

XVth Quark Confinement and the Hadron Spectrum



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Parton Distributions from Lattice and Impacts on Global QCD Analysis

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There have been rapid developments in the direct calculation in lattice QCD (LQCD) of the Bjorken- x dependence of hadron structure through large-momentum effective theory (LaMET) and other similar effective approaches. These methods overcome the previous limitation of LQCD to moments (that is, integrals over Bjorken- x) of hadron structure, allowing LQCD to directly provide the kinematic Bjorken- x regions where the experimental values are least known. In this talk, I will show some selected recent progress along these directions and examples of how including lattice-QCD calculations in the global QCD analysis can play a significant role in improving our understanding of parton distributions in the future.

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