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Stellar Axion Background

Tuesday 9 May 2023 16:30 (15 minutes)

We characterize in detail the diffuse axion background sourced by all the stars in the universe throughout the cosmic history and discuss the feasibility of probing this background via its decay to X-ray. We focus on main sequence stars and base our calculations on the stellar interior profiles from MESA along with recent models of star formation history and stellar initial mass function.

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