

# 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  $B^+$  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:  $B^0_s \rightarrow \mu\mu$  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,  $\phi_s$ , to be very small and its SM value is very well constrained, while in many new physics models large  $\phi_s$  values are expected. Latest measurements of  $\phi_s$  and several other parameters describing the  $B_s^0 \rightarrow J/\psi \phi$  decays will be reported.

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**Session Classification:** QCD with Heavy Flavors and Hadronic Final States

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