

Abstract for WIN 2023

Talk: Current Status of COMET Experiment

The COMET experiment at J-PARC aims to search for charged lepton flavor violation (cLFV) process via $\mu N \rightarrow e N$ channel. 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 slow extraction technique; thus, the property of the beam remains unknown to us. For 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 in this talk.