Konstantin Asteriadis – HEP seminar – March 29, 2022
BNL

Title: Fully differential Higgs production in VBF at NNLO with realistic final states using nested soft-collinear subtractions

Abstract: Higher order perturbative predictions, in particular for processes with high multiplicities in the final state, require efficient treatment of infrared and collinear singularities. In the last years huge progress was made in this respect. However, despite this progress, the search for the optimal subtraction scheme continues. In this talk I will present a short introduction to the nested soft-collinear subtraction scheme. I will use this method to compute fully differential next-to-next-to-leading-order QCD corrections to Higgs boson production in vector-boson fusion. In contrast to earlier computations of this process, decays of the Higgs boson at leading order are included.