

12th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions

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Prompt/Non-prompt J/ψ production in proton-proton and Pb-Pb collisions with ALICE

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Quarkonium production in high-energy hadronic collisions is sensitive to both perturbative and non-perturbative aspects of QCD calculations. The charmonium production cross section can be split into prompt and non-prompt components, the first corresponding to a direct production of charm (anticharm) quarks, the second originating from the decay of beauty hadrons. The latter is important to investigate the mass dependence of heavy-quarks in-medium energy-loss mechanism. In this contribution the recent measurement of prompt and non-prompt J/ψ carried out by the ALICE Collaboration in pp and Pb-Pb collisions at midrapidity ($|y| < 0.8$) will be presented. Moreover, thanks to the installation of the new muon forward tracker (MFT), the prompt/non-prompt charmonia separation is possible in LHC Run 3 also at forward rapidity ($2.5 < y < 4$). The status of the new measurements will be presented and compared, where possible, with the available models.

Category

Experiment

Collaboration

ALICE

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