Phenomenology 2023 Symposium



Contribution ID: 200 Type: not specified

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.

Primary authors: TANIN, Erwin (Johns Hopkins University); NGUYEN, Ngan

Co-author: KAMIONKOWSKI, Marc

Presenter: NGUYEN, Ngan

Session Classification: Axion III

Track Classification: Axion and ALP