Contribution ID: **482** Type: **Parallel session talk**

J/ production and polarization in photon-induced reactions in Pb–Pb collisions with ALICE

Thursday, 18 July 2024 15:36 (17 minutes)

Intense electromagnetic fields from ultrarelativistic heavy ions can trigger photonuclear reactions, which can be used to probe the nuclear gluon distribution at low Bjorken-x and targets gluonic fluctuations. Our study examines ultra-peripheral and nuclear-overlap collisions, covering measurements of peripheral Pb–Pb collisions' y-differential cross section and coherent J/ψ photoproduction polarization. We present new Run 2 measurements, including p_T spectra of incoherent J/ψ in Pb–Pb UPCs at both forward and midrapidity, revealing lead nucleus substructure. Additionally, we observe J/ψ photoproduction with proton dissociation in p–Pb collisions, offering fresh insights into proton sub-nucleonic fluctuations. Combining forward and midrapidity data offers a robust test of theoretical models.

Alternate track

I read the instructions above

Yes

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Session Classification: Heavy Ions

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