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## 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

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