



Contribution ID: 56

Type: **not specified**

LHCb overview and latest results

Monday 2 June 2025 10:10 (25 minutes)

The LHCb detector at the LHC offers unique coverage of forward rapidities. The experiment 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 are predicted by dark sectors that accommodate dark matter candidates. This talk will cover an overview of LHCb searches, with a focus on dark photons and axion-like particles, alongside the prospects for the current Run 3 at the LHC. The talk will also discuss advancements in the GPU-based trigger HLT1 that boosts the sensitivity for these searches.

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Session Classification: Overview talks I