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Lattice Calculation on Quark Helicity and Unpolarized PDF with LaMET

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In this report, an updated result on both quark helicity and unpolarized colinear PDFs are calculated using CLQCD ensembles within the framework of LaMET. This calculation is dedicated to give one of the newest results with continous extrapolation performed on physical point. NNLO Wilsonian coefficients and matching kernels with leading-renormalon resummation and renormalization group resummation are applied in order to improve the signal-noise ratio. With all these setups and techniques, we hope to obtain higher accuracy results of helicity and unpolarized PDFs comparable with global fits.

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