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Multiplicity dependent J/ψ production at midrapidity in p-Pb collisions at 5 TeV with ALICE at the LHC

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Previous ALICE results indicate a stronger than linear increase of the inclusive normalized J/ψ yield with charged-particle multiplicity, both measured at mid-rapidity, in proton-lead collisions at $\sqrt{s_{NN}} = 5.02$ TeV. The corresponding ALICE results on proton-proton collisions at$\sqrt{s} = 13$ TeV provide a clearer picture of a stronger than linear increase.
In PYTHIA8, this behavior has been associated with auto-correlation effects in proton-proton collisions. This has been achieved by investigating the multiplicity dependence of J/ψ production in different regions of the azimuthal angle, which is the difference between the J/ψ meson and the charged particle emission angle. For proton-lead collisions, no results on these distributions for the J/ψ meson are available yet.
This poster will present first results on the multiplicity dependence of the normalized J/ψ yield for proton-lead collision in regions of the azimuthal angle, using ALICE data at $\sqrt{s_{NN}} = 5.02$ TeV recorded during the LHC data taking Run 2 in 2016.

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