

Measuring lepton number violation at colliders

Tuesday 4 June 2024 17:40 (20 minutes)

Seesaw extensions of the Standard Model explain the observed neutrino masses by introducing right-handed neutrinos with lepton number violating (LNV) interactions. In order for the neutrinos to be collider-detectable they must form almost mass-degenerate pseudo-Dirac pairs. Their tiny mass splitting leads to heavy neutrino-antineutrino oscillations. A measurement of these oscillations can be utilised to determine the amount of LNV introduced by the seesaw. I present minimal viable models and evaluate the potential of current and future collider experiments to observe LNV.

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Session Classification: Parallel Session PL.6