

EXPERIMENTAL OVERVIEW OF GPDs AND TMDs

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A general framework to describe the parton distribution in the nucleon is the Wigner distribution, or with a Fourier transformation to the generalized transverse momentum dependent (GTMD) parton distribution. It is related to the TMDs and the GPDs via the integration over transverse coordinates or the transverse momenta. Both the TMDs and the GPDs provide three dimensional partonic structures. Major progress has been made in the last decade or so in accessing GPDs and TMDs experimentally. In this presentation, I will briefly review what we have learned and what to expect in the next decade or more, particularly in the context of the upcoming experimental program at the upgraded 12-GeV Jefferson Lab.

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