

# Investigation of the fourth moment of the pion light-cone distribution amplitude

*Tuesday 7 December 2021 11:30 (15 minutes)*

The light-cone distribution amplitude (LCDA) is a key object of interest in a range of high-energy, exclusive processes in QCD. In this talk, we describe the application of the heavy quark operator product expansion (HOPE) method to a preliminary study of the fourth Mellin moment of the pion LCDA. This constitutes the first study of the fourth moment from lattice QCD. We present an exploratory investigation at a pion mass of 560 MeV in the quenched approximation.

**Authors:** GREBE, Anthony (Massachusetts Institute of Technology); DETMOLD, William (Massachusetts Institute of Technology); LIN, C.-J. David (National Yang Ming Chiao Tung University); KANAMORI, Issaku (R-CCS, RIKEN); PERRY, Robert (National Yang Ming Chiao Tung University); MONDAL, Santanu (Los Alamos National Laboratory); ZHAO, Yong (Argonne National Laboratory)

**Presenter:** PERRY, Robert (National Yang Ming Chiao Tung University)

**Session Classification:** Session II