

# Photoproduction of vector mesons in ultraperipheral Pb-Pb collisions with ALICE at LHC

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In Ultra-Peripheral Collisions (UPC), two nuclei pass close to each other at an impact parameter greater than the sum of their radii; in such collisions hadronic processes are strongly suppressed, while  $\gamma$  interactions are enhanced with respect to minimum-bias collisions.

Photoproduction of vector mesons in UPC is a powerful tool to probe the nuclear gluon distribution in the nucleus, for which there is considerable uncertainty in the low- $x$  region.

The ALICE collaboration has published measurements of UPC  $J/\psi$  and  $\psi(2S)$  photoproduction in LHC Run 1 at forward ( $J/\psi$ ) and at mid-rapidity.

In addition the increased energy and more detailed measurements in the forward region in Run 2 give access to significantly lower values of Bjorken- $x$  than in previous studies.

In this talk, the latest available results from Run 2 will be given, together with results on photoproduction of  $\rho^0$  from Run 1 and 2 and a comparison with theoretical models.

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