

Updated Numerical Analysis of eV Seesaw with Four Generations

We extend the so-called “eV seesaw” scenario, where M_R is of eV order, to four lepton generations. The fourth generation gives a heavy pseudo-Dirac neutral lepton, which largely decouples from other generations and is relatively stable. The framework naturally gives 3 active and 3 sterile neutrinos. We update a previous numerical analysis of a 3+3 study of the LSND anomaly, taking into account recent results from the MiniBooNE experiment. In particular, we study the implications for the third mixing angle $\sin^2(\theta_{13})$, as well as CP violation.

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