

Recent Results on Heavy Flavor Production in High Energy Nuclear Collisions

Thursday, 31 May 2018 08:00 (35 minutes)

The goal of the ultra-relativistic heavy ion program is to study Quantum Chromodynamics under finite temperature and density conditions. After a couple of decades of experiment, the focus at the top RHIC and the LHC energy has evolved to quantitative understanding of properties of the hot and dense medium, namely the strongly-coupled Quark Gluon Plasma (sQGP) created in these heavy-ion collisions, and to constrain transport parameters of the sQGP medium. Heavy quarks offer unique insights towards detailed understanding of the sQGP properties due to their large masses. Recent collider and detector advances have enabled precision measurements of heavy quark hadron production in heavy-ion collisions.

In this talk, I will review recent results from heavy quark production measurements at RHIC and the LHC. These high quality data will offer stringent constraints on theoretical model calculations and help precision determination of QGP medium transport parameters. Finally, I look forward to a more prospective future of the heavy quark program with further improved detectors at both RHIC and the LHC.

E-mail

XDong@lbl.gov

Primary author: DONG, Xin

Presenter: DONG, Xin

Session Classification: Plenary 5

Track Classification: QMHI