

2022 Meeting on Lattice Parton Physics from Large Momentum Effective Theory (LaMET2022)



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Lattice QCD Calculations of Transverse-momentum-dependent Soft Function at one-loop accuracy

Saturday, December 3, 2022 9:50 AM (25 minutes)

Soft function plays an important role in TMD factorization. We present a lattice QCD calculation for the rapidity-independent (or intrinsic) part of soft function at one-loop accuracy with a coherent normalization in large-momentum effective theory. The calculation is performed on CLS dynamic ensemble with $a=0.098$ fm and MILC ensemble with $a=0.12$ fm. Our results based on two ensembles are close to each other and make an agreement to perturbative calculation.

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Session Classification: Session I