erence on Physics ark Gluon Plasma

Contribution ID: 100

Open charm measurement in p+p \$sqrt{s}\$ = 200 GeV collisions at STAR

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ICPAQGP-2010

Content :

The charm production is sensitive to early dynamics of the created system in RHIC heavy ion collisions. Dominant process of charm quarks production at RHIC is believed to be initial gluon fusion which can be calculated in the perturbative QCD. Understanding on both the charm production total cross section and the fragmentation in p+p collisions is a baseline to further explore the QCD medium via open charm and charmonium in heavy ion collisions. This talk will present the reconstruction of open charm meson D^{0} via the weak decay to K and $\phi = 200$ GeV.

The analysis is based on the large p+p minimum bias sample collected in RHIC in year 2009 by the STAR detector. The barrel Time-Of-Flight detector,

which covered 72% of the whole barrel in Run9, was firstly used to improve the decay daughter identification. Physics implications from this analysis will be presented.

Collaboration :

STAR

Primary authors : Mr. TLUSTY, David (PhD. student)

Co-authors :

Presenter : Mr. TLUSTY, David (PhD. student)

Session classification : --not yet classified--

Track classification : --not yet classified--

Type : --not specified--