

A Simple Model for Low Scale Baryogenesis and Neutron-Antineutron Oscillation

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A simple TeV scale model for baryon and lepton number violation is presented, where neutrino mass arises via a one loop radiative seesaw effect and B-violation obeys $\Delta B = 2$ selection rule, leading to observable neutron-antineutron oscillations. The stability of proton is connected to the neutrino mass generation. Matter-antimatter asymmetry is generated in this model via resonant baryogenesis mechanism, which can be realized at either above or below the electroweak scale, independent of the sphaleron processes. A novel six jet plus dilepton signal of this model can be searched for at the LHC.

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