10th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions



Contribution ID: 271

Type: Oral Presentation

Nuclear modification and exclusive photoproduction of Upsilon in pPb collisions with the CMS experiment

Tuesday 2 June 2020 12:20 (20 minutes)

Results of nuclear modification of Upsilon production in pPb collisions at 5.02 TeV and exclusive Upsilon photoproduction in Ultraperipheral collisions (UPC) of pPb at 8.16 TeV, are presented. The nuclear modification factors in pPb collisions are measured to quantify nuclear effects in such a small system and sequential suppression is observed among the three states following the ordering of their binding energies. Exclusive photoproduction of Upsilon states in UPC of protons and Pb using data collected by the CMS in 2016 with an integrated luminosity of 178.4 nb⁻¹, is presented. The $\Upsilon(1S)$ photoproduction cross-section is extracted in the region |y| < 2.2 as a function of the photon-proton centre-of-mass energies $W_{\gamma p}$, which provides valuable information of the gluon distribution at small values of parton fractional momenta x. The results are compared to other experimental results as well as various theoretical predictions.

Collaboration (if applicable)

CMS

Track

Heavy Flavor and Quarkonia

Contribution type

Contributed Talk

Author: PETRUSHANKO, Serguei (M.V. Lomonosov Moscow State University (RU))
Presenter: Dr CHUDASAMA, Ruchi (Eotvos Lorand University (HU))
Session Classification: Parallel

Track Classification: Heavy Flavor and Quarkonia