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Baryonic CP violation at LHCb

Tuesday 26 August 2025 11:00 (20 minutes)

The LHCb detector is optimized for performing precision flavour measurements. Thanks to its particle-identification capabilities it is able to fully exploit the potential of the Large Hadron Collider. In this talk, recent results regarding the study of CP violation in (charmless) beauty-baryon decays at LHCb will be presented. The study of these decays is particularly interesting because, prior to the analyses discussed in the talk, CP violation in the baryon sector had never been observed. Moreover, the decays of beauty baryons receive contributions from the same diagrams responsible for the decay of B mesons, where CP violation is indeed well established.

Author: CAPORALE, Marco (Universita e INFN, Bologna (IT))

Co-author: VOS, Keri (Nikhef National institute for subatomic physics (NL))

Presenter: CAPORALE, Marco (Universita e INFN, Bologna (IT))

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