Abstract Submitted
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Prospects for a High Sensitivity Lepton Flavor-Violating Search at Fermilab JAMES MILLER[1], Boston University — The Mu2e collaboration is proposing to search for coherent, neutrino-less conversion of muons into electrons in the field of a nucleus, with a sensitivity improvement of a factor of 10,000 over existing limits. Such a lepton flavor-violating reaction probes new physics at a scale unavailable by direct searches at either present or planned high energy colliders. The physics motivation for mu2e will be presented, as well as the design of the muon beamline and spectrometer. A scheme by which the experiment can be mounted in the present Fermilab accel-erator complex will be described. Prospects for increased sensitivity from the Project X linac that is being proposed by Fermilab will be discussed.

[1]on behalf of the Mu2e Collaboration

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