

Gauge boson physics in the forward region at LHCb

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Measurements of the gauge bosons are crucial for testing the present day Standard Model. The fully instrumented coverage of the LHCb detector in the forward region provides a valuable insight in an unexplored kinematic region for proton parton distribution functions through high precision Z^0/W^\pm production and ratio measurements at the available centre-of-mass LHC energies. The currently most precise measurement of the weak mixing angle at a hadron collider using the angular charge asymmetry in the di-muonic decay of Z bosons produced in pp collisions at $\sqrt{s} = 8$ TeV is also presented.

Summary

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