Yushan Su – HEP Seminar November 14, 2023
University of Maryland

Title: Threshold resummation for calculating large-x parton distribution through large momentum effective theory

Abstract: Parton distribution functions (PDFs) at large-x are important in probing the physics beyond the Standard model as well as understanding the hadron structure itself. In my talk, I will start with the experimental phenomena on the large-x parton physics. Then I will discuss the threshold resummation for deep inelastic scattering (DIS) in the literature, which is to improve the accuracy in extracting the large-x parton distribution from experimental data. Finally, I will discuss our recent work on threshold resummation for quasi-PDF through large momentum effective theory (LaMET), which is similar to DIS threshold resummation but for extracting the parton distribution from lattice QCD.