

SO(10)-inspired Leptogenesis with flavour coupling effects

Sunday, 20 April 2025 11:50 (20 minutes)

In the past few decades, leptogenesis has been widely studied as a solution to the matter–antimatter asymmetry problem. However, certain theoretical effects that could alter the predictions have not yet been fully considered. In this talk, I will discuss the impact of flavour coupling effects on the predictions of SO(10)-inspired leptogenesis for low-energy neutrino parameters. I will show that only the first octant is allowed and that a large range of values for the Dirac CP phase is excluded. I will also discuss how flavour coupling effects modify the allowed parameter space in strong thermal leptogenesis, a scenario that assumes a possible pre-existing asymmetry generated in the very early universe.

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