

First result of the high repetition operation in J-PARC MR

Tuesday, August 2, 2022 4:00 PM (30 minutes)

The main ring synchrotron (MR) of Japan Proton Accelerator Research Complex (J-PARC) has provided world-leading-intensity protons for the long-baseline neutrino oscillation experiment (T2K). We launched the upgrade plan to increase the beam power for realizing higher precision physics experiments. The beam power for T2K was 515 kW before the upgrade, and we aim at 1.3 MW by 2028. One of the most important upgrades is shortening the repetition period from 2.48 s to 1.32 s by reconstructing the magnet power supplies. We replaced all the power supplies in the long shutdown in JFY2021 and restarted the beam operation in 2022. In this presentation, we will describe the first results of the beam studies with faster cycling. We will also state the further strategy to achieve the new beam power target.

Attendance type

Virtual presentation

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