

Thermal effects in CPT and unitarity constraints for higher-order CP asymmetries

Friday 19 July 2024 20:40 (20 minutes)

Unitarity and CPT symmetry constrain the CP asymmetries entering the Boltzmann equation for net particle number generation. These constraints often manifest as cancelations of the leading-order asymmetries in decays and scatterings. In this poster, we consider the asymmetries of seesaw type-I leptogenesis with top-Yukawa corrections. Even when starting with Maxwell-Boltzmann phase-space densities, some of the contributions required by unitarity and CPT symmetry are interpreted as approximations of quantum statistics and thermal-mass effects. The work is based on JCAP10 (2022) 042.

Alternate track

1. Beyond the Standard Model

I read the instructions above

Yes

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