

Photo production of dijets in ultra-peripheral PbPb collisions at 5.02 TeV

Friday 6 July 2018 20:15 (15 minutes)

Ultra-peripheral collisions (UPCs) of heavy ions involve long-range interactions at impact parameters larger than the sum of their radii. Therefore, the hadronic interactions are largely suppressed in UPC. Though there are no hadronic processes in UPC, the jets can be produced via some other ways, such as gamma-nucleus interactions. The study of di-jet photoproduction by gamma-nucleus interactions at high energy offer a unique opportunity to study hadron structure and low Bjorken- x gluon dynamics. This presentation shows the first observation of the photonuclear jets analyzed by CMS at the LHC. The CMS experiment has excellent capabilities for the measurements of jets and charged tracks, which are definite advantages for this analysis. The primary result of di-jet photoproduction in ultra-peripheral PbPb collisions using the data taken in 2015 will be presented.

Authors: BOREN, Samuel Steed (The University of Kansas (US)); BOWEN, James Lee Smith (The University of Kansas (US)); Prof. TAPIA TAKAKI, Daniel (University of Kansas); KIM, Beomgon (Korea University (KR)); MURRAY, Michael (The University of Kansas (US)); WANG, Quan (The University of Kansas (US)); KIM, Yongsun (Univ. Illinois at Urbana Champaign (US))

Presenter: KIM, Beomgon (Korea University (KR))

Session Classification: POSTER

Track Classification: Heavy Ions