

Interactive Learning Environments: Revamping HPC Onboarding for a Seamless User Experience

Tuesday 30 September 2025 16:30 (30 minutes)

The complexity of HPC environments often creates a barrier for new users, leading to inefficient utilization of resources and slower onboarding. Traditional onboarding methods rely heavily on command-line interfaces or dense documentation, which can overwhelm and discourage learners before they even submit their first job.

To bridge this gap between traditional HPC environments and modern learning paradigms, we are leveraging **Open OnDemand**—an interactive web-based interface for HPC clusters. By providing users with a convenient, practical interface, the learning gets much more engaging and effortless. Instead of handing users a manual, this allows us to provide hands-on tutorials that walk learners through fundamental HPC user operations.

This platform allows learners to build competence by engaging directly with the cluster, at their own pace, and without the usual setup overhead. The result is a more intuitive and accessible entry point to HPC. By removing the initial friction and offering a guided learning experience directly on the cluster, we are able to promote best-practices and sustainable use of compute resources.

In this talk, I will provide an outlook of our learning platform and how we are transforming HPC training at HZDR—making it more inclusive, streamlined, and user-focused.

Primary author: SUDHARSHNAM, Varun (HZDR)

Co-authors: SCHULZ, Henrik; RAMAKRISHNA, Kushal (HZDR); LOKAMANI, Mani (HZDR)

Presenter: SUDHARSHNAM, Varun (HZDR)

Session Classification: Talks