

XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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ATLAS results with beauty mesons

Wednesday, 14 April 2021 13:34 (25 minutes)

Recent results from the ATLAS experiment on the B_c production and decays will be presented. The measurement of the ratios of the B_{c^+} and B_c^+ production cross sections in proton-proton collisions at 8 TeV will be discussed.

The ATLAS experiment has performed accurate measurements of mixing and CP violation in the neutral B mesons, and also of rare processes happening in electroweak FCNC-suppressed neutral B-mesons decays. This talk will also focus on the latest results from ATLAS, such as rare processes: $B_s^0 \rightarrow \mu\mu$ and $B^0 \rightarrow \mu\mu$; and CPV in the $B_s^0 \rightarrow J/\psi \phi$ decays. In the latter, the Standard Model predicts the CP violating mixing phase, ϕ_s , to be very small and its SM value is very well constrained, while in many new physics models large ϕ_s values are expected. Latest measurements of ϕ_s and several other parameters describing the $B_s^0 \rightarrow J/\psi \phi$ decays will be reported.

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