

PHENIX Results on Open Heavy Flavor Production

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Heavy quarks are useful probes to investigate the property of the hot and dense medium created in high energy heavy ion collisions because they are produced via initial hard scattering and thus are affected by the entire evolution of the medium.

The PHENIX experiment has measured open heavy flavor production via the measurement of single lepton from the decay of inclusive heavy quarks in various collision systems.

After the addition of the barrel and forward silicon vertex tracker (VTX and FVTX),

we are able to measure the bottom and charm production separately using the off-vertex decays.

In addition, non-prompt J/ψ from B decay is a clean channel to measure the open bottom production.

In this talk, we will present the nuclear modification of single electrons from

bottom and charm decays separately in Au+Au collisions at mid-rapidity and

non-prompt J/ψ in Cu+Au collisions at forward rapidity, and discuss their interpretations.

List of tracks

Heavy-flavour (open and hidden)

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