

Photoproduction of muon pairs in Pb-Pb collisions with ALICE

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The effects associated with the behaviour of the gluon distribution at small Bjorken x , e.g. gluon saturation and gluon shadowing, can be studied experimentally by measuring cross sections of processes sensitive to this parton distribution.

One of these processes is the exclusive photoproduction of a J/ψ vector meson, which can be studied in ultra-peripheral collisions (UPC) where the colliding particles have an impact parameter larger than the sum of their radii.

UPC of lead ions at the LHC provide an intense flux of photons with energies such that they are capable of probing the gluon distribution in lead nuclei at very low Bjorken x . ALICE measurements of the cross section for J/ψ photoproduction in Pb-Pb UPC, including the newest available results from Run 2, are presented.

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