Our team leads cutting-edge research and development around accelerators/coprocessors in HPC. We collaborate closely with the two major accelerator/coprocessor vendors for HPC: NVIDIA and Intel. While we run the BSC/UPC NVIDIA GPU Center of Excellence, we also collaborate with the Intel-BSC Exascale Lab. activities. We organize locally international events such as the PUMPS Summer School, PATC Courses on CUDA/OpenACC, and the Annual BCS/UPC HPC Hackathon, and collaborate in the organization of related international conferences and workshops such as SC, HiPC, SCALE, AsHES, WACCSE, and ROME.

We are also involved in low-level networking and MPI research.

**Objectives**

Our broad mission is driving top-notch research and development around accelerators and communications technology for HPC. This can be framed in three main points:

- Helping vendors advance their hardware architecture and software stack.
- Designing and developing programming models, runtime systems, and libraries supporting accelerated computing and networking.
- Developing and porting coprocessor-accelerated and distributed-memory applications.