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Status of Measurements of CKM angle γ with $B_d^0 \to D^{\pm}$

Monday 7 April 2025 16:00 (15 minutes)

The status of the work towards a measurement of the CKM angle γ with $B_d^0 \to D^{\pm}$ decays in the LHCb run 2 data set is presented. The work presented includes signal isolation, time resolution studies, and neutral B meson flavour tagging. Neutral B meson flavour tagging is an integral component of analyses of this kind, which allows for the separation of B_d^0 and $\overline{B}_d^0$ events. This analysis includes first results for use of the new, neural network based, inclusive flavour tagger in parallel with conventional tagging techniques. Measurement of the CKM angle γ is an important avenue for testing the standard model and each new measurement helps us to reach an ever greater level of precision. This measurement will improve the LHCb γ combination, which is currently the world's most precise direct measurement and contains contributions from over 30 measurements.

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