

Searching for long-lived particles at the LHC and beyond: Eighth workshop of the LHC LLP Community



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Probing the High-Quality QCD Axion (12'+3')

Thursday 19 November 2020 17:55 (15 minutes)

Motivated by the Strong CP and the Axion Quality problem, I will consider heavier variants of the QCD axion which has a large and uncharted parameter space where it is long-lived. By focusing on the defining axionic coupling to gluons, I will evaluate the prospect of discovery of GeV-scale axions at the HL-LHC relying on the CMS track trigger upgrade. I will also comment on vetoing possible backgrounds, including those from fake-tracks.

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Session Classification: New ideas