

Mu2e-II An Upgrade of the Mu2e for the Fermilab PIP-II Era

The Mu2e experiment, currently in advance stages of construction, is using a novel technique to search for new physics through lepton flavor violation in the direct conversion of a stopped muon into an electron. The goal is to obtain sensitivities of a factor of 10,000 over existing limits. We discuss an evolution of Mu2e, called Mu2e-II, that would profit from the increased proton intensity provided by the Fermilab PIP-II accelerator upgrade to increase the sensitivity by up to an additional order of magnitude. The opportunities and challenges of harnessing this increased intensity to further the reach of Mu2e will be discussed.

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WG4

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