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# Cosmic Axion Background: the QCD axion as a hot relic

*Tuesday, 27 July 2021 16:20 (20 minutes)*

QCD Axions can be produced in various ways in the Early Universe by scatterings and decays from Standard Model particles, forming thus a Cosmic Axion Background that contributes to the abundance of relativistic relics ( $N_{\text{eff}}$ ). We review in various setups how this is already constrained by present experiments and how it could be observed by future CMB experiments, in particular focusing on the coupling to quarks and leptons, the bounds on the DFSZ model, and also the connection with the Xenon1T excess.

## Collaboration / Activity

Theory

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