

The muon measurements at the FASER experiment

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The FASER experiment is an experiment at the large hadron collider (LHC) measuring neutrinos and searching long-lived particles.

The proton-proton interactions at LHC produce hadrons in forward regions which decays into neutrinos.

These neutrinos are considered as a TeV neutrino beam source in our experiment.

The main uncertainty in the analysis is the neutrino flux because of uncertainty in the hadron productions.

The muons, which are produced at the same time from these hadrons, are measured at the FASER site.

The measurement of muons might have good information to reduce uncertainty in the neutrino flux. The measurement is also good for studying the characterization of the collider beamline.

In this poster, we report the measurement of muons by the FASER experiment and its prospects.

Poster prize

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