



Invitation for the Final of 2018 ASC Student Supercomputer Challenge

Dear Sir or Madam,

We sincerely invite you to the final of the 2018 ASC Student Supercomputer Challenge 2018 (hereinafter referred to as ASC18).

The ASC Student Supercomputer Challenge is the world's largest supercomputing competition for undergraduates initiated by China and has been held for seven times. It aims to promote the exchange and cultivation of young supercomputing talents between countries and regions through competition, enhance the level of supercomputing applications and R&D capabilities and promote innovation in technology and industry with supercomputing as the driving force. The final of ASC18 is jointly organized by Asia Supercomputer Community, Nanchang University and Inspur Group.

There are more than 300 undergraduate teams from around the world sign up for the competition. After fierce competition in the past two months, the following 20 universities finally entered the final: ShanghaiTech University, Shanghai Jiaotong University, Qinghai University, Zhejiang University, Hong Kong Baptist University, National University of Defense Technology, Beihang University, Taiyuan University of Technology, Sun Yat-Sen University, Huazhong Agricultural University, Taiwan Tsinghua University, Fuzhou University, Southeast University, University of Erlangen-Nuremberg, State University of St. Petersburg, University of Miskolc, Kasetsart University, Texas A&M University, Tsinghua University and Nanchang University.

From May 5th to 9th, the top 20 university teams will gather in Nanchang University to compete for the championship of the final. At that time, 20 teams will design and build their own supercomputers at a power consumption limitation of 3,000 watts, complete an AI machine reading comprehension from Microsoft and other tough competition questions such as Nobel Prize scientific application cryo-EM Relion, NASA computational fluid dynamics software CFL3D, and HPL and HPCG benchmark test, etc. All teams will deliver their presentation in English. The final sets up Champion and Silver prize, Bronze Prize, Highest linpack, Application Innovation Award and other awards. The closing and awarding ceremony of ASC18 Final is to be held on May 9th.

During the finals, the 18th HPC Connection Workshop, the Artificial Intelligence and Supercomputer Innovation Symposium, and the ASC Development Committee Conference will be held on May 8 and 9. Celebrated experts and scholars from China, the United States, and Europe will report on innovative topics such as artificial intelligence, supercomputing and science.

We sincerely invite you to the final of ASC18 and attend the 18th HPC Connection Workshop, the Artificial Intelligence and Supercomputer Innovation Symposium, and the ASC Development Committee Conference as well as the closing ceremony. Please log in and register at <http://www.asc-events.org/ASC18/Workshop.php>.

ASC18 Committee

April, 2018

The Final of 2018 ASC Student Supercomputer Challenge

Date: May 5-9

Venue: Nanchang University

| Time | | Agenda |
|-------|--------------|--|
| May 5 | 08:00-20:00 | Final rules announcement; Cluster system setup |
| May 6 | 08:00-20:00 | Cluster system setup |
| May 7 | 08:00-18:00 | Competition: HPL, HPCG, RELION, Mystery application |
| May 8 | 08:00-18:00 | Competition: CFL3D, Answer Prediction for Search Query |
| | 13:30 -17:30 | 18th HPC Connection Workshop |
| May 9 | 08:30 -12:15 | Competition: the presentation session of ASC18 final |
| | 9:00 -11:20 | Artificial Intelligence and Supercomputer Innovation Symposium |
| | 10:00-12:00 | ASC Development Committee Conference (Invited Only) |
| | 14:30-16:30 | The closing and awarding ceremony of ASC18 Final |

The 18th HPC Connection Workshop

Date: May 8

Location: International Exchange Center, Nanchang University

Theme: The Next Frontier: AI, Computing and Science

| Time | Topic |
|-------------|---|
| 13:30-14:00 | To merge or not to merge, this is THE question for data fusion ZiChen Xu , Professor, Nanchang University |
| 14:00-14:30 | High performance computing and Big Data:challenges for the Future Jack Dongarra ASC Advisory Committee Chair University of Tennessee,Oak Ridge National Laboratory |
| 14:30-15:00 | Exascale computing in China: Current status and perspectives Depei Qian , Professor, Beihang University, Sun Yat-sen University Director, HPC Key Project, National High-Tech R&D Program |
| 15:00-15:30 | Soon to Announce |
| 15:30-16:00 | Extreme-scale earthquake simulation on Sunway TaihuLight Haohuan Fu Deputy Director, National Supercomputing Center in Wuxi Associate Professor, Tsinghua University |
| 16:00-16:30 | EuroHPC: European entry into Exascale race Marek Michalewicz Interdisciplinary Centre for Mathematical and Computational Modelling (ICM), University of Warsaw Institute for Advanced Computational Science, Stony Brook University |
| 16:30-17:00 | Amazing HPC with continuous Innovation of GPU Technology Tong Liu , GM of HPC and Emerging Markets of NVIDIA China |
| 17:00-17:30 | AI for HPC: Experiences and Opportunities Anne C. Elster HPC-Lab Director, Faculty of Information Technology and Electrical Engineering Norwegian University of Science and Technology |

Artificial Intelligence and Supercomputer Innovation Symposium

Date: May 9

Venue: 2nd Floor, Multi-function hall of international exchange center , Nanchang University

| Time | Agenda |
|-------------|---|
| 9:00-9:20 | The Application of the Sunway Taihu Light Guangwen Yang, Director, National Supercomputing Center in Wuxi |
| 9:20-9:40 | ABC All-in-one Machine Promotes Industry AI Transformation Lead AI Architect, Baidu |
| 9:40-10:00 | Build an End-to-End AI Computing System Solution Qing Zhang, Lead AI Architect, Inspur |
| 10:00-10:20 | Soon to Annouce |
| 10:20-10:40 | Solving AI Problem by Combination of deep learning and supercomputing Weidong Min, Nanchang University |
| 10:40-11:00 | Intelligent Image Recognition Application Mu Yang, founder of Megvii |
| 11:00-11:20 | Genomic sequencing and HPC Shilin Tian, Novogene |

The Closing and Awarding Ceremony of 2018 ASC Student Supercomputer Challenge

Time: May 9

Venue: Music Hall, Nanchang University

| Time | Agenda |
|-------------|--|
| 14:30-14:40 | Speech by ASC18 host |
| 14:40-14:50 | Speech by ASC Initiator |
| 14:50-15:00 | Speech by government officials |
| 15:00-15:10 | Contest results Announcement of ASC18 final |
| 15:10-16:10 | ASC18 Awarding Ceremony |
| 16:10-16:20 | Speech by ASC experts |
| 16:20-16:30 | Speech by ASC Advisory Committee Chair |