Joint annual meeting of Swiss and Austrian Physical Societies 2017



Contribution ID: 241 Type: Talk

[317] Flavour tagging in pp collisions at LHCb

Wednesday 23 August 2017 18:30 (15 minutes)

Measurements of CP violation and flavour oscillations of neutral B mesons require the knowledge of the meson flavour at the production time.

Flavour tagging algorithms in the LHCb experiment, despite the challenging, harsh environment due to pp collisions, allow to perform such measurements with very high precision.

Recent examples feature world-leading results in the determination of the CKM angle $2\beta_s$ and the weak phase difference ϕ_s , as well as measurements of the CKM angle γ .

Flavour tagging algorithms exploit the correlations between the B meson flavour and different features of the event, and rely on advanced multivariate analysis techniques.

The details of these algorithms are presented, together with their performances.

Author: BATTISTA, Vincenzo (Ecole Polytechnique Federale de Lausanne (CH))

Presenter: BATTISTA, Vincenzo (Ecole Polytechnique Federale de Lausanne (CH))
Session Classification: Nuclear, Particle-and Astrophysics (TASK-FAKT)

Track Classification: Nuclear, Particle- and Astrophysics (TASK - FAKT)