

Title: Neutrinos and the Matter-Antimatters Asymmetry in the Universe

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Abstract: The discovery of neutrino oscillations provides a solid evidence for nonzero neutrino masses and leptonic mixing. The fact that neutrino masses are so tiny constitutes a puzzling problem in particle physics. From the theoretical viewpoint, the smallness of neutrino masses can be elegantly explained through the seesaw mechanism. Another challenging issue for particle physics and cosmology is the explanation of the matter-antimatter asymmetry observed in Nature. Among the viable mechanisms, leptogenesis is a simple and well-motivated framework. In this paper we briefly review these aspects, making emphasis on the possibility of linking neutrino physics to the cosmological bary asymmetry originated from leptogenesis.

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