

DIS 2015

XXIII International Workshop on
Deep-Inelastic Scattering and
Related Subjects

Dallas, Texas
April 27 – May 1, 2015



Contribution ID: 160

Type: not specified

Measurements of Open Heavy Flavor Production in Semi-leptonic Channels at STAR

Tuesday, 28 April 2015 08:55 (20 minutes)

High precision measurements of open heavy flavor production in p+p collisions are instrumental to test the validity and constrain the parameters of perturbative QCD (pQCD) calculations. Heavy flavor quarks are also suggested as excellent probes to study the properties of the hot and dense nuclear matter created in high-energy heavy ion collisions. In this talk, we present the most recent results on open heavy flavor production through semi-leptonic decay channels from the STAR experiment at the Relativistic Heavy Ion Collider. An improved measurement on the Non-Photonic Electron (NPE) production from semi-leptonic decay of open heavy flavor hadrons in p+p collisions at $\sqrt{s}=200$ GeV will be discussed and compared to pQCD calculations. Modification of NPE production yields and elliptic flow measured in Au+Au collisions at $\sqrt{s_{NN}}=39, 62.4,$ and 200 GeV will also be presented and compared to theoretical model calculations.

Primary author: Prof. YE, Zhenyu (University of Illinois at Chicago)

Presenter: Prof. YE, Zhenyu (University of Illinois at Chicago)

Session Classification: WG5 Heavy Flavours

Track Classification: WG5 Heavy Flavours