GSI FAIR

ACCELERATOR SEMINAR

Recent Advances in Beam Instrumentation for CSNS-II Beam Power Upgrade

Muhammad Abdul Rehman
(Chinese Spallation Neutron Source CSNS)

Description

The Chinese Spallation Neutron Source CSNS accelerator currently operates at a beam power of 170 kW, with plans to upgrade to 500 kW for CSNS-II. This significant increase in beam power presents new challenges for ensuring safe and stable operation, particularly in the precise measurement of beam properties such as position, phase, energy, transverse profile, and beam halo. To address these challenges, beam diagnostics systems are under development, including the Beam Position Monitor (BPM), Ionization Profile Monitor (IPM), Laser Wire Profile Monitor, and Fluorescence Wire Scanner. In this talk, I will provide an overview of the CSNS accelerator complex, discuss the challenges associated with the beam power upgrade, and highlight recent advancements in beam instrumentation for CSNS-II.

Thursday, March 27th, 2025 at 1:30 PM

Seitenraum Hörsaal
(SB1 1.200)
The seminar takes place exclusively in presence

Coordinator: Udo Weinrich
Secretary: Paola Lindenberg

https://indico.gsi.de/event/19722/