

Third International Conference on  
**Recent Advances in Nonlinear Mechanics**  
(RANM2014)



6-9 January, 2014, Harbin, China

### About RANM2014

The conference series *Recent Advances in Nonlinear Mechanics* (RANM) gathers leading researchers from three major areas of mechanics, namely, dynamics, fluids and materials. Papers from both fundamental and applied problems, where nonlinearities or nonlinear interactions play major roles, are very welcome.

The series has been founded by Prof M Wiercigroch of the University of Aberdeen, where the first conference was held in 2005. The second RANM event was organized by Dr KC Woo of the University of Nottingham Malaysia Campus, four years later in Kuala Lumpur, where it was decided that 3rd RANM will be hosted by HIT.

Harbin Institute of Technology (HIT) was founded in 1920 and it is one of the top ten universities in China. The strategy of the university is to link with the world leading universities in all aspects of research and education. Specifically, in the areas of science, engineering, management and liberal arts.



Harbin is a dynamic city and the capital of the Heilongjiang Province in Northeast China. With its 7 millions inhabitants, it is the tenth most populated city in China. Harbin located near the Songhua River Wetland, is originally a Manchu world meaning “a place for drying fishing nets”. Its nickname, “Ice City”, is well-earned as its winters are dry and cold with average temperature  $-19^{\circ}\text{C}$  in January. The annual Harbin International Ice and the Snow the Sculpture Festivals have been held since 1985, and they belong to the largest ice-snow festivals in the world.



### Conference Symposia and Chairs

Similarly to the previous RANM conferences, RANM2014 will run three symposia on Dynamics, Fluid Mechanics and Materials, which will be organized by symposia chairs. The symposia, their chairs and the main topics are listed below.

#### Symposium on Dynamics

Chairs: G Rega (Rome) and C Liu (Beijing)

- *Structural vibrations*
- *Parameter identification*
- *Chaos and bifurcations*
- *Non-smooth and stochastic dynamics*
- *Modeling and simulation of nonlinear systems*
- *Analytical, numerical and experimental methods*
- *Application of nonlinear dynamics*

#### Symposium on Fluid Mechanics

Chairs: P Manneville (Paris) and Y Guo (Aberdeen)

- *Flow instability and transition*
- *Vortex dynamics*
- *Fluid-structure interactions*
- *Biofluid mechanics*
- *Waves and shocks*

#### Symposium on Materials

Chairs: TJ Lu & LF Ma (XJTU)

- *Theoretical solid mechanics*
- *Granular materials and composite*
- *Waves and impacts*
- *Biological materials*
- *Materials properties, measuring methods*
- *MEMS, NANO, and smart materials and structures*

### Conference Chairs

Marian Wiercigroch, University of Aberdeen, UK  
Qingjie Cao, Harbin Institute of Technology, China

### Local Organising Committee

Qingjie Cao, Harbin Institute of Technology, China (Chair)  
Yanwei Han, Harbin Institute of Technology, China  
Tingwei Liang, Harbin Institute of Technology, China  
Dan Wang, Harbin Institute of Technology, China

### Scientific Committee

Chris Calladine, University of Cambridge, UK  
Qingjie Cao, Harbin Institute of Technology, China  
Guanron Chen, City University of Hong Kong, HK  
Felix Chernousko, Russian Academy of Sciences, Russia  
Yakun Guo, University of Aberdeen, UK  
Xiaodong He, Harbin Institute of Technology, China  
Haiyan Hu, Beijing Institute of Technology, China  
Tomasz Kapitaniak, TU Lodz, Poland  
Edwin Kreuzer, HHTU, Germany  
Jurgen Kurths, University of Potsdam, Germany  
Stefani Lenci, University of Marche, Italy  
Andrew Leung, City University of Hong Kong, HK  
Jiachun Li, Tsinghua University, China  
Caishan Liu, Peking University, China  
Qishao Lu, BUAA, China

**Scientific Committee Continued**

Tianjian Lu, Xi'an Jiatong University, China  
 Lifeng Ma, Xi'an Jiatong University, China  
 Paul Manneville, Ecole Polytechnique, France  
 Robert McMeeking, UCSB, USA  
 Francis Moon, Cornell University, USA  
 Nikita Morozov, Russian Academy of Sciences, Russia  
 Tom Mullin, University of Manchester, UK  
 Yoshiko Nakamura, University of Tokyo, Japan  
 Ekaterina Pavlovskaja, University of Aberdeen, UK  
 Michael Paidoussis, McGill University, Canada  
 William Price, University of Southampton, UK  
 Giuseppe Rega, University of Roma, Italy  
 Steve Reid, University of Aberdeen, UK  
 Pierre Suquet, CRNS, France  
 Andrzej Tylikowski, WUT, Poland  
 Marian Wiercigroch, University of Aberdeen, UK  
 John Willis, University of Cambridge, UK  
 Ko-Choong Woo, UNMC, Malaysia  
 Yousheng Wu, Chinese Academy of Engineering, China  
 Yeping Xiong, University of Southampton, UK  
 Jian Xu, Tongji University, China  
 James Yorke, University of Maryland, USA

**Keynote speakers**

Guanrong Chen, University of Hongkong, China  
 Haiyan Hu, Beijing Institute of Technology, China  
 Stefano Lenci, Polytechnic University of Marche, Italy  
 Tianjian Lu, Xi'an Jiatong University, China  
 Robert McMeeking, UCSB, USA  
 Maurice Rossi, Pierre & Marie Curie University, France  
 Linzhi Wu, Harbin Institute of Technology, China  
 Lixiang Zhang, Kunming University, China

**Important Dates**

30 June 2013: Abstract submission  
 30 Aug 2013: Notification of acceptance  
 01 Oct 2013: Registration open  
 06 Jan 2014: Conference starts  
 09 Jan 2014: Conference finishes  
 01 Feb 2014: Invitation to submit journal papers  
 01 Jul 2014: Journal papers accepted for publication  
 01 Dec 2014: Journal papers published

**Registration**

**Early Bird Registration** before 1 November 2013

Participant: CNY 3500  
 Student: CNY 2000  
 Accompanying Person: CNY 1250

**Late Registration** after 1 November 2013

Participant: CNY 4000  
 Student: CNY 2500  
 Accompanying Person: CNY 1250

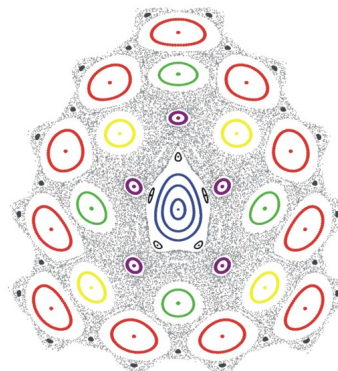
The registration fee will cover the registration pack (a book of abstracts, coffee breaks, lunches, welcome reception and conference dinner and the excursion to the Harbin Ice Festival. An additional conference dinner ticket can be purchased separately for CNY 300.

**Social Programme**

An exciting social programme is planned to welcome participants and to make their stay in Harbin enjoyable. Specifically, an excursion to the internationally acclaimed Harbin Ice Festival will feature. In addition, the participants can purchase post-conference Harbin Yabuli Skiing (CNY 750) and Harbin Yabuli Skating (CNY 300) tours.

**Publications**

Conference proceedings are not planned but selected papers will be invited to be submitted to peer review journals including *Acta Mechanica Sinica*, *International Journal of Nonlinear Dynamics and Control*, *International Journal of Mechanical Sciences*, *International Journal of Non-linear Mechanics*, *Science China*.

**Conference Venue and Accommodation**

The RANM 2014 will be held in the conference centre of the Friendship Palace Hotel Harbin. The Friendship Palace Hotel (Harbin Youyigong Binguan) is located on Youyi Road near the Songhua River in Harbin, close to the Zhongyang Dajie Shopping Centre, winter ice sculptures, Sophia Cathedral and Zhaolin Park.

**Friendship Palace Hotel-Harbin ★★★★★**

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