

# WORKSHOP ON COMPUTATIONAL SCIENCE INFRASTRUCTURE AND APPLICATIONS FOR ACADEMIC DEVELOPMENT IN THE ICTP

## 28 September - 9 October 2015

Miramare, Trieste, Italy

#### INTRODUCTION

The Abdus Salam International Centre for Theoretical Physics is organizing a "Workshop on Computational Science Infrastructure and Applications for Academic Development" to be held at the ICTP, Trieste, Italy from 28 September to 9 October 2015.

A growing trend in scientific and academic research is the use of simulation, modeling and data processing on computing facilities as an alternative or enhancement to experimental work. There is also a growing complexity of problems and associated software used for scientific and academic research work as the overall scientific output is related to the computing capacity. High Performance Computing (HPC) facilities such as Linux based commodity clusters are frequently employed for scientific and academic research work because of low cost, general purpose and high flexibility.

Designing and building HPC facilities using commodity components today requires identifying and matching the characteristics of components to the requirements of the intended set of applications in order to obtain optimal or better performance, while also paying attention to advancements in technology.

This hands-on workshop focuses on sharing and expanding on the ICTP experiences on building, using and maintaining Linux based HPC/GPU commodity clusters on different continents for scientific applications including Regional Climate Model (RegCM) & Quantum Espresso (QE).

Requirements: basic knowledge of Linux, shell environment and one or more HPC resource management system.

#### PARTICIPATION

System administrators, IT support staff, scientists and students from all countries, which are members of the United Nations, UNESCO or IAEA, may attend the School. Preference will be given to those who are actively supporting HPC users (of RegCM, Quantum Espresso or similar software) or undertaking HPC related research work in their home institutions. As it will be conducted in English, participants should have an adequate working knowledge of this language. 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, and who are not more than 45 years old. Such support is available only to those attending the entire activity. There is no registration fee.



Ivan Girotto, ICTP Clement Onime, ICTP Uli Singe, ICTP



**HOW TO APPLY FOR PARTICIPATION:** The online application form can be accessed at the activity website:

#### http://indico.ictp.it/event/a14303/

Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit online the application. During the registration process, applicants will be asked to **answer a questionnaire**. **Applications without the supporting documentation will not be considered**.

#### ACTIVITY SECRETARIAT: E-mail: smr2761@ictp.it

### **APPLICATION DEADLINE**

15 July 2015