

## Photoproduction of vector mesons in ultra-peripheral collisions with ALICE

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The strong electromagnetic fields generated by ultra-relativistic heavy ions offer the possibility to study photoproduction processes at the LHC. In so called ultra-peripheral collisions (UPC), when the impact parameter of the incoming hadrons is larger than the sum of their radii, hadronic processes are strongly suppressed and only electromagnetic interactions remain.

ALICE has measured the exclusive photoproduction of vector mesons – including  $\rho^{0}$ ,  $J/\psi$  and  $\psi(2s)$  – in  $\gamma$ -p and  $\gamma$ -Pb using p-Pb and Pb-Pb collisions respectively. These processes provide information on the QCD structure of the targets at higher photon-target center-of-mass energies than ever before, and contribute to our understanding of saturation and nuclear gluon shadowing.

The talk will cover the results from LHC Run1 data, as well as discuss the current status and prospects for analyses with LHC Run2 data.

### Collaboration

ALICE

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