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Progress of the Beam Instrumentation development for the CSNS Upgrade

Thursday, October 23, 2025 11:00 AM (30 minutes)

The China Spallation Neutron Source (CSNS) is a major facility for neutron science in China, and is currently operating at an averaged beam power of 170 kW with a beam energy of 1.6 GeV and repetition rate of 25 Hz. In 2024, the CSNS Upgrade project (CSNS-II) was launched aiming to improve the average beam power to 500 kW. In the sequence, a number of new instrumentations will be equipped at the new superconducting linac, RCS and new beamlines. In this talk, we will present an overview of the new diagnostics and the corresponding the high-intensity challenges. We will also report the recent progresses on the RCS beam position monitors, the non-invasive profile monitors, e.g., the ionization profile monitor and laser-wire profile monitor, and the implementation of the novel large-diameter CNT-wire material.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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