

Studying gluon GPDs at the Electron Ion Collider via DVMP

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Hard exclusive meson electroproduction processes, also known as deeply virtual meson production (DVMP), are complimentary to the deeply virtual compton scattering (DVCS) reaction. In DVMP, the scattering reaction produces a meson instead of a photon, and through the study of heavy vector meson reactions, such as J/ψ , it is possible to probe gluon GPDs and ultimately provide information about saturation when studying the evolution of gluon spatial distribution.

The work presented focuses on studies of $J/\psi \rightarrow e^+ e^-$ events from ep collisions, and the evaluation of projected detector performance for DVMP measurements in ePIC, the current EIC detector concept.