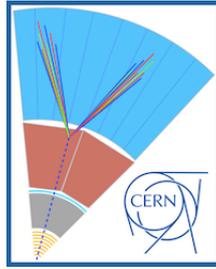


Searching for long-lived particles at the LHC and beyond: Eighth workshop of the LHC LLP Community



Contribution ID: 16

Type: **not specified**

Dark Pion Searches at Colliders and High Intensities (12'+3')

Thursday 19 November 2020 16:35 (15 minutes)

We plan to study the phenomenology and experimental searches of the dark pions, which are the lightest hadrons in a hidden sector confining gauge theory. Such a scenario arises in many extensions of the Standard Model (SM). We consider that the leading interactions between the light hidden sector quarks and the SM particles come from the mixing of the light hidden quarks with heavy electroweak doublet states through Higgs Yukawa couplings, so that the leading portals are the Z and Higgs bosons. The plan is to study their productions and decays, and the search reaches at current and future experimental facilities, including high energy colliders and low energy, high intensity fixed target experiments.

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