PRACE Advanced Training Centres (PATCs)

BSC - Barcelona Supercomputing Center (Spain)
CSC - IT Center for Science (Finland)
CINECA - Consorzio Interuniversitario (Italy)
EPCC at the University of Edinburgh (UK)
GCS - Gauss Supercomputing Center (Germany)
MdS - Maison de la Simulation (France)

Programme: August 2016 to January 2017

August 2016

- Advanced OpenMP [EPCC]
- GPU Programming with CUDA [EPCC]

September 2016

- High Performance Molecular Dynamics [CINECA]
- Introduction to CINECA HPC System [CINECA]
- Introduction to High Performance Computing with C [CSC]
- Introduction to High Performance Computing with Fortran [CSC]
- Advanced MPI [EPCC]
- Object-Oriented Programming with Fortran [EPCC]
- Single node performance optimisation [EPCC]
- Advanced Fortran topics [GCS]

October 2016

- Parallel Programming Workshop [BSC]
- Python for computational science [CINECA]
- Data Intensive Analyses [CSC]
- Introduction to Parallel Programming [CSC]
- Practical Software Development [EPCC]
- Advanced Parallel Programming with MPI 3.1 [GCS]
- Code optimization and debugging [MdS]
- Mastering GPU-Acceleration on OpenPOWER Platform for Optimal Application Performance [MdS]

November 2016

- Earth science simulation environments [BSC]
- Debugging and Optimization of Scientific Applications [CINECA]
- HPC Methods for Computational Fluid Dynamics and Astrophysics [CINECA]
- Introduction to Parallel Computing with MPI and OpenMP [CINECA]
- Hybrid MPI/OpenMP Programming [MdS]

December 2016

- GPU Programming with OpenACC [CSC]
- Node-level Performance Engineering [GCS]
- Programming on GPUs [MdS]

January 2017

- Administration of Petaflop Machine [BSC]
- Material science codes on innovative HPC architectures: targeting Exascale [CINECA]
- Python in High-Performance Computing [CSC]
- Efficient Parallel IO on ARCHER [EPCC]
- Introduction to hybrid programming in HPC [GCS]
- Advanced Visualization with Paraview [MdS]
- Parallel linear algebra [MdS]

www.prace-ri.eu

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Partnership for Advanced Computing in Europe

Programme: February 2017 to July 2017

February 2017

- Big Data Analytics [BSC]
- HPC Simulations for Science and Engineering [BSC]
- Programming Distributed Systems (COMPSs) [BSC]
- 13th Advanced School in Parallel Computing [CINECA]
- Advanced Parallel Programming [CSC]
- High Performance Metagenomics [CSC]
- Data Analytics with HPC [EPCC]
- Intel MIC Programming Workshop [GCS]
- Parallel filesystems and parallel IO libraries [MdS]

March 2017

- Introduction to simulation environments for Life Sciences [BSC]
- Advanced Fortran Programming [CSC]
- Spring School in Computational Chemistry 2015 [CSC]
- Developing scalable scientific applications with MPI [EPCC]
- Software Carpentry [EPCC]
- OpenMP and OpenACC GPU Directives for Parallel Accelerated Supercomputers [GCS]
- Parallel I/O and Portable Data Formats [GCS]
- VI-HPS Tuning Workshop [GCS]
- C/C++ Multicore Application Programming [MdS]

April 2017

- Programming Petaflop Machine [BSC]
- Advanced Threading and Optimization [CSC]
- Manycore programming [EPCC]
- Advanced Fortran for Scientific Computing [GCS]
- Advanced Topics in HPC [GCS]
- GPU Programming with CUDA [GCS]
- Advanced Usage on CURIE: parallelism, optimization, IO, tools [MdS]

May 2017

- Heterogeneous Programming on GPUs with MPI + OmpSs [BSC]
- Perfromance Analysis and Tools [BSC]
- Systems Workshop: Programming ARM based prototypes [BSC]
- HPC Methods for Engineering Applications [CINECA]
- Introduction to Scientific and Technical Computing in C [CINECA]
- Scientific Python [EPCC]
- Single-sided Communications [EPCC]
- Uncertainty quantification [MdS]
- VI-HPS Tuning Workshop [MdS]

June 2017

- Introduction to Programming in CUDA [BSC]
- School on Scientific Data Analyses and Visualization [CINECA]
- Parallel Computing Summer School [EPCC]
- Efficient parallel programming with GASPI [GCS]
- High-Performance Computing with Python [GCS]
- Intel MIC Programming Workshop [GCS]
- Introduction to Unified Parallel C (UPC) and Co-Array Fortran (CAF) [GCS]
- Node-level Performance Engineering [GCS]
- Runtime systems for heterogeneous platform programming [MdS]

July 2017

- PUMPS Summer School [BSC]
- Performance Analysis Workshop [EPCC]

Find out more about PRACE training activities at www.training.prace-ri.eu