

Study of central production in pp-collisions at $\sqrt{s}=7$ TeV with the ALICE experiment

The ALICE experiment consists of a central barrel covering the pseudo-rapidity range $-0.9 < \eta < 0.9$ and of additional detectors which can be used to define pseudo-rapidity gaps on both sides ($\text{\mbox{-}3.7 < \eta < -0.9}$ and $\text{\mbox{0.9 < \eta < 5.1}}$). The low p_T threshold of the central barrel gives ALICE a unique opportunity to study the low mass sector of central diffractive production at the LHC.

ALICE has collected proton-proton collision data at $\sqrt{s} = 7$ TeV from March to November 2010. I will report on the analysis of events with a double-gap signature based on this data sample of about 4×10^8 minimum bias events. An enhancement of $f_0(980)$ and $f_2(1270)$ is seen in these double-gap events as compared to no-gap events.

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