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First Renormalized Parton Distribution Functions from Lattice QCD HUEY-WEN LIN, Michigan State Univ, LP3 COLLABORATION — We present the first lattice-QCD results on the nonperturbatively renormalized parton distribution functions (PDFs). Using X.D. Ji's large-momentum effective theory (LaMET) framework, lattice-QCD hadron structure calculations are able to overcome the longstanding problem of determining the Bjorken-x dependence of PDFs. This has led to numerous additional theoretical works and exciting progress. In this talk, we will address a recent development that implements a step missing from prior lattice-QCD calculations: renormalization, its effects on the nucleon matrix elements, and the resultant changes to the calculated distributions.

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