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Current Status of the COMET Experiment

Friday, 7 July 2023 14:00 (25 minutes)

The COMET experiment at J-PARC aims to search for charged lepton flavor violation (cLFV) process with μN⟶eN decay. The physics goal of the experiment is to reach the single event sensitivity (S.E.S) at 2.6×10^{-17}, which is about four orders of magnitude better than the latest experimental limit. The experiment will produce a high-intensity muon beam with the new bunched slow extraction technique; thus, the properties of the beam remain unknown to us. For a better understanding of the muon beam, we performed the Phase-alpha commissioning by carrying out a low beam intensity run in March 2023. Several detectors were installed downstream of the beamline, and we have got some preliminary results with Phase alpha’s data, which will be shown, together with the current preparation status of the COMET Phase-I experiment, in this talk.

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