

Exclusive physics results at CMS

Monday, 28 August 2017 11:30 (30 minutes)

In high energy physics, exclusive processes are special type of collisions, where both colliding particles remain intact and we observe all of the produced particles. These can be either electroweak (two-photon fusion), strong (double pomeron exchange) or mixed electromagnetic and strong (photoproduction) processes. One of the greatest advantage of these collisions is that there are constraints on quantum numbers of final state. This property is useful in a wide variety of high energy researches, such as search for glueballs or the measurement of anomalous quartic gauge couplings. This talk introduces three results from CMS experiment: 1. Search for W -boson pairs produced via two-photon fusion in pp collisions and limits on anomalous quartic gauge couplings. 2. ρ and Υ photoproduction in ultraperipheral pPb collisions. 3. Di-pion production via double pomeron exchange and photoproduction in pp collisions at 5, 7 and 13 TeV.

Primary author: CMS, Collaboration

Co-author: SURANYI, Oliver (Eötvös Loránd University)

Presenter: SURANYI, Oliver (Eötvös Loránd University)

Session Classification: Parton Distribution Functions and Soft QCD