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The Mellin Moments of the Pion and the Kaon

We present a calculation of the second, third and fourth Mellin moments of the pion and the kaon in lattice QCD. We use one ensemble of gauge configurations with two degenerate light, the strange and charm quarks with masses tuned to their physical ones. The renormalization is carried out non-perturbatively using RI-MOM and the values at given at a scale of 2 GeV in the $\bar{MS}$ scheme. We explore SU(3) flavor symmetry breaking by calculating ratios between the different moments of pion and kaon. We used the computed Mellin moments to reconstruct the pion and kaon PDFs and compare with other lattice QCD and phenomenological determinations.

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