## 22nd International Spin Symposium



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## **Time Like Compton Scattering**

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Generalized Parton Distributions (GPDs) provide a theoretical tool for 3D tomography of the nucleon in transverse coordinate- and longitudinal momentum space. The simplest and cleanest way to access the GPDs of the nucleon is Deeply Virtual Compton Scattering (DVCS). The inverse process, where the incoming photon is real and the outgoing one has a large timelike virtuality (subsequently producing a lepton pair) is known as Timelike Compton Scattering (TCS). Measuring both can not only reduce uncertainties in the determination of GPDs, but also demonstrate their universality –as was done for PDFs by measuring (spacelike) DIS and (timelike) Drell-Yan. This talk will focus on the TCS program at Jefferson Lab, where experiments E12-12-001 (with CLAS12 in Hall B) and E12-12-006A (with SoLID in Hall A) have been approved for running with circularly polarized photon beams and unpolarized targets, while other beam- and target polarizations will follow in the future. In different kinematics, probing the sea quarks at lower x, TCS would also be an important measurement for a future Electron-Ion Collider (EIC).

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