

# Search for Very Rare Decays at LHCb

*Friday 19 July 2024 16:00 (15 minutes)*

At the LHCb Experiment, we search for very rare decays of heavy hadrons containing b or c quarks. Most of these decays occur in the Standard Model (SM) through heavily-suppressed Flavour-Changing Neutral Currents (FCNC) leading to decay rates expected to be as tiny as  $10^{-9}$  or considerably below. These decays offer therefore various possibilities to search for deviations from SM predictions. We have exploited proton-proton collision data collected between 2011 and 2018 with the LHCb detector and have established some of the world's most stringent upper limits on the decay rates of many of these decays. In this talk we will report the results of recent searches and link with the prospects for 2024 data.

## Alternate track

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Yes

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