

Valance parton distribution of pion from lattice QCD

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We present a high-statistics lattice QCD determination of the valence parton distribution function (PDF) of pion, with a mass of 300 MeV, using two very fine lattice spacings of $a = 0.06$ fm and 0.04 fm. Our analysis use both RI-MOM and ratio-based schemes to renormalize the equal-time bi-local quark-bilinear matrix elements of pions boosted up to 2.4 GeV momenta. We reconstruct the x -dependent PDF, as well as infer the first few even moments of the PDF using the 1-loop perturbative LaMET framework. This talk is based on arXiv: 2007.06590.

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