

A new muon beam line for fundamental physics study in J-PARC

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Since the first beam in 2008, Muon Facility, J-PARC (MUSE) has been operated, and the beam intensity reached at the $3E+6/s$, the most intense pulsed muon beam in the world, under 200-kW proton beam.

From the 2-cm thick graphite target, four secondary muon beam lines are able to be extracted to the experimental areas.

A new beam line is planned to be constructed.

This beamline is designed to have a large acceptance, momentum tunability, and ability of kicker-device and Wien filter use.

This beam line will provide an intense beam for fundamental physics which will occupy the experimental area for a long time in comparison with material-science programs.

The design work and the schedule will be presented.

Summary

A new beam line, which will be constructed in Muon Facility, J-PARC, is dedicated to fundamental physics study.

Details of this new beam line will be presented.

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