

Low-scale Leptogenesis

Saturday 29 April 2023 15:00 (15 minutes)

We introduce a novel, testable low scale baryogenesis scenario involving the CP violating decays of sterile neutrinos. In contrast to the conventional leptogenesis mechanisms we transfer the produced lepton asymmetry into a baryon asymmetry via scatterings with dark matter particles which conserve total baryon and lepton number but violate visible baryon number. We show that the mechanism produces lepton and baryon abundances in agreement with current observational constraints. Finally, we discuss relevant phenomenology and potential signatures.

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Session Classification: Talks