

# Lattice Calculation of the Second Moment of the Pion Light-Cone Distribution Amplitude

*Tuesday 7 December 2021 11:15 (15 minutes)*

The pion light-cone distribution amplitude (LCDA) carries information about the momentum distribution of its quarks, which is an important input to various experiments. We present a proof-of-concept lattice calculation of the second Mellin moment of the pion LCDA as the first numerical implementation of the heavy-quark operator product expansion (HOPE) method. The resulting value for the second Mellin moment, determined in quenched QCD at a pion mass of  $m_\pi = 550$  MeV at a factorization scale of 2 GeV, is  $\langle \xi^2 \rangle = 0.210 \pm 0.013$  (stat.)  $\pm 0.034$  (sys.). This result is compatible with those from previous determinations of this quantity.

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**Session Classification:** Session II