



Contribution ID: 199

Type: Oral Presentation

Calculation of Distribution Amplitudes in Quantum Chromodynamics using Large-Momentum Effective Theory up to power accuracy

Thursday, August 11, 2022 10:00 AM (20 minutes)

Distribution amplitudes (DAs) describe the momentum of a meson's constituent partons and are of great importance in quantum chromodynamics (QCD) experiments and phenomenology. The advent of large-momentum effective theory (LaMET) in 2013 made the determination of DAs amenable to lattice calculations. Parton physics is described in the limit of infinite momentum and corrections to LaMET calculations are quadratic in Λ_{QCD}/P . However, contamination from renormalons results in corrections linear in Λ_{QCD}/P . A new and more robust method for removing the effects of renormalons in linear divergence is presented, applied to the calculation of meson distribution amplitudes in QCD and preliminary results are shown.

Primary author: HOLLIGAN, Jack (University of Maryland)

Co-authors: Mr ZHANG, Rui (University of Maryland); JI, Xiangdong (University of Maryland); SU, Yushan (University of Maryland)

Presenter: HOLLIGAN, Jack (University of Maryland)

Session Classification: Hadron Structure

Track Classification: Hadron Structure