

Probing Baryogenesis using Neutron-Anti-Neutron Oscillation

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Neutron-Anti-neutron ($n\bar{n}$) oscillation is a baryon number violating process that requires physics beyond the Standard model. Future experiments at ESS and DUNE aim to either discover $n\bar{n}$ oscillation or to put more stringent constraints on the oscillation time. We study the impact of such a discovery on different baryogenesis scenarios in an effective field theory framework. We also study the implications of observing the mediators at the LHC and the possibility of falsifying some of the baryogenesis scenarios in the context of some simplified UV complete scenarios.

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