Contribution ID: **30** Type: **Poster**

Factorization and jet functions in heavy-ion collisions

Tuesday 24 September 2024 18:10 (20 minutes)

In this talk we discuss factorization of jet cross sections in heavy-ion collisions based on fixed-order calculations. First, using Glauber modelling of heavy nuclei, a factorized formula for jet cross sections is derived, which involves defining jet functions in QCD medium. Then, we present our result of the jet function for producing a heavy quark-antiquark pair, denoted by $Q\bar{Q}$, at leading order in a static medium. The jet function is found to depend on the virtuality of the hard parton that initiates the jet, showing that the presence of QCD matter allows the production of Q at virtuality where is kinematically forbidden in vacuum jets.

Category

Theory

Collaboration

Authors: WU, Bin; SALGADO LOPEZ, Carlos Albert (Universidade de Santiago de Compostela (ES)); LAMAS, Carlos (IGFAE-USC)

Presenter: LAMAS, Carlos (IGFAE-USC)

Session Classification: Poster Session

Track Classification: 1. Jets modification and medium response