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Revisited axion contribution to dark radiation using momentum-dependent evolution

Wednesday 28 May 2025 15:00 (20 minutes)

Axions can be produced via the interactions in the thermal plasma of the early Universe and their contribution to dark radiation can modify the cosmological observables and constrain the axion couplings to SM particles. In my talk I am going to outline an approach to calculate the axion cosmological abundance that goes beyond the approximations widely used in the literature on the topic and demonstrate how it affects the bounds on axion couplings on the example of axion interactions with leptons.

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