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Double Deeply Virtual Compton Scattering (DDVCS) at 22 GeV

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One of the main challenges in the extraction of Generalized Parton Distributions (GPDs) from the currently available experimental data is that experimental observables can access only two of three variables, x, ξ , and t, that define the GPDs. The variable \boxtimes is integrated over in the DVCS and TCS amplitudes due to the loop in the "handbag" diagrams. The only information that can be accessed in spin asymmetries is GPDs at the \boxtimes = $\pm \boxtimes$ point. The Double Deeply Virtual Compton Scattering (DDVCS) process, where both the incoming and outgoing photons have large virtualities, allows for independently mapping the GPDs along all three variables (\boxtimes , \boxtimes , and t). In this talk, I will discuss the possibilities of DDVCS measurements at JLab and the importance of such measurements with 12 GeV and 22 GeV electron beams.

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