

Investigating diffractive processes in the ALICE experiment at the LHC

Tuesday, 27 November 2018 15:05 (15 minutes)

ALICE is unique among experiments at the LHC because of its excellent particle identification capabilities, unmatched tracking performance, low transverse momentum threshold and an extended coverage of twelve units of pseudorapidity to detect the presence of particles produced in the collisions. In particular, the ALICE pseudorapidity range has been updated in the second run of the LHC, due to the addition of two new scintillation stations (AD). The new pseudorapidity regions are: $[-7.0, -4.9]$ and $[+5.1, +6.3]$. The inclusion of these regions allows ALICE to achieve better sensitivities for studying low mass diffractive processes, in comparison with its previous capabilities. In this talk we review the ALICE diffractive cross section measurements for pp at 7 TeV with data from the first LHC run and the potential for improving these measurements in the second run, taking into account the new AD scintillation stations.

arXiv

Primary author: CALVO VILLAR, Ernesto (Pontificia Universidad Catolica del Peru (PE))

Presenter: CALVO VILLAR, Ernesto (Pontificia Universidad Catolica del Peru (PE))

Session Classification: Parallel Talks B

Track Classification: Heavy Ions