

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



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The quirk signal at the FASER (12+3)

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We study the FASER sensitivity to the quirk signal by simulating the motions of quirks that are travelling through several infrastructures from the ATLAS interaction point to the FASER detector. The ionization energy losses for a charged quirk travelling in different materials are treated carefully. Assuming negligible background, the exclusion limits for quirks of four different quantum numbers are obtained for an integrated luminosity of 300 fb^{-1} . The features of the quirk signals at the FASER detector are also discussed.

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