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Heavy Flavor and Quarkonia results from the PHENIX experiment

Tuesday 5 September 2023 11:00 (20 minutes)

The PHENIX experiment at RHIC has a unique large rapidity coverage (1.2< $|\eta|$ <2.2) for heavy flavor studies in heavy ion collisions. This kinematic region has a smaller particle density and may undergo different nuclear effects before and after the hard process when compared to mid-rapidity production. The latest PHENIX runs contains a large data set which allows, for the first time, the study of heavy flavor and J/ψ flow at the large rapidity region in Au+Au collisions at $\sqrt{s_{NN}}$ =200 GeV. This measurement has the potential to reveal a medium evolution distinct from the one known at the mid-rapidity. This presentation will also report on the analysis status of non-prompt J/ψ coming from B-meson decays at mid-rapidity in *pp* collisions. This data can reach very low p_{T} B-mesons yields which is typically challenging to be described by pQCD calculations.

Category

Experiment

Collaboration (if applicable)

PHENIX

Primary author: SMITH, Krista Lizbeth (Los Alamos National Laboratory (US))

Presenter: SMITH, Krista Lizbeth (Los Alamos National Laboratory (US))

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