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

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COMET is an experiment at J-PARC, Japan, which will search for neutrinoless conversion of muons into electrons in the field of a nucleus (μ - + N \rightarrow e⁻ + N); a lepton flavor violating process. The experimental sensitivity goal for this process is order of 10^{{-15}</sup> for Phase-I and 10^{{-17}</sup> for Phase-II experiment, which is a factor of 100–10,000 improvements correspondingly over existing limits. Recent progresses in facility and detector development are presented, along with COMET Phase-I and Phase-II experimental schedule. The physics and feasibility of searching lepton number violation in the COMET experiment will be also discussed.

What is your topic?

CP and T violation

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