inform you of the receipt through the e-mail. If you get no reply in three working days, you are suggested to contact us again. We shall send you the decision on the acceptance and the type of your presentation at early May 2016.

## SYMPOSIUM & SOCIAL ACTIVITIES PROGRAM (Preliminary)

July 13, 2016	Registration and welcoming reception, Fudan University, Shanghai
July 14, 2016	Plenary talks, Fudan University, Shanghai
July 15, 2016	A trip from Shanghai to Hunan by air
July 16, 2016	Plenary and session talks
July 17, 2016	Social activities
July 18, 2016	Plenary and session talks
July 19, 2016	Social activities

## ACCOMMODATION & REGISTRATION

**A**CCOMMODATION at Fudan University (Address: 220 Handan Road, Shanghai, China) will be arranged at Fu-Xuan Hotel and Yan-Yuan Hotel, which are the guesthouses of Fudan University and located in the main campus close to the venue.

Either hotel will provide the participants with a special rate for rooms, discounted only for the symposium. The price for a Standard Room (double room or twin room) is US\$70 per night (including breakfast).

- The registration fee is US\$700 for a regular participant before the deadline (May 20, 2016). The registered participant is offered with a copy of program-abstract book, gifts, reception, coffee/tea break, daily meals, banquet, transportation from Shanghai to Hunan, and five-days accommodation in Hunan.
- The student is charged US\$600 before the deadline for a copy of program-abstract book, gifts, reception, coffee/tea break, daily meals, banquet, transportation, and five-days accommodation in Hunan. The photocopy of a student ID card should be presented when she or he registers.
- Each family member accompanied is charged US\$700 for gifts, reception, daily meals, banquet, transportation, and five-days accommodation in Hunan.
- Financial awards will be available for the students or young researchers who submit works of high quality. For all the payments after the deadline (May 20, 2016), an extra pay of US\$60 is needed. More information of the payment is listed below.

### BANK TRANSFER

Account Number: 31001544900055655174  
 Account Name (Beneficiary):  
 Shanghai Society of Nonlinear Science  
 Bank: China Construction Bank  
 Shanghai Branch, Yangpu Sub-branch  
 Attn: Ms. Lihua Jiang, the financial secretary of  
 Shanghai NSA'16

### BANK DRAFT or CHECK

To: "Ms. Lihua Jiang, the financial secretary of  
 Shanghai NSA'16"  
 Shanghai Society of Nonlinear Science  
 School of Mathematical Sciences, Fudan University  
 220 Handan Road, Shanghai 200433, China  
 Note: *the words underlined above should be written on  
 the draft or check.*

### CASH or CREDIT CARD

Onsite payment of the registration fee will be available during the registration time of Shanghai NSA'16 on July 13-14, 2016.

**HUNAN** is a Province that lies in south-central China. Hunan is named after its location at the south of Dongting Lake (Hu means lake and Nan means south literally). It covers an area of 211,800 square kilometers. Surrounded by mountains and hills in the east, west and south, Hunan comprises of hills and basins in the center and plains in the north. Hunan is located in a region with a continental subtropical seasonal humid climate with four distinct seasons. It has abundant sun, long frostless periods and abundant rain. Jishou and Zhangjiajie are the prefecture-level cities in the northwestern part of Hunan. For more information refer to [Wikipedia](http://Wikipedia).



**SHANGHAI** is the biggest city in China, and a harmonic mixture of the traditional and the modern, the east and the west. Shanghai has completely changed in the last decade. The great metropolis of Shanghai is currently undergoing one of the fastest economic expansions that the world has ever seen. While shops overflow and the skyline fills with skyscrapers, Shanghai now seems certain to recapture its position as East Asia's leading business city, a status it last held before World War II. Visiting and touring Shanghai are truly enjoyable for many.

