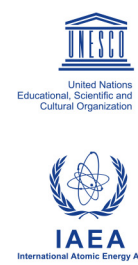




The Abdus Salam
**International Centre
for Theoretical Physics**
www.ictp.it



Workshop on Accelerated High-Performance Computing in Computational Sciences

25 May – 5 June, 2015

(Miramare - Trieste, Italy)

The Abdus Salam International Centre for Theoretical Physics is organizing a two week Workshop on Accelerated High-Performance Computing in Computational Sciences to be held at ICTP (Trieste, Italy) from May 25th to June 5th, 2015.

Efficient support for parallel computational units (SSE/AVX units, GPUs and similar) into scientific applications requires explicit consideration of aspects like the ease of deployment, administration and resource management as well as the capability and flexibility of programming interfaces and models, the degree of available acceleration and its portability across devices, and the overall cost and effort required. While a large variety of accelerated hardware is readily available to scientists, its utilization in scientific computing and corresponding porting efforts are often limited by lack of training and insight into the underlying technology. This workshop aims to give an overview on such hybrid compute systems from deployment over programming to effective utilization. The workshop's program is composed of a set of lectures and hands-on sessions across three main topic:

1. Installation, administration and operations of add-on accelerator devices
2. Effective software development for accelerated/hybrid computing architectures
3. Porting strategies for existing scientific applications to accelerators and performance analysis of such accelerated codes

It is intended to provide practical help that specifically addresses the needs of scientists aiming to incorporate accelerator support into their application(s), or accelerator hardware into their HPC facilities they operate, or are having difficulties to obtain the expected boost while running their applications on accelerators or have to disseminate knowledge to users that are lacking experience in how scientific applications need to be implemented on modern hardware.

Participation

Applicants from all countries that are members of the United Nations, UNESCO or IAEA may attend. As a rule, travel and subsistence expenses of the participants should be borne by their home institutions. Every effort should be made by candidates to secure support for their fare (or at least half-fare). However, limited funds are available for some participants, who are nationals of, and working in, a developing country.

The workshop is aimed at scientists and researchers that are part of a scientific community planning to incorporate accelerator based systems into their research computing environment. Particular preference will be given to applicants that are involved with managing local compute facilities, developing scientific software application and end users that are local computational science community leaders. In this case we particularly target lecturers or faculty that demonstrate a real commitment to disseminate HPC knowledge within a given scientific community. As it will be conducted in English, participants should have an adequate working knowledge of this language.

There is no registration fee.

HOW TO APPLY FOR PARTICIPATION

The Online Application can be accessed at the activity website: <http://indico.ictp.it/event/a14302/>. Comprehensive instructions will guide you step-by-step on how to fill out and submit the application form.

The Application includes a **brief questionnaire** to be filled in and uploaded. Applications without the completed questionnaire will not be considered.

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DEADLINE
to request participation

15 March 2015

