

Cold nuclear matter effects and heavy-quark production in PHENIX

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Measurements of cross section modifications for hard processes that take place in a nuclear target provide information about the modification of parton densities in nuclei at low Bjorken x . This is interesting because it illuminates the physics of QCD at high parton density, and also because it provides a baseline against which the modification of cross sections for hard processes in heavy ion collisions can be measured. PHENIX has now completed analysis of data from the 2008 d+Au RHIC run for production of quarkonia, open heavy flavor, and correlated high p_T π^0 production at forward rapidity. In this talk we will discuss these results and what they convey about cold nuclear matter effects, and their implications for hot matter effects in Au+Au collisions.

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