

## Dark Photons at LHCb

*Tuesday 13 September 2016 16:50 (20 minutes)*

Dark photons appear in many well-motivated dark matter scenarios, which leads to a worldwide effort to search for them. In this talk, I will present two novel search methods for dark photons at the LHCb experiment. One is an exclusive search in charm meson decay, and the other is a fully data-driven inclusive search based on di-muon resonances. These searches advance particle physics by showing how LHCb can have sensitivity to large regions of unexplored dark-photon parameter space.

### Summary

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**Session Classification:** Dark Matter & colliders

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