

The cosmic evolution of the QCD axion, and lattice simulations

Friday, 17 February 2023 11:10 (30 minutes)

Ab-initio results from QCD topological susceptibility as a function of temperature constrain the freeze-out of the QCD axion, and in turn limit the available parameter space of today's axion coupling and mass. The talk reviews the status of lattice studies, with emphasis on extrapolation to the relevant temperature range. Issues related with the continuum limit of lattice results with physical quark masses are discussed as well.

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Session Classification: Senior Session