XXVI DAE-BRNS High Energy Physics Symposium 2024



Contribution ID: 432 Type: Postar

Sensitivity of LFV couplings at Muon Collider

We estimate the accuracy with which the coefficient of the lepton flavor violating dimension six operators can be measured at the proposed $\mu^+\mu^-$ collider.

Cuts-based analysis is performed to compute the signal significance at the center of mass energies of 3 and 10 TeV respectively, with an integral luminosity of 10 ab^{-1} . Using the optimal observables method for the kinematic distributions, we study the sensitivity of the effective couplings at the 3-sigma level. We also study the impact of the initial muon beam polarization.

Field of contribution

Phenomenology

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Track Classification: Beyond the standard model