

Quarkonium production in Pb-Pb and Xe-Xe collisions with ALICE at the LHC

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Quarkonium production is an excellent probe to investigate the properties of the hot and dense medium, which can be created in heavy-ion collisions. The production and hadronisation of heavy quarks are well separated in the space-time evolution of a collision and provide a wealth of information of the underlying QCD dynamics from the dense to the eventually diluting system.

We report on the latest results from ALICE at the LHC on quarkonium production in heavy-ion collisions at mid- and forward rapidity. The nuclear modification factor as a function of centrality, transverse momentum, and rapidity is presented for charmonium and bottomonium states together with the elliptic flow of J/ψ in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV. The status of the J/ψ polarization measurement in Pb-Pb collisions is addressed. In addition, results on the nuclear modification factor for Xe-Xe collisions at $\sqrt{s_{NN}} = 5.44$ TeV are presented. Experimental results are compared with available phenomenological calculations and results obtained at lower collision energies.

Summary

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