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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 New Physics beyond the Standard model, and will be probed in future experiments at ESS and DUNE. We study the potential consequences of a future n\-$\bar{n}$ oscillation signal for baryogenesis, in an effective field theory framework and for one of the two possible UV complete topologies. We also present a comprehensive prescription for the Boltzmann equation treatment of different baryogenesis scenarios that have a connection to n\-$\bar{n}$ oscillation, and compare them to other low-scale observables such as meson oscillation, as well as the LHC.

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