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J/ψ production in p+p collisions at $\sqrt{s} = 5$ TeV in the ALICE experiment

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Collision of relativistic heavy ions produce a hot and dense matter constituted of deconfined quarks and gluons - the Quark-Gluon Plasma (QGP). Heavy quarks present a unique probe of QGP properties as, due to their large mass, they are created in the initial hard-scattering processes during the first stages of the collision. Hence they experience the whole evolution of the system. Measurements of products of hadronization of charm quarks can unveil information on the properties of the matter created in the collision.

Suppression of charmonia production in nucleus-nucleus collisions compared to proton-proton collisions due to Debye screening is one of the predicted signatures of the QGP. Nonetheless, recent LHC results hint that another production mechanism, recombination of charm - anti-charm pairs in present in the medium, also needs to be taken into account.

Measurement of charmonia production in p+p collisions presents an important reference for A+A measurement. Recent Pb+Pb data at $\sqrt{s_{NN}} = 5$ TeV from LHC Run-2 are unique as they were recorded at the highest energy ever achieved in A+A collisions. Corresponding p+p data were also collected. In this poster, status of the analysis of J/ψ in p+p collisions at $\sqrt{s} = 5$ TeV via dimuon decay channel in the ALICE experiment will be presented.

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