

Workshop on Porting Scientific Applications on Computational GRIDs

6 - 17 February 2006

Miramare, Trieste, Italy

PURPOSE AND NATURE

Grid computing is rapidly establishing itself as the fundamental tool for computational science in the next years. The grid middleware is now joining together computational resources, geographically distributed as a whole unique system of quite significant power, and provides the tools to share these resources in a controlled fashion: individuals or institutions with a shared goal can form a "Virtual Organization", that allows a range of collaborative problem-solving and resource-breaking strategies.

MAIN OBJECTIVES

The Workshop aims at offering an opportunity to learn how grid computing works to computational scientists from different areas, and to discuss and experiment in detail:

- 1) the architectural and programming constraints that the grid paradigm imposes on applications;
- 2) the functional and computational requirements that their applications present to the grid infrastructure.

PROGRAMME

The Workshop will comprise two different actions: the first four days will be spent in installing a local grid testbed. All the services will be installed and configured by the participants with the help of speakers and tutors. The rest of the Workshop will then be devoted to porting a list of significant scientific applications on the testbed and on other computational grids as well. A preliminary list of applications includes:

- Condensed Matter Physics Simulation Packages
- Financial and Economical Applications
- Bioinformatics and Biomedicine Applications
- Astrophysical Applications

Suggestions by participants on other related scientific areas and packages can be considered.

PARTICIPATION

Participants will be selected on the basis of their own scientific applications and computational requirements. We are aiming at quite motivated participants and for immediate results at the end of the Workshop. Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the Workshop. As it will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend. As a rule, travel and subsistence expenses of the participants should be borne by the home institution. 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 for those who attend the entire activity. There is no registration fee.

The **Application Form** is obtainable from the ICTP WWW server: http://cdsagenda5.ictp.it/full_display.php?smr=0&ida=a05191 (which will be constantly up-dated) or from the activity Secretariat. It should be completed and returned before **30 September 2005** to:

Workshop on Porting Scientific Applications on Computational GRIDs (smr1739)
the Abdus Salam International Centre for Theoretical Physics
Strada Costiera 11, 34014 Trieste, Italy.

or

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TOPICS

GRID Middleware

GRID Resource Management

GRID Data Management
and Security

Parallel Computing on the
GRID

Strategies for Porting
Scientific Codes on the GRID

DEADLINE

for requesting participation

30 September 2005

