

[ONLINE] Earth Sciences Simulation Environments @ BSC

Tuesday, November 9, 2021 - Thursday, November 11, 2021

Scientific Program

Agenda:

Day 1 (Nov. 09) – 4.5h

10:00-10:15 Welcome and introduction of the BSC Earth Sciences Department. (Francisco Doblas-Reyes, Head of BSC-ES Department)

10:15-10:30 Technical and logistic information. (Hervé Petetin and Vladimir Lapin)

10:30-11:00 Introduction to earth science fundamentals and modelling. (Eleftheria Exarchou)

11:00-11:30 Break

11:30-13:00 Introduction to Linux and HPC, BSC facilities, PRACE and RES + preparation/checks for hands-on tutorial after lunch break (Mario Acosta)

13:00-14:00 Lunch break

14:00-16:00 HPC hands-on tutorial. At the end of this tutorial, the students will be able to compile and execute jobs on Mare Nostrum 4. (Mario Acosta, Miguel Castrillo and Hervé Petetin and Vladimir Lapin)

Day 2 (Nov 10) – 3.5h

9:30-10:00 Lecture on the EC-EARTH climate model. (Eleftheria Exarchou)

10:00-10:30 Lecture on the NMMB-MONARCH atmosphere chemistry model. (Enza di Tomaso and Jan Mateu)

10:30-11:00 Lecture on setting up and running the NMMB-MONARCH model with Autosubmit. (Francesca Macchia and Gilbert Montane)

11:00-11:30 Break

11:30-13:30 Model hands-on tutorial. Students will run a prepared case. (Francesca Macchia, Gilbert Montane, Hervé Petetin and Vladimir Lapin)

Day 3 (Nov 11) – 3h

10:00-11:00 Introduction to analysis and visualisation tools for model outputs (s2dverification, MapGenerator, CDO, NCO, panoply, ncview). (Francesco Benincasa)

11:00-11:30 Break

11:30-13:30 Analysis hands-on tutorial. Students will apply tools for analysis and visualisation to the outputs created the day before. (Amalia Vradi, An-Chi Ho, Nuria Perez, Hervé Petetin and Vladimir Lapin)

END of COURSE