

Status of the Mu2e experiment

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The Mu2e experiment will measure the charged lepton flavor violating (CLFV), neutrino-less conversion of a negative muon into an electron in the field of a nucleus. The process has never been observed, but is predicted to occur in many Beyond the Standard Model scenarios at rates within the reach of the Mu2e experiment. The goal of the experiment is to improve the previous upper limit by four orders of magnitude and reach a single event sensitivity of 3×10^{-17} . Mu2e will operate in a dedicated hall at the Muon Campus of Fermilab; installation has already begun, and detector and beamline commissioning are expected to begin in 2023. A number of years of running will be required to reach our target sensitivity. Research and development tasks have already begun for a proposed extension called Mu2e-II.

What is your topic?

Lepton universality and flavour violation

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