

# Unraveling the internal structure of the proton at Jefferson Lab and at the future EIC

## 2025.04.18 (Fri) 10:00-12:00

#### Venue: S4-625



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#### Abstract :

Understanding Quantum Chromodynamics (QCD) at large distances remains one of the main outstanding problems of nuclear physics. Investigating the internal structure of hadrons probes QCD in the non-perturbative domain and can help unravel the spatial extensions of nature's building blocks. Deeply Virtual Compton Scattering (DVCS) is the easiest reaction that accesses the Generalized Parton Distributions (GPDs) of the nucleon. GPDs offer the exciting possibility of mapping the 3-D internal structure of protons and neutrons by providing a transverse image of the constituents as a function of their longitudinal momentum. A vigorous experimental program is currently pursued at Jefferson Lab (JLab) to study GPDs through DVCS. We will review recent published results. We will conclude by discussing the future Electron-Ion Collider, which will complete this program by studying the gluon content of nucleons and nuclei.