

# Pion and kaon distribution amplitudes and SU(3) flavor breaking effect from lattice QCD

*Wednesday 8 December 2021 08:30 (25 minutes)*

We present the state-of-the-art lattice QCD calculation of the light-cone distribution amplitudes (DAs) of pion and kaon using large-momentum effective theory. The calculation is done at three lattice spacings  $a \approx \{0.06, 0.09, 0.12\}$  fm and physical pion and kaon masses, with the meson momenta  $P_z = \{1.29, 1.72, 2.15\}$  GeV. The result is non-perturbatively renormalized in a recently proposed hybrid scheme, and extrapolated to the continuum as well as the infinite momentum limit. We find a significant deviation of the pion and kaon DAs from the asymptotic form, and make a prediction for the SU(3) flavor breaking effect in the kaon DA.

**Authors:** HUA, Jun (Shanghai Jiao Tong University); HE, Jinchen; WANG, Wei (SJTU); YANG, yibo (I)

**Presenter:** HE, Jinchen

**Session Classification:** Session I