

Title: Matching for quasi parton distribution functions

Presenter: Tomomi Ishikawa

Authors: Tomomi Ishikawa, Yan-Qing Ma, Jian-Wei Qiu and Shinsuke Yoshida

Abstract:

In recent years, the quasi parton distribution has been introduced to extract the standard parton distribution functions by lattice QCD simulations. The quasi and standard distribution share the same collinear IR singularity and the quasi distribution can be factorized into the normal distribution with perturbative matching factors. The quasi parton distribution is known to have power-law UV divergences, which is quite different from the normal distribution. We discuss the UV renormalization scheme in the matching. We also show a demonstration of perturbative matching of the quasi quark distribution between continuum and lattice.