

January 20, 2017

## **2017 International Summer School on HPC Challenges in Computational Sciences**

Graduate students and postdoctoral scholars from institutions in Canada, Europe, Japan and the United States are invited to apply for the eighth International Summer School on HPC Challenges in Computational Sciences, to be held June 25 to 30, 2017, in Boulder, Colorado, United States of America.

Applications are due March 6, 2017. The summer school is sponsored by Compute/Calcul Canada, the Extreme Science and Engineering Discovery Environment (XSEDE), the Partnership for Advanced Computing in Europe (PRACE) and the RIKEN Advanced Institute for Computational Science (RIKEN AICS).

Leading computational scientists and HPC technologists from the U.S., Europe, Japan and Canada will offer instructions on a variety of topics and also provide advanced mentoring. Topics include:

- HPC challenges by discipline
- HPC programming proficiencies
- Performance analysis & profiling
- Algorithmic approaches & numerical libraries
- Data-intensive computing
- Scientific visualization
- Canadian, EU, Japanese and U.S. HPC-infrastructures

The expense-paid program will benefit scholars from Canadian, European, Japanese and U.S. institutions who use advanced computing in their research. The ideal candidate will have many of the following qualities, however this list is not meant to be a “checklist” for applicants to meet all criteria:

- Familiar with HPC, not necessarily an HPC expert, but rather a scholar who could benefit from including advanced computing tools and methods into their existing computational work
- A graduate student with a strong research plan or a postdoctoral fellow in the early stages of their research efforts
- Regular practice with parallel programming (i.e., student utilizes parallel programming generally on a monthly basis or more)
- May have a science or engineering background, however, applicants from other disciplines are welcome provided their research activities include computational work

Students from underrepresented groups in computing are highly encouraged to apply (i.e., women, racial/ethnic minorities, persons with disabilities, etc.). If you have any questions regarding your eligibility or how this program may benefit you or your research group, please do not hesitate to contact the individual associated with your region below.

Interested students should apply by March 6, 2017. Meals and housing will be covered for the selected participants, also support for travel will be given.

Further information and application:

<http://www.ihpcss.org>

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**About Compute Canada / Calcul Canada:**

Compute Canada, in partnership with regional organizations ACENET, Calcul Québec, Compute Ontario and WestGrid, provides state-of-the-art advanced research computing systems, storage and software solutions. We serve Canadian researchers and their collaborators in all academic sectors. Our world-class team of more than 200 experts employed by 37 partner universities and research institutions across the country provide direct support to research teams. Compute Canada receives funding through The Canada Foundation for Innovation, while our provincial partners and academic institutions provide the required matching funds. Canada's advanced research computing platform is currently undergoing an exciting refresh, with four new systems planned to be installed and become operational in 2017. For more information, see [www.computecanada.ca](http://www.computecanada.ca).

**About PRACE:**

The Partnership for Advanced Computing in Europe (PRACE) is an international non-profit association with its seat in Brussels. The PRACE Research Infrastructure provides a persistent world-class high performance computing service for scientists and researchers from academia and industry in Europe. The computer systems and their operations accessible through PRACE are provided by 5 PRACE members (BSC representing Spain, CINECA representing Italy, CSCS representing Switzerland, GCS representing Germany and GENCI representing France). The Implementation Phase of PRACE receives funding from the EU's Seventh Framework Programme (FP7/2007-2013) under grant agreement RI-312763 and from the EU's Horizon 2020 Research and Innovation Programme (2014-2020) under grant agreements 653838 and 730913. For more information, see [www.prace-ri.eu](http://www.prace-ri.eu)

**About RIKEN AICS:**

RIKEN is one of Japan's largest research organizations with institutes and centers in locations throughout Japan. The Advanced Institute for Computational Science (AICS) strives to create an international center of excellence dedicated to generating world-leading results through the use of its world-class supercomputer "K computer." It serves as the core

of the “innovative High Performance Computing Infrastructure(HPCI)” project promoted by the Ministry of Education, Culture, Sports, Science and Technology.  
<http://www.aics.riken.jp/en/>

**About XSEDE:**

The Extreme Science and Engineering Discovery Environment (XSEDE) is the most advanced, powerful, and robust collection of integrated digital resources and services in the world. It is a single virtual system that scientists can use to interactively share computing resources, data, and expertise. XSEDE accelerates scientific discovery by enhancing the productivity of researchers, engineers, and scholars by deepening and extending the use of XSEDE’s ecosystem of advanced digital services and by advancing and sustaining the XSEDE advanced digital infrastructure. XSEDE-2 is a five-year, \$110-million project and is supported by the National Science Foundation. For more information, see [www.xsede.org](http://www.xsede.org).