

Mu to e gamma search using converted photon

Abstract content

Current search for charged lepton flavor violating decay $\mu \rightarrow e \gamma$ is limited by the accidental background. Future facility such as Project X at Fermilab could provide a much more intensive beam but one needs a more sensitive detector as well. One of the limiting factors in current detectors is the photon energy resolution of the calorimeter. We present a study of a conceptual design of a new detector, using a fast simulation software, that detects converted e^+e^- pairs from signal photons, taking advantage of a much better energy resolution of a charged particle tracking device.

Summary

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