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Forward rapidity open heavy flavor measurements at PHENIX in p+p and Au+Au collisions

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Heavy flavor and quarkonia productions are important hard probes to test Quantum Chromodynamics (QCD) and study the properties of the Quark Gluon Plasma (QGP) created in high energy heavy ion collisions. The energy loss of quarks and gluons in the QGP is expected to have flavor/mass dependence. The Forward Silicon Vertex Tracker (FVTX), installed in the PHENIX detector in 2012, enables the displaced vertex measurement of muons in the rapidity range of $1.2 < |y| < 2.2$, allowing the separation of charm and bottom quark decays. A new method to separate the charged pion, kaon and proton yields based on the displacement vertex distribution of prompt hadrons and their muon decays is also possible.
We will present the current status of the analysis of B- and D-meson semi-leptonic decayed, the B$\rightarrow J/\psi$ production, and identified hadron yields in p+p and Au+Au collisions at $\sqrt{s_{NN}}$=200 GeV.

Content type

Experiment

Collaboration

PHENIX

Centralised submission by Collaboration

Presenter name already specified

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