6th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions (Hard Probes 2013)

Contribution ID: 64

Type: Oral

PHENIX Results on Heavy Flavor at Low-x

Monday, 4 November 2013 15:10 (20 minutes)

It is becoming increasingly clear that initial state effects inherent to collisions of nuclei play an important role in the interpretation of data from heavy ion collisions at RHIC and the LHC. Such effects are more apparent in kinematic regions where the gluon density is expected to be significantly modified in the nucleus. The PHENIX experiment has studied these effects through the production of heavy quarks at backwards, middle, and forward rapidity, where partonic interactions in the nucleus and changes in the gluon structure function influence heavy quark production in different ways. Comparisons between these different rapidities in d+Au collisions offer us a window into the dynamics of particle production and transport in the nucleus. In this talk, new PHENIX results on heavy quark production at low x values will be discussed, in the context of A+A data from RHIC and the LHC.

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Track Classification: Initial State and Proton-Nucleus Collision Phenomena