Contribution ID: **41** Type: **not specified**

Collins-Soper kernel from transverse momentum-dependent wave functions in LaMET

Saturday, 11 December 2021 16:30 (20 minutes)

In this work we present the analysis of Collins-Soper kernel extracted from pion transverse momentum dependent wave functions in the framework of large momentum effective theory from lattice QCD. We use clover fermion action with $2+1+1$ flavors of highly improved staggered quarks (HISQ), with lattice spacing $a = 0.12$fm and volume $L^3 \times T = 48^3 \times 64$. The results are obtained based on pion mass $M_\pi = 670$MeV, and three hadron momenta as $P^z = 2\pi/L \times \{8, 10, 12\} = \{1.72, 2.15, 2.58\}$GeV. Preliminary results are found in consistent with previous LQCD determinations and phenomenological results.

Primary author: Mr CHU, Min-Huan (Shanghai Jiao Tong University)

Presenter: Mr CHU, Min-Huan (Shanghai Jiao Tong University)

Session Classification: Nuclear&Particle Session II