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The ν DFSZ Axion model dubbed 2hdSMASH

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The Standard Model (SM) suffers from five shortcomings: Dark Matter, Neutrino masses and mixing, Baryon asymmetry, Strong CP-Problem and Inflation. The latter is regarded as the seeds for structure formation. In this talk, we introduce an inflationary ν DFSZ-type axion model which is dubbed 2hdSMASH (Two-Higgs-Doublet SM * Axion * Seesaw * Higgs-Portal-Inflation). 2hdSMASH aims at giving a complete and unified picture of the universe evolution from the inflationary epoch to today. In particular, we focus on parameter constraints coming from the inflationary epoch which provide in the low energy limit phenomenologically viable scalar masses that can be tested at LHC, HL-LHC or future colliders

Summary

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