

2018 International Conference of Multi-scale Modeling and Simulation of Materials (ICM³)

July 1-5, 2018

Xi'an

Research Center of Materials Genome, School of Materials Science and Engineering,

Northwestern Polytechnical University

材料基因研究中心, 材料学院, 西北工业大学

Computational Materials Science Branch of Chinese Materials Research Society

中国材料研究学会计算材料分会

OVERVIEW & HISTORY

Multi-scale modeling and simulation have become major tools in the design and optimization of novel materials and their processing. It can largely save R & D cost by providing material property data in advance so as to offer new solutions for later experiment. In recent years, computational simulation and experiment have been complementing each other in the field of material research, which has promoted the development of new materials. Based on this, International Symposium on Multi-scale Modeling & Simulation of Materials was initially held by Computational Materials Science Branch of the Chinese Materials Research Society in 2005.

The aims of the annual symposium are: (1) to provide an international platform for peers abroad and at home to present recent achievements and to promote the development in the field of multi-scale modeling and simulation of materials; (2) to broaden the view of China's researchers in multi-scale computational simulation of materials and to promote the development of computational materials science and relevant industries in China through international exchange and communication.

After years' development, the International Symposium on Multi-scale Modeling & Simulation of Materials has become one of the most influential international conferences in the area of computational materials science. It been successfully held for ten times respectively at Fudan University (2008 and 2013), Tsinghua University (2009), Institute of Metal Research, Chinese Academy of Sciences (IMR, CAS) (2010 and 2017), Shanghai Institute of Ceramics, CAS (2011), University of Science and Technology Beijing (2012), Institute of Solid State Physics, CAS (2014), Beihang University (2015), Dalian University of Technology (2016). and Institute of Metal Research, CAS (2017), Northwestern Polytechnical University is selected, after meticulous preparation and application, to hold the 11th International Symposium on Multi-scale Modeling & Simulation of Materials in 2018.

TOPICS

Invited talks will be given by renowned scholars around the world on the development of multi-scale computational simulation methods for materials, integration of algorithms and software, and application of multi-scale computational simulation of materials. Several best poster awards will be given to the young authors of best posters selected by committee members to encourage scientific research.

The symposium will focus on topics such as integration calculation and multi-scale simulation methods, etc. Representatives from industries and enterprises are also invited. Contributions are welcome on, but not limited to the following topics:

- 1) MGI and ICME, including high-throughput computation and database technology.
- 2) First principles prediction, including prediction algorithm of crystal structure, lattice dynamics, solid kinetics, basic properties of solids and defect prediction.
- 3) Multi-scale simulation of phase transformations and microstructural evolution, including Meso-scale simulation, phase diagram computation, thermodynamics, kinetics and microstructure optimization.
- 4) Material process simulation, including thermo-mechanical processing, melting, casting, welding, crystal finite element simulation in 3-D printing and processing, structural optimization and process optimization.
- 5) Multifunctional materials and device simulations, including superconducting, thermoelectric, photovoltaic, nanomaterials, etc., as well as disordered systems and nuclear energy materials.

TENTATIVE PROGRAM

Date	Moring	Afternoon
July 1 (Sunday)	Registration	
July 2 (Monday)	Invited Talks	Invited Talks
July 3 (Tuesday)	Invited Talks	Invited Talks
July 4 (Wednesday)	Training Courses	Training Courses
July 5 (Thursday)	Training Courses	Training Courses

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Jin-Cheng Wang

Xin Lin

Yong-Xin Wang

Heng Li

Yan-Li Lu

Hai-Feng Wang

TIME AND VENUE

Registration

July 1

Swisstouches Hotel

Symposium

July 2-3

Swisstouches Hotel

Courses

July 4-5

Meeting Room 328, Gong Building,
Youyi Campus, NPU.

CONTACTS

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KEY DATES

First circular: April 1 2018

Deadline for abstract submission: April 30, 2018

Notification of acceptance: May 5, 2018

Deadline for early registration: June 15, 2018

Symposium: July 1-5 2018

REGISTRATION

Please fill the attached form and send it back to Zhi-Jun Wang: icm3@nwpu.edu.cn. Registration can be done via the meeting website: <http://web.bjxask.com/yun/xbgy/#>. The registration fee for regular participants is 1000 RMB (\$200 for oversea's), and that for students is 500 RMB (\$100). Online registration: April 1 - June 15; On-site registration: July 1 – 3, 2018.