

SELVEDAS (182-004)

Services for Large Volume Experiment-Data Analysis utilizing Supercomputing and Cloud technologies at CSCS

Evolution and scalability of e-infrastructure services for the PSI operated large-scale research facilities including Swiss Light Source (SLS), the Swiss Free Electron Laser (SwissFEL), and the Swiss neutron source (SINQ) are essential for researchers from Swiss universities, and a growing number of industrial partners. Ongoing and future progress in accelerator and detector technologies lead to substantial growth of data generated during experiments. PSI, in close collaboration with the Swiss National Supercomputing Centre (CSCS), aims at developing scalable and extensible services for data management, data processing, and data analysis to the Swiss academic user by leveraging high performance computing (HPC), storage, networking as well as cloud technologies. Implementation of PSI target use cases and data-driven workflows will demonstrate not only GPU-enabled application acceleration but also Supercomputing on Demand service for utilizing existing and planned novel HPC resources at CSCS.