Contribution ID: **43** Type: **not specified**

Disappearing charged tracks for compressed Dark Sectors

Thursday 5 April 2018 14:00 (15 minutes)

While the LHC “mono-X” like searches have a mild (few 100 GeVs) reach for WIMPs due to the small EW cross section and the large V+jets backgrounds, models where dark matter is mostly part of a weak multiplet (Minimal Dark Matter) can be probed via the long-livedness of the electrically charged members of the multiplet. Using the benchmark-case of a weak doublet (pure-Higgsinos in SUSY) I will show how this searches can extend the mass reach at both the LHC and the FCC, provided that one can be sensitive to decay lengths of 10 cm, as possible with the current ATLAS 4-pixel layer setup.I will also discuss the prospects to test the same model with a novel strategy at future electron-proton colliders.

Author: ZURITA, José Francisco (KIT)

Presenter: ZURITA, José Francisco (KIT)

Session Classification: Open Session B)

Track Classification: Default track