PRACE Advanced Training Centers

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Initial PRACE Advanced Training Centers (PATC):

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

+ 4 PRACE Training Centers (PTC):

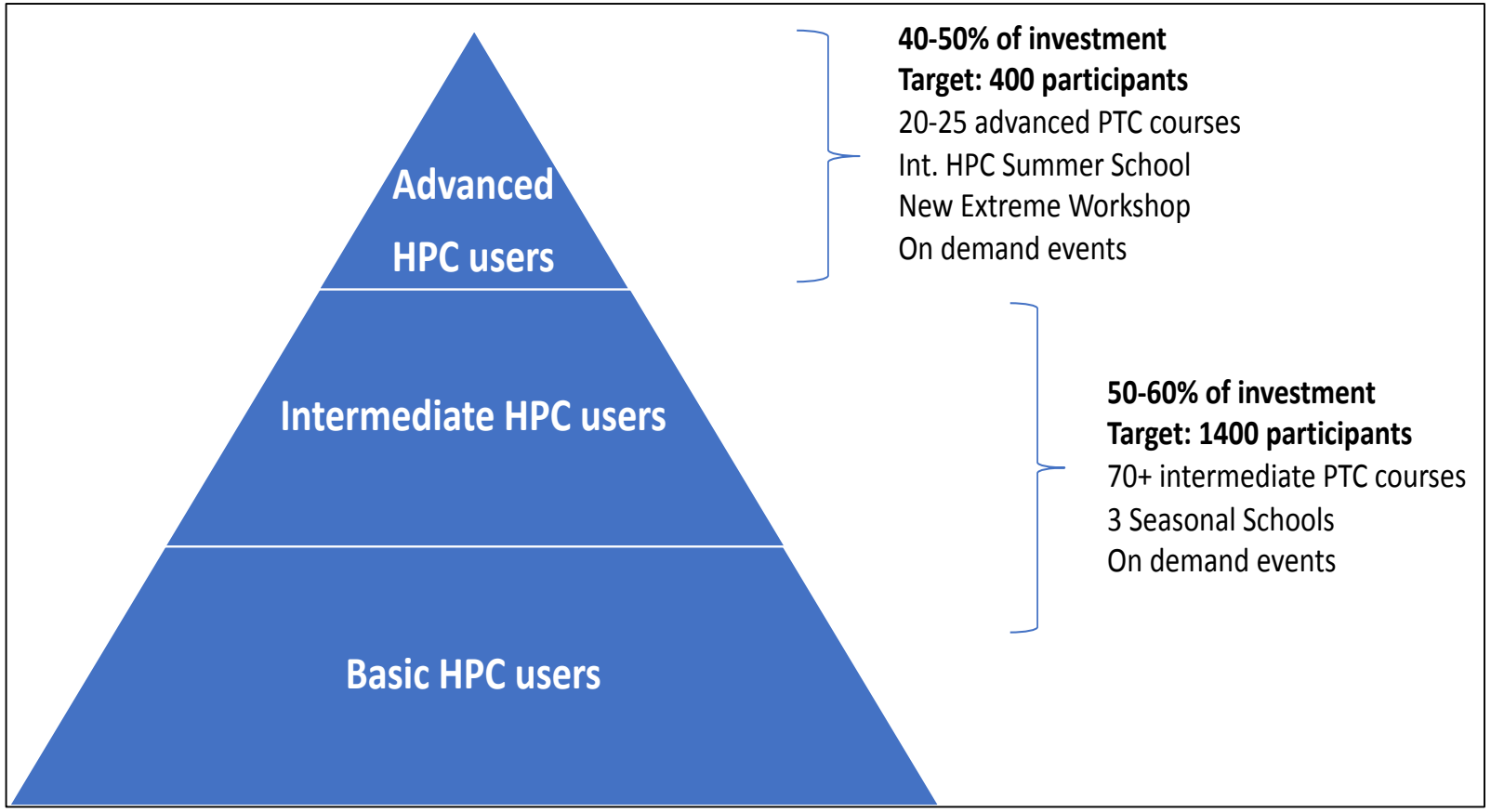
- IT4I – National Supercomputing Center VSB Technical University of Ostrava (Czech Republic)
- GRNET – Greek Research and Technology Network (Greece)
- ICHEC – Irish Centre for High-End Computing (Ireland)
- SURFsara (The Netherlands)

Mission of PTCs

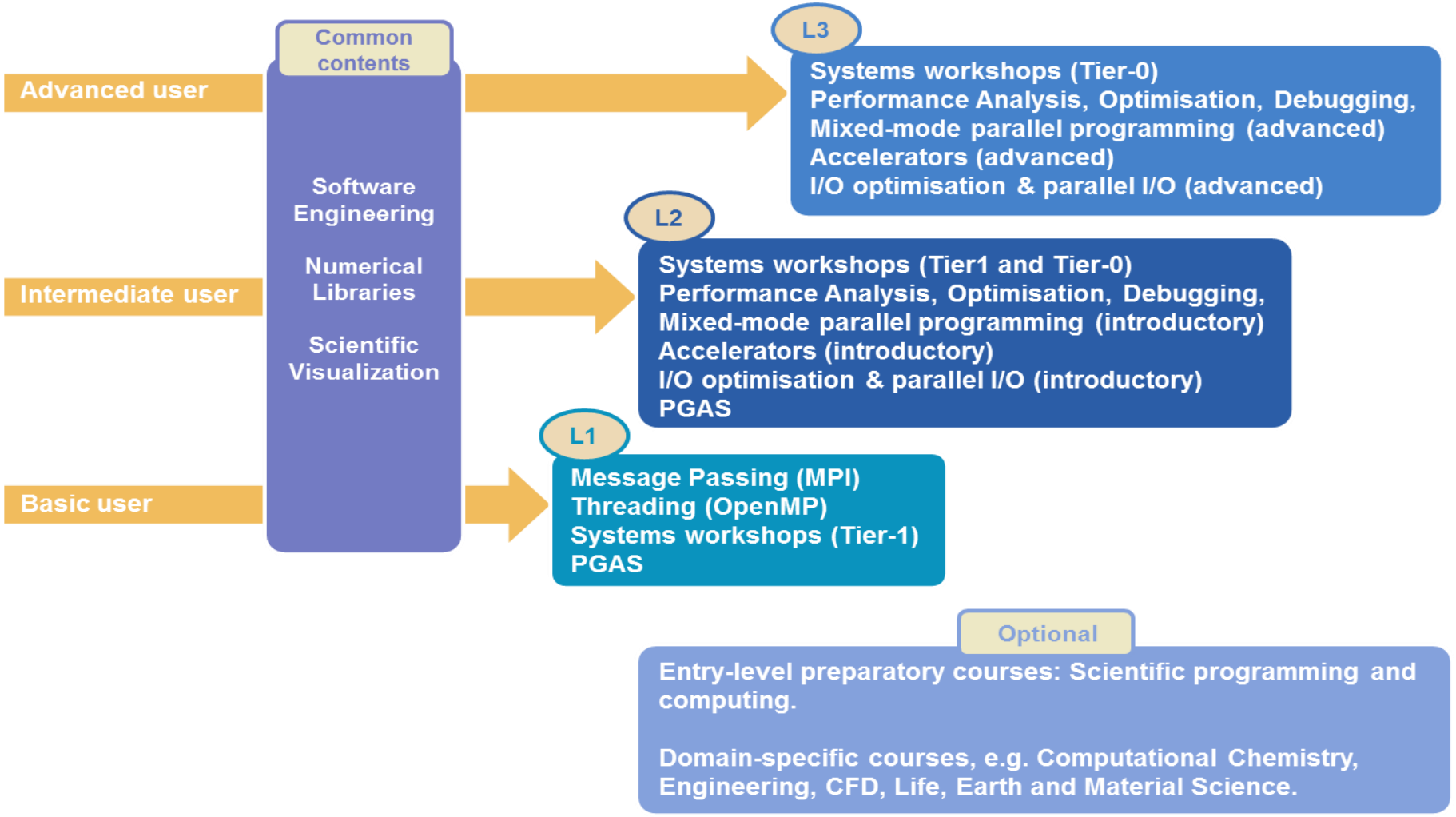
- Carry out and coordinate training and Training Centres education activities that foster the efficient usage of the infrastructure available through PRACE.

More than 100 training events per year

PRACE Training Strategy



Generic PRACE learning paths

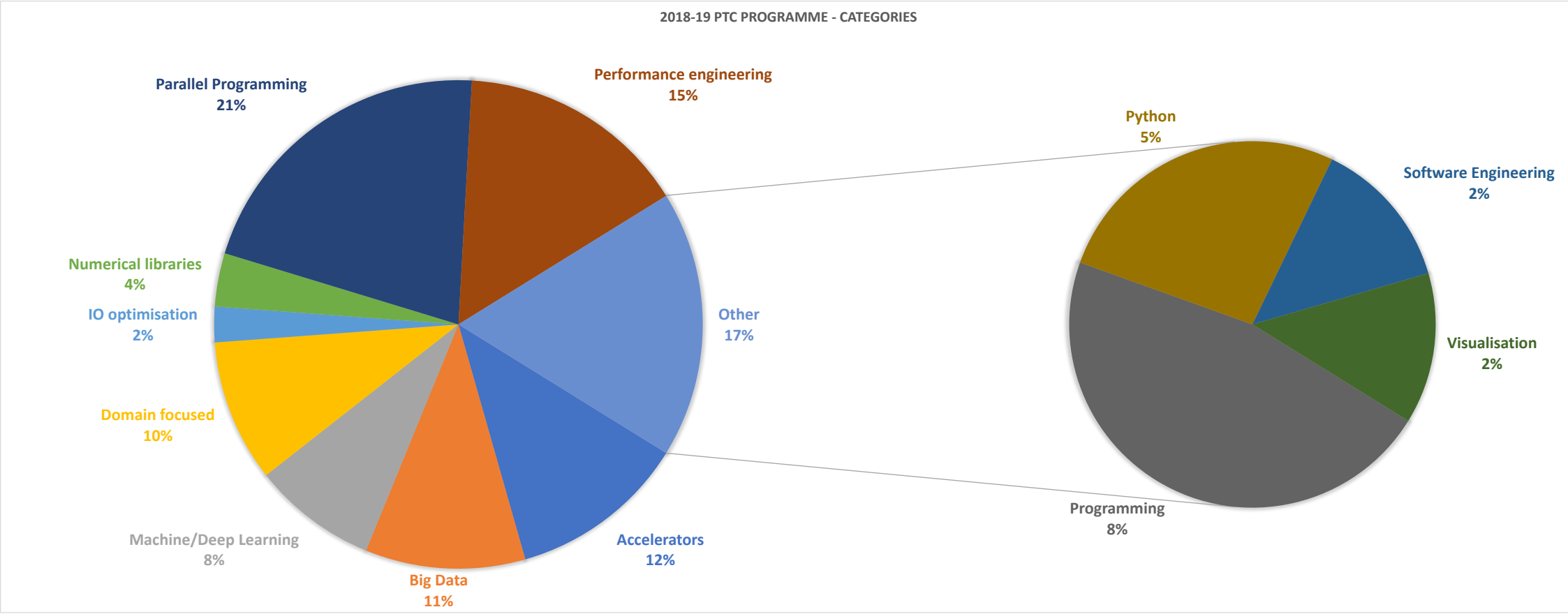


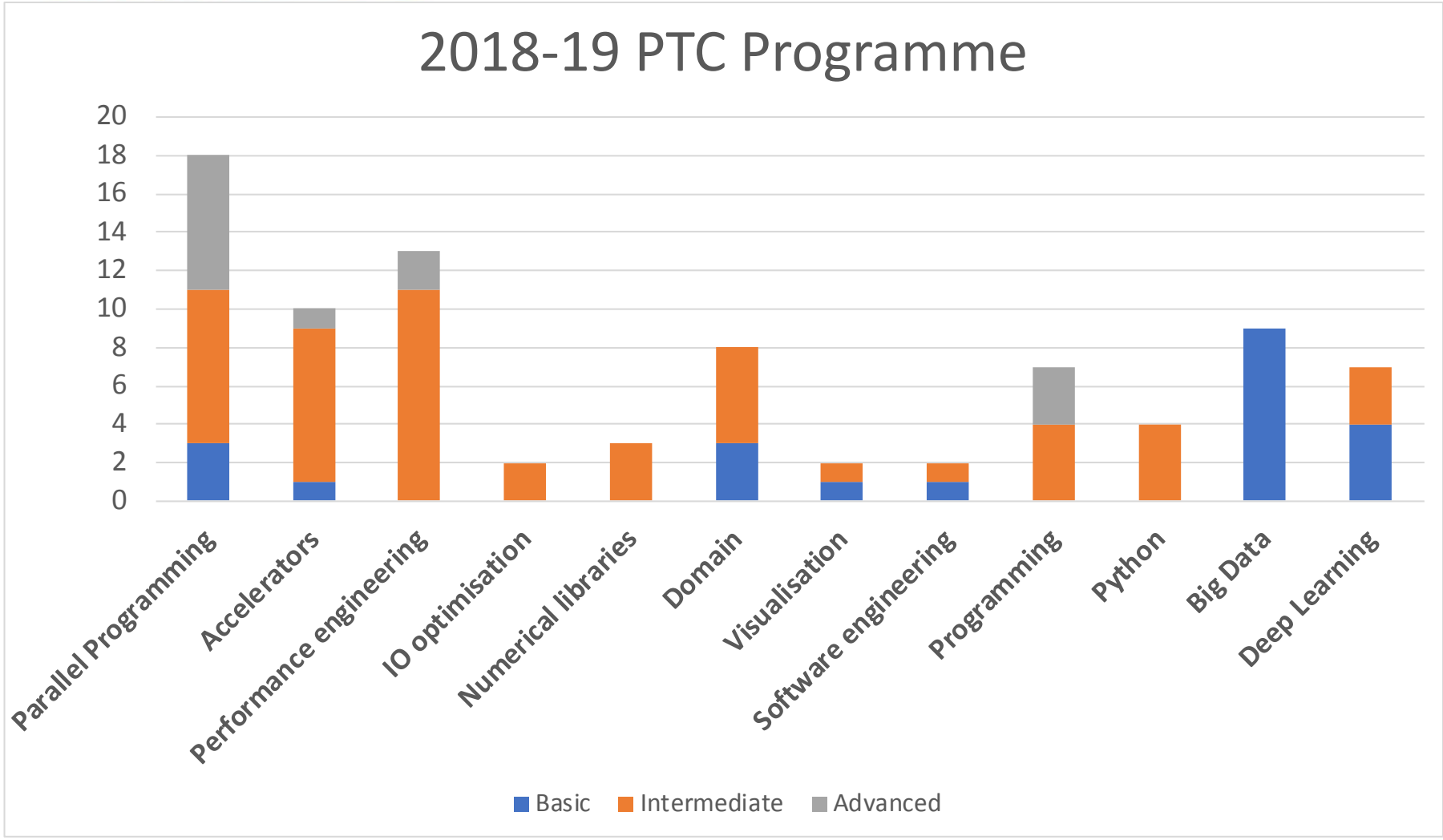
Training	Type
Productivity tools for High Performance Computing @IT4I	Performance tools
Data, lights, camera, action! Scientific visualization done beautifully @SURFsara	Visualization
Parallel and GPU Programming in Python @SURFsara	GPU Programming
Parallel Programming Workshop (Train the Trainer) @ HLRS	Parallel Programming
Parallel Programming Workshop (MPI, OpenMP and advanced topics) @ HLRS	Parallel Programming
Parallel Programming Workshop @ BSC	Parallel Programming
29th VI-HPS Tuning Workshop @ Romeo / MdlS	Performance tools
Parallel Design Patterns @ EPCC at University of Oxford	Parallel Programming
Analyzing large datasets with Apache Spark @ CSC	Big Data
Debugging and Optimization of Scientific Applications @CINECA	Debugging and Performance tools
Introduction to Parallel Programming @GRNET	Parallel Programming

Training	Type
Fortran modernization workshop @ MdlS	Programming (with Fortran)
GPU Programming with CUDA @ EPCC at Imperial College London	GPU programming
Earth Sciences Simulation Environments @ BSC	Thematic workshop - Earth science
Data science with R @ CINECA	Programming (with R)
HPC methods for Computational Fluid Dynamics and Astrophysics @ CINECA	Thematic workshop – Fluid Dynamics and Astrophysics.
High Performance Bioinformatics @ CINECA	Thematic workshop – Bioinformatics
Programming Distributed Computing Platforms with COMPSs @ BSC	Parallel Programming (with COMPSs)
Big Data Analytics @ BSC	Big Data
Short course on HPC-based Computational Bio-Medicine @ BSC	Thematic workshop – Bio-Medicine
Systems Workshop: Programming MareNostrum 4 @ BSC	Parallel Programming
Introduction for Simulation Environments for Life Sciences @ BSC	Thematic workshop – Life Science
Spring School in Computational Chemistry 2019 @ CSC	Thematic workshop – Chemistry

Training	Type
Introduction to OpenACC @ BSC	GPU Parallel Programming
Introduction to CUDA Programming @ BSC	GPU Parallel Programming
Performance Analysis and Tools @ BSC	Performance tools
Heterogeneous Programming on GPUs with MPI + OmpSs @ BSC	GPU Parallel Programming
Introduction to Heterogeneous Memory Usage @ BSC	Programming – Specific for heterogeneous Memory usage
Petaflop System Administration; Marenostrum 4 @ BSC	System workshop for System Administrators
Heterogeneous Programming on FPGAs with OmpSs@FPGA	Programming for FPGA's

2018-19 Programme - Categories





Basic 26% (22) Intermediate 59% (50) Advanced 15% (13)

THANK YOU FOR YOUR ATTENTION

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