

CP violation for baryogenesis in SMEFT

Wednesday 15 June 2022 13:00 (30 minutes)

The observed baryon asymmetry of the universe requires CP violation beyond the Standard Model for which electroweak baryogenesis is a compelling framework. This can be accommodated in higher-dimensional Yukawa terms in SMEFT. One or several complex Yukawa couplings result in an interesting interplay of requirements for successful baryogenesis as well as constraints from inclusive and differential Higgs boson measurements and electric dipole moments. To determine potentially viable scenarios, I will present the maximal baryon asymmetry realizable within the complementary constraints and their implications for a minimal and maximal New Physics scale of these SMEFT scenarios.

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