

Central exclusive and diffractive physics measurements at CMS and TOTEM

Wednesday, July 29, 2020 4:10 PM (15 minutes)

Exclusive and diffractive physics measurements are important for better understanding of the non-perturbative regime of QCD. Recent results of the CMS and TOTEM experiments are presented in this talk. The total and differential cross sections of central exclusive $\pi^+\pi^-$ production are measured at 5.02 and 13 TeV in the $p_T(\pi) > 0.2$ GeV and $|\eta(\pi)| < 2.4$ kinematic region. The invariant mass distribution is fitted by the sum of a continuum and four interfering relativistic Breit-Wigner functions. In the second part of the talk the measurement of the single diffractive dijets is presented, which are studied by using proton tagging capabilities of the TOTEM Roman Pot detectors. The total and differential cross sections are measured in the $0.03 < |t| < 1.0$ GeV² and $0 < \xi < 0.1$ kinematic region.

I read the instructions

Secondary track (number)

Primary author: SURANYI, Oliver (Eötvös Loránd University)

Presenter: SURANYI, Oliver (Eötvös Loránd University)

Session Classification: Strong Interactions and Hadron Physics

Track Classification: 06. Strong Interactions and Hadron Physics