

The 139th HENPIC seminar by Prof. Dingyu Shao 邵 鼎煜 (Fudan University), May 6, 2021, Thursday, 10:30 (UTC+8)

Talk title: Jets and flavor content of nucleons

Speaker: Prof. Dingyu Shao, Fudan University

Abstract:

The theoretical description of jet observables is at the heart of the high-energy collisions. Recently various studies have demonstrated that jets can be useful tools for probing nucleon 3D structures, and the potential of jet physics at the future EIC is a fast emerging field of research. The advent of the EIC with its high luminosity and polarized beams will unlock the full potential of jets. Since jets are made of collimated bunches of hadrons, their substructures would provide more information to access nucleon inner structures. In this talk, I will review some recent works relevant to the EIC jet physics, including flavor and charge tagged jet production and recoil-free tracking jet definitions.

Self-introduction:

Dingyu Shao is currently a junior professor at Fudan University and an associate member of Theory Department at CERN. Before joining Fudan University in 2021, he has worked at UCLA, CERN, and University of Bern. His main research focuses on quantum field theory and its application, particularly QCD at high energy colliders, including 1. QCD effective field theory 2. Infrared structure of non-abelian gauge theories and QCD factorization theorem 3. Collider phenomenology: jet and heavy flavor physics 4. Spin physics and quantum tomography of nucleons.

Presenter: Prof. SHAO, Dingyu