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Coherent J/ψ photo-production in ultra-peripheral Pb-Pb collisions with ALICE at the LHC

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There are several different predictions for the behaviour of the gluon distribution in nuclei at small Bjorken x and experimental data are needed to choose among them. This is achieved by measuring the cross section of processes specially sensitive to this parton distribution.

The high flux of photons from lead ions at the LHC allows us to study photon-induced reactions in ultra-peripheral collisions (UPC) of Pb-Pb nuclei, in particular of those producing a J/ψ meson exclusively. The study of these collisions, where projectiles do not overlap, provides information about the initial state of nuclei.

The newest ALICE results on vector meson photoproduction are presented. The increased statistics and higher collision energy of $\sqrt{s}$=5.02 TeV in Run 2 allow us to put new constraints on available models.

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