

Direct lattice-QCD calculation of pion valence quark distribution

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Within the large momentum effective theory framework, we present the first direct lattice-QCD calculation of the valence quark distribution in the pion. Our results are comparable quantitatively with the results extracted from experimental data as well as from Dyson-Schwinger equation. Future calculations at physical pion mass and larger momentum will be able to discern discrepancies in various existing analyses.

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