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Transverse Single-Spin Asymmetries and the Universal Nature of Transversity PDFs and Nucleon Tensor Charges

Thursday, 30 May 2024 15:00 (30 minutes)

I will report on recent QCD global analyses of transverse single-spin asymmetries involving two different approaches: transverse momentum dependent (TMD)/collinear twist-3 (CT3) observables involving single-hadron FFs, and twist-2 collinear observables involving dihadron fragmentation functions (DiFFs). A byproduct of these studies is the extraction of the transversity PDFs and calculation of the nucleon tensor charges. I will discuss new developments in the theory and phenomenology of DiFFs in determining the transversity PDFs and examine their compatibility with the TMD/CT3 approach as well as lattice QCD computations of the nucleon tensor charges.

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