Phenomenology 2025 Symposium



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Type: not specified

Long-lived ALPs from electromagnetic cascades

Tuesday 20 May 2025 17:00 (15 minutes)

I will present some preliminary results from our study on Axion-Like Particles (ALPs) production from electromagnetic showers in beam dump experiments, focusing on SHiP as a relevant benchmark example. Existing projections for SHiP's sensitivity to ALPs have focused on production from either the primary photon beam or the (high-energy) photons produced by $\pi 0 \rightarrow \gamma \gamma$. In this work, we study the subsequent production of axions from the full electromagnetic shower initiated by each of these photons.

Mini Symposia (Invited Talks Only)

Plenary (Invited talks only)

Authors: PLESTID, Ryan; PATRONE, Samuel (California Institute of Technology)Presenter: PATRONE, Samuel (California Institute of Technology)Session Classification: Dark Matter

Track Classification: Dark Matter Theory and Detection