Contribution ID: **177** Type: **Poster**

The sPHENIX heavy flavor jet physics physics program

Tuesday, 2 June 2020 07:30 (1h 20m)

Jets initiated by the fragmentation of heavy flavor quarks (HF-jet) are sensitive to collisional energy loss of the high energy parton when traversing through Quark Gluon Plasma. Using the state-of-the-art jet detector at RHIC, sPHENIX, we will perform the first HF-jet measurement at RHIC, which includes the nuclear modification and flow of b-jets, and the momentum balance in di-b-jet pairs. A variety of b-jet tagging algorithms have been developed, which select a HF-jet sample rich in tracks displaced from the primary collision point as measured by the high precision MAPS vertex tracker for sPHENIX. The detection method, physics projection and possible impacts to the field of heavy ion physics will be presented.

Collaboration (if applicable)

sPHENIX

Track

Jets and High Momentum Hadrons

Contribution type

Poster

Primary author: ROSATI, Marzia (Iowa State University)

Presenter: Dr HUANG, Jin (Brookhaven National Lab)

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