

Angular analysis of the decay $\Lambda_b^0 \rightarrow \Lambda \ell^+ \ell^-$ at high q^2 with the LHCb experiment (10'+3')

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To improve the understanding of the differences observed in several different observables of mesonic $b \rightarrow s \ell^+ \ell^-$ transitions, it is important to also study $b \rightarrow s \ell^+ \ell^-$ transitions in baryon decays.

The decay $\Lambda_b^0 \rightarrow \Lambda \ell^+ \ell^-$ is particularly interesting due to the fact that it is the most abundant produced weakly decaying b-baryon. Studying the angular distribution of both the muon and electron decay of $\Lambda_b^0 \rightarrow \Lambda \ell^+ \ell^-$ allows to precisely test the Standard Model of particle physics and provide a novel test of lepton flavour universality with the angular coefficients.

In my talk I will cover the current status of the angular analysis and the prospects of the test of lepton flavour universality with the angular coefficients.

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