Contribution ID: 898 Type: Parallel Talk

Dark Matter searches at LHCb

Thursday, 7 July 2022 15:10 (20 minutes)

The LHCb detector at the LHC offers unique coverage of forward rapidities. The detector also has a flexible trigger that enables low-mass states to be recorded with high efficiency, and a precision vertex detector that enables excellent separation of primary interactions from secondary decays. This allows LHCb to make significant (and world-leading) contributions in these regions of phase space in the search for long-lived particles that would be predicted by dark sectors which accommodate dark matter candidates. A selection of results from searches of heavy neutral leptons, dark photons, hidden-sector particles, and dark matter candidates produced from heavy-flavour decays among others will be presented, alongside the potential for future measurements in some of these final states.

In-person participation

Yes

Primary author: NEUBERT, Sebastian (Bonn University)

Presenter: JOHNSON, Daniel (CERN)

Session Classification: Dark Matter

Track Classification: Dark Matter