

# Production of Thermal QCD Axions in the Early Universe

*Friday, 5 November 2021 16:00 (30 minutes)*

We study the thermal production of axions over different scales especially around the QCD and electroweak phase transitions in the early universe. We focus on the most motivated axion models (KSVZ and DFSZ) and investigate how the thermal history can influence on the production rate of hot axion as dark radiation. This can lead to predictions for the future measurements of the cosmic microwave background by experiments like CMB-S4.

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