

GFA - PSD Accelerator Seminar

ESS Status and Beam Commissioning Plans

Monday, 4 November 2019, 16.00 h, WBGB/019

Dr. Ciprian Plostinar, ESS

The European Spallation Source (ESS) is currently under construction in Lund, Sweden. When completed, it will become one of Europe's top multi-disciplinary research facilities, a key centre for physical and life sciences research and a major addition to the global neutron science landscape. Building on the experience from other high-power facilities, ESS will aim to deliver a record 5 MW proton beam onto a rotating tungsten target to produce a high flux of neutrons. In the baseline accelerator design, a normal conducting linac is envisaged up to 90 MeV, followed by a superconducting linac up to 2 GeV. Operating at 14 Hz, 62.5 mA and 2.86 ms pulse lengths, ESS is the first long pulse neutron spallation source in the world as well as the most ambitious to date.

Currently, civil engineering works are advancing fast, with the accelerator tunnel already completed. On the technical side, major milestones have been reached, including the installation and commissioning of the Ion Source and LEPT as well as the successful design, prototyping and testing of the first superconducting cavities. In this talk, we will present a detailed overview of the facility, the latest construction status as well as the latest commissioning results.

For more details, contact Davide Reggiani, ext. 3024