

Search for charged lepton flavor violation in J-PARC: COMET experiment

Thursday, 29 August 2019 14:00 (30 minutes)

As the lepton number and lepton flavor are conserved quantities in Standard Model, observation of charged lepton flavor violation (cLFV) process will provide clues on beyond-Standard model theories. COMET is an experiment at J-PARC, Japan, which will search for neutrinoless conversion of muons into electrons in the field of a nucleus ($\mu^- + N \rightarrow e^- + N$); a lepton flavor violating process. The experimental sensitivity goal for this process is order of 10^{-15} for Phase-I and 10^{-17} for Phase-II experiment, which is a factor of 100–10000 improvements correspondingly over existing limits. Recent progresses in facility and detector development will be presented, along with COMET Phase-I and Phase-II experimental schedule.

Working Group

WG4 : Muon Physics

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