

Jet Measurements in Heavy Ion Collisions

Friday, 1 June 2018 16:10 (30 minutes)

The Quark-Gluon Plasma (QGP) is created in high energy heavy ion collisions at the Relativistic Heavy Ion Collider (RHIC) and the Large Hadron Collider (LHC). This medium is transparent to electromagnetic probes but nearly opaque to colored probes. Hard partons produced early in the collision fragment and hadronize into a collimated spray of particles called a jet. The partons lose energy as they traverse the medium, a process called jet quenching. Most of the lost energy is still correlated with the parent parton, contributing to particle production at larger angles and lower momenta relative to the parent parton than in proton-proton collisions. This partonic energy loss can be measured through several observables, each of which give different insights into the degree and mechanism of energy loss. The measurements to date are summarized and the path forward is discussed.

E-mail

christine.nattrass@utk.edu

Primary author: Dr NATTRASS, Christine (University of Tennessee, Knoxville)

Presenter: Dr NATTRASS, Christine (University of Tennessee, Knoxville)

Session Classification: Quark Matter and High Energy Heavy Ion Collisions

Track Classification: QMHI