

JUWELS: BOOSTER MODULE

LEADERSHIP-CLASS GPU SCALABLE SYSTEM



JUWELS Booster

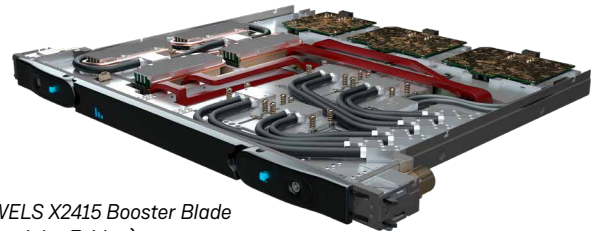
- Adding extreme-scale GPU capabilities to the JUWELS system
- Second module for the JUWELS supercomputer
- Reduced latency and maximized bandwidth between modules by expanding InfiniBand fabric
- Prepared for AI and GPU-heavy workloads
- Project partners: Eviden, NVIDIA, ParTec

System architecture

- 20 Dragonfly+ cells in 39 XH2000 compute racks
- 2x AMD EPYC Rome 24-core CPU with 512 GB main memory per node
- 4x A100 GPUs per node, 25,878,528 CUDA cores in total
- 4x HDR200 HCAs per node
- 150 TB GPU memory, 479 TB main memory

Software

- Unified software stack leveraging EasyBuild
- Rocky Linux
- SLURM batch system with ParaStation resource management
- GCC / NVHPC compilers
- ParaStation MPI / Open MPI



JUWELS X2415 Booster Blade
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BullSequana XH2000
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