PATC Course: Programming ARM based Prototypes

Objectives

- Get a comprehensive view of the architecture of the heterogeneous ARM-based platforms deployed in the framework of the Mont-Blanc project, including ARM multicore clusters based on mobile and server technology.
- Allow attendees to compile and test scientific codes on innovative ARM-based systems with the support of Mont-Blanc experts.
- Understand and correlate performance and power consumption figures of scientific codes.

Topics:

High performance computer architecture: The architecture of several ARM-based HPC platforms, deployed and tested during the last four years of research and development within the Mont-Blanc projects will be presented.

Tools for compilation, evaluation, optimization: A complete software stack for performing scientific computing on ARM-based systems, including compilers, performance libraries and performance analysis tools will be made available.

Low-Power Solutions - Monitoring and investigation of the power consumption of scientific codes running on innovative ARM-based platforms will be possible

Requirements

Standard HPC users, with some knowledge in ARM CPU/GPU architecture (recommended, but not required).
Academic Staff

Barcelona Supercomputing Center on behalf of the Mont-Blanc 3 consortium.

Filippo Mantovani - post-doc at the Barcelona Supercomputing Center (BSC).

Daniel Ruiz - Developer at the Barcelona Supercomputing Center (BSC).

Enrico Calore - post-doc at the University of Ferrara (Italy) and visitor at the Barcelona Supercomputing Center (BSC).

Materials

INTELLECTUAL PROPERTY RIGHTS NOTICE:

• The User may only download, make and retain a copy of the materials for his/her use for non-commercial and research purposes.

• The User may not commercially use the material, unless has been granted prior written consent by the Licensor to do so; and cannot remove, obscure or modify copyright notices, text acknowledging or other means of identification or disclaimers as they appear.

• For further details, please contact BSC?CNS patc [at] bsc [dot] es

Further information

All PATC Courses at BSC do not charge fees.
NOTE: PLEASE BRING YOUR OWN LAPTOP.

http://montblanc-project.eu/

Recommended Accomodation: Please follow the link for map of some local hotels.
CONTACT US for further details about MSc, PhD, Post Doc studies, exchanges and collaboration in education and training with BSC.
For further details about Postgraduate Studies in UPC - Barcelona School of Informatics (FiB), visit the website.

Sponsors: BSC and PRACE 4IP project are funding the PATC @ BSC training events.
If you want to learn more about PRACE Project, visit the website.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación