



Contribution ID: 269

Type: Poster

## Measurements of electrons from semileptonic decays of open heavy flavor hadrons in p+p and Au+Au collisions at $\sqrt{s_{NN}}=200$ GeV

*Tuesday 29 September 2015 16:30 (2 hours)*

Heavy flavor quarks have been suggested as excellent probes to study the properties of the hot and dense nuclear matter created in high-energy heavy-ion collisions. In this regard, high precision measurements of heavy flavor production in p+p collisions are also important as they provide a reference to study the medium effects in heavy-ion collisions. In this poster, we will present the latest results on electrons produced from semileptonic decays of open heavy flavor hadrons in p+p and Au+Au collisions at  $\sqrt{s_{NN}}=200$  GeV. The p+p results are extracted from data taken by the STAR experiment at the Relativistic Heavy Ion Collider in the year 2012, which have a highly improved precision than previous results over a wider range of transverse momentum,  $0.2 < p_T < 12$  GeV/c. With this new p+p baseline, improved nuclear modification factors  $R_{AA}$  in Au+Au collisions are also obtained and compared with theoretical model calculations.

### On behalf of collaboration:

STAR

**Primary author:** BAI, Xiaozhi (UIC)

**Presenter:** BAI, Xiaozhi (UIC)

**Session Classification:** Poster Session

**Track Classification:** Open Heavy Flavors and Strangeness