

The 131st HENPIC seminar by Dr. Haitao Li 李海涛 (Northwestern U & Argonne National Lab), Jan. 7, 2021, Thursday, 10:30 am (UTC+8)

Talk title: Jets and Heavy Flavor at the Electron-Ion Collider

Speaker: Dr. Haitao Li, Northwestern U & Argonne National Lab

Abstract:

Theoretical investigations for observables are crucial to answer fundamental questions at the future electron-ion collider. In this talk, I will discuss our recent theoretical works in calculating cross-sections and substructure for jets and open heavy flavor in electron-nucleus collisions. For jet production, we demonstrate theoretically how to disentangle the effects from nuclear parton distribution functions and the ones that arise from strong final-state interactions between the jet and the nuclear medium. For open-heavy flavor hadron production, we show how to identify the optimal observables, center-of-mass energies, and kinematic regions most sensitive to the physics of energy loss and hadronization at the EIC.

Self-introduction:

Haitao Li, currently a postdoc research scholar at Northwestern University and Argonne National Laboratory. Previously he worked as postdoctoral researcher at Los Alamos National Laboratory and Monash University. He got his PhD in Peking University. His research work focuses on perturbative QCD and collider physics, such as fixed-order QCD corrections and resummation. He also works on jet physics in heavy-ion and electron-ion collisions.

Presenter: Dr LI, Haitao (Northwestern U & Argonne National Lab)