Contribution ID: **9** Type: **not specified**

The continuum and leading twist limits of pseudo-PDFs

Tuesday 7 December 2021 10:25 (25 minutes)

The continuum limit is a fundamental step when using a lattice regulator and necessary for any high precision calculation using lattice QCD. The matrix elements used in determining a PDF have two dimensionful parameters, compared to the 0 or 1 of most lattice calculations, which significantly complicates the continuum limit extrapolation. In this presentation, I will describe a method which will allow for a continuum limit extrapolation from any ensemble without having to fix any of the parameters. It also can be extended to other systematic errors such as removing higher twist effects. I will demonstrate this method on a set of ensembles with $m_\pi = 440$ MeV and lattice spacings $a = 0.048, 0.065$, and 0.075 fm.

Authors: RADYUSHKIN, Anatoly; KARPIE, Joseph; ORGINOS, Kostas (William and Mary - Jlab); ZAFEIROPOULOS, Savvas (Aix Marseille Univ. & CNRS)

Presenter: KARPIE, Joseph

Session Classification: Session II