

XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



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ATLAS measurements of CP Violation and Rare decays processes with Beauty mesons

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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 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 B_s to $J/\psi \Phi$, where Standard Model predicts the CP violating phase, ϕ_s , to be very small and is very well constrained, while in many new physics models large ϕ_s values are expected. The $B_s^0 \rightarrow J/\psi \phi$ decay channel is sensitive to the new physics contributions, and already small deviations in a measurement of ϕ_s would be hints for the existence of the new particles.

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