GSI FAIR

# ACCELERATOR SEMINAR

## The CSNS-II Beam Power Upgrade and Advances in Beam Instrumentation

**by Renjun Yang (Chinese Academy of Sciences, CSNS)**

### Description

The Chinese Spallation Neutron Source CSNS accelerator currently operates at a beam power of 185 kW, with a plan 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, Cabon Nanotube Fiber (CNTF) based Wire Scanners and Fluorescence Wire Scanner. In this talk, I will provide an overview of the CSNS accelerator complex and discuss the challenges associated with the beam power upgrade.

**Wednesday, May 27th , 2026 at 10:30 AM**

**seminar room theory (SB3.3.170a)**
**The seminar takes place exclusively in presence**

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Coordinator: Claude Krantz
Secretary: Paola Lindenberg

https://indico.gsi.de/event/25070/