PATC Course: Earth Sciences Simulation Environments

Objectives

The objective of this practical supercomputing course is to cover the basics of high-performance computing (HPC) environment oriented toward Earth Sciences applications, specifically weather and climate modeling. Participants will learn and gain experience about how to access an HPC facility, install Earth Science models and related utilities, run test cases, monitor an execution of supercomputing jobs in batch mode, analyze and visualize model results, etc.

More precisely, the course will cover:

- Introduction to Earth Science fundamentals and modeling
- Basic usage of an HPC environment: shell, compilers, libraries, file systems, queuing system, etc.
- Build and configure a targeted Earth Science application (NMMB/BSC Model)
- Execute and monitor numerical experiment
- Analyse and visualize model outputs

Learning Outcomes: After completing this course the participants will gain basic know-how about accessing, building, running, and analyzing a set of Earth Sciences numerical models. Furthermore, the students will obtain a general knowledge on Earth Sciences applications within an HPC environment. The course aims to provide basic HPC skills for future Earth Sciences modelers and HPC users in general.

Requirements

Prerequisites: *Fortran, C or C++* programming. All examples in the course will be done in C. Attendants can bring their own applications and work with them during the course for parallelization and analysis.

Registration for this course is available here

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

Comments:

Please fill in the **evaluation form** by following **the link.**

Recommended Accomodation:

Please follow the link for map of some local hotels.

Contact Us:

CONTACT US for further details about MSc, PhD, Post Doc studies, exchanges and collaboration in education and training with BSC.
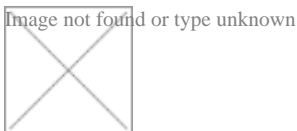For further details about Postgraduate Studies in UPC - Barcelona School of Informatics (FiB), visit the website.

Sponsors:

BSC and PRACE 3IP project are funding the PATC @ BSC training events.
If you want to learn more about PRACE Project, visit the website.

[Materials](#)

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

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