DAY 1 (Feb. 27) 9am - 5pm

**Session 1 / 9:00 am – 1:00 pm (2:45 h lectures, 45’ practical)**

09:00h - 09:30h Introduction to BSC, PRACE PATC and this training (David Vicente)

09:30h - 10:30h MareNostrum 4 – the view from System administration group (Javier Bartolomé)

10:30h – 11:00h COFFEE BREAK

11:00h - 11:30h Deep Learning and Big data tools on MN4 (Carlos Tripiana)

11:30h - 12:15h How to use MN4 – Basics: Batch system, file systems, compilers, modules, DT, DL, BSC commands (Félix Ramos, Francisco González, Ricard Zarco, Helena Gómez)

12:15h - 13:00h Hands-on I (Oscar Hernandez, Félix Ramos, Francisco González, Ricard Zarco, Helena Gómez)

13:00h - 14:30h LUNCH (not hosted)

**Session 2 / 2:30pm – 5:15 pm (3:30 h practical)**

14:30h - 15:00h How to use MN4 – HPC architectures (David Vicente)

15:00h - 16:00h How to use MN4 – Parallel programming: OpenMP, Hands-on II (Guillermo Oyarzún, Jorge Rodríguez)

16:00h - 16:15h COFFEE BREAK

16:15h - 17:00h How to use MN4 – Parallel programming: MPI, Hands-on II (Guillermo Oyarzún, Jorge Rodríguez)

17:00h - Adjourn

DAY 2 (Feb. 28)

**Session 3 / 9:00am – 1:00 pm (2 h lectures, 1:30 h practical)**

09:00h - 09:30h Optional: Doubts + Continue previous hands-on + Tunning your app (David Vicente, Jorge Rodríguez)

09:30h - 10:00h How can I get resources from you? - RES (David Vicente)
10:00h - 10:30h How can I get Resources from you? - PRACE (Cristian Morales)

10:30h - 11:00h COFFEE BREAK

11:00h - 11:30h Debugging on MareNostrum, from GDB to DDT (Oscar Hernandez, Cristian Morales)

11:30h - 12:30h Hands-on III – Debugging your application (Oscar Hernandez, Cristian Morales)

12:30h - 13:00h Wrap-up: UserPortal. Can we help you in your porting? How? when? (Carlos Tripiana, David Vicente)

13:00h - Adjourn

END of COURSE

Barcelona Supercomputing Center - Centro Nacional de Supercomputación