

Abstract Submitted
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Distribution of Angular Momentum in the Transverse Plane

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Fourier transforms of GPDs describe the distribution of partons in the transverse plane. The 2nd moment of GPDs has been identified by X.Ji with the angular momentum (orbital plus spin) carried by the quarks - a fundamental result that is being widely utilized in the spin decomposition of a longitudinally polarized nucleon. However, I will demonstrate that, despite the above results, the Fourier transform of the 2nd moment of GPDs does not describe the distribution of angular momentum in the transverse plane for a longitudinally polarized target.

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