

Partonic structure of the proton from large-momentum effective theory

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Partonic properties of the proton involve Minkowski light-front correlations and cannot directly be solved through the standard lattice field theory method. I propose an effective theory approach to obtain light-front physics through calculating the physical properties of the proton at moderately large momenta (boost factor $\gamma = 2 \sim 5$) on lattice, and expanding them around $\gamma = \infty$. Recent calculations have demonstrated significant potential of this large-momentum effective theory approach.

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