

Hard Probes 2018: International Conference on Hard & Electromagnetic
Probes of High-Energy Nuclear Collisions

Contribution ID: 268

Type: 3a) Heavy-flavours and quarkonia (TALK)

**PHENIX results on charm and bottom quark yields in
p+p and Au+Au Collisions at $\sqrt{s_{NN}}=200$ GeV.**

Tuesday 2 October 2018 09:00 (20 minutes)

The PHENIX Experiment measures electrons from heavy flavor decays at mid-rapidity $|y| < 0.35$ in a range of $1 < p_T < 7 \text{ GeV}/c$. Separated charm and bottom yields are obtained by unfolding distance of the closest approach distributions. Charm and bottom quark yields are measured in p+p and Au+Au collisions obtained from the high luminosity RHIC runs taken in 2015 and 2014 respectively. The results in p+p collisions pose a tight constraint to the pQCD estimate of heavy flavor production. The nuclear modification of charm and bottom yields in Au+Au collisions can reveal how the energy that hadrons lose in the QGP medium depends on the quark mass, especially at low p_T . This presentation will report on the status of these measurements.

Summary

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Session Classification: Parallel 3