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## Probing Neutrino Mass Models at the LHC through $pp \rightarrow l^+ l^- + E_{\text{miss}}$

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In this work, we investigate the possibility of probing a class of three-loop models for neutrino mass at the LHC with 8 and 14 TeV energies. The existence of lepton flavor violating interactions for singlet charged scalar,  $S_{\pm}$ , that couples to the leptons could induce many processes such as  $pp \rightarrow l^{\pm} l^{\mp} E_{\text{miss}}$ . Using the processes with  $l = e, \mu$ , we found that an inclusive cut on the  $MT_2$  event variable is vital and leads to an effective suppression of the large SM background. Our results show possible detectability of the charged scalars effect, especially at the LHC@14.

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