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HEPHY-SMI seminar

on fundamental interactions and symmetries

Search for Muon to Electron Conversion at J-PARC-COMET Experiment

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ABSTRACT:

Muon to electron conversion in a muonic atom is a process of charged lepton flavor violation (CLFV). The COMET experiment aims to search for muon to electron conversion at J-PARC with single-event sensitivity of 3×10^{-17} , which is about 10,000 improvement over the current limit. Recently the COMET experiment has taken a staged approach. COMET Phase-I, as the first phase, aims at a single-event sensitivity of 3×10^{-15} with a partial part of the full muon beam line and a Phase-I dedicated detector in the order of about 10^6 sec. The funds for COMET Phase-I has been approved as the supplemental budget, and the construction will start in 2013. The physics run is expected to start in 2016 or so. The COMET Phase-II will follow immediately. In this talk, I will describe physics motivation of CLFV, and the details of COMET Phase-I / Phase-II, with the present status of Phase-I.

DATE:

Friday, 20.09.2013 - 17:00 s.t.

VENUE:

Stefan Meyer Institute
for subatomic Physics
1090 Wien, Boltzmannngasse 3
Seminarraum 2.08

<http://www.smi.oeaw.ac.at/groups/hephysmiseminar/>



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