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Technical Commissioning of the ESS Accelerator

Tuesday, October 21, 2025 2:00 PM (20 minutes)

The European Spallation Source (ESS) has recently completed beam commissioning up to the tuning beam dump, reaching a proton energy of 800 MeV. This talk will focus on the technical commissioning of the linear accelerator, covering both the normal-conducting and superconducting sections, as well as the testing and integration of superconducting cryomodules. We will describe the phased commissioning process, including high-power RF conditioning of the normal-conducting cavities, superconducting RF (SRF) cavities, and power couplers. Highlights from cryomodule installation, cooldown, and performance testing will be presented. The talk will also discuss integration challenges, cross-functional coordination, and key lessons learned during this phase. Selected results will demonstrate the system's readiness for high-power beam operation and outline the next steps in ESS commissioning.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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