Contribution ID: **18** Type: **Parallel talk**

Direct measurement of physical coefficients in the B->πμμ decay

Monday 7 April 2025 16:15 (15 minutes)

With measurements in the b->sll transitions made by the LHCb showing deviations with the Standard Model, a similar measurement on the B->πμμ decay involving a suppressed b->dll transition has been proposed for a potentially more sensitive probe on the new physics. To maximise the experimental sensitivity, an unbinned maximum likelihood fit is applied to the dimuon mass spectrum using the full Run I and Run II datasets. The decay amplitudes are described by an effective field theory (EFT), including both the local and non-local hadronic components. The analysis aims to produce a two-dimensional likelihood profile of the EFT parameters, which can be included in the global fit.

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Session Classification: Collider Physics - Flavour

Track Classification: Collider Physics - Flavour