XXIV QUARK MATTER DARMSTADT 2014

Contribution ID: **453** Type: **Poster**

Measurement of exclusive Upsilon photoproduction in pp and pPb collisions at CMS

Tuesday 20 May 2014 16:30 (2 hours)

Results on exclusive photoproduction of Υ states in ultra-peripheral collisions (UPC) of protons and ions at CMS are presented, which provides a clean probe of the gluon distribution at small values of parton fractional momenta x $10^{-4} - 10^{-3}$. The three Υ states (1S, 2S, 3S) are measured in the dimuon decay channel, on top of the photon-photon $\rightarrow \mu\mu$ QED continuum, in pPb collisions at $\sqrt{s_{NN}} = 5.02$˜TeV (for integrated luminosity of $L_{int} = 35$ nb^{-1}) and in pp at $\sqrt{s} = 7$ TeV ($L_{int} = 5.24$ fb^{-1}). The total Υ photoproduction cross sections as well as the t-differential distributions are compared to various theoretical predictions. The impact of these data on the central values and uncertainties of the low-x gluon distribution will be assessed.

On behalf of collaboration:

CMS

Author: CHUDASAMA, Ruchi (Bhabha Atomic Research Centre (IN))

Presenter: CHUDASAMA, Ruchi (Bhabha Atomic Research Centre (IN))

Session Classification: Poster session

Track Classification: Open Heavy Flavour and Quarkonia