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Latest B ⟶ μ+ μ- results with the ATLAS detector

Tuesday 9 April 2019 11:30 (15 minutes)

The decay of B mesons into a pair of oppositely charged muons is extremely rare in the Standard Model, due to the suppression of Flavour-Changing-Neutral-Current (FCNC). Their Standard Model prediction is accurate and the experimental signature is very clean, therefore these decays are considered one of the golden channels to test the Standard Model and to look for deviations from its predictions due to New Physics phenomena. The latest analysis performed by the ATLAS collaboration on the dataset collected at center-of-mass energies of 13 TeV in 2015 and 2016 is presented, together with the extrapolation of the sensitivity of the analysis to the full 2015-2018 period as well as the future High Luminosity upgrade of the Large Hadron Collider.

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