

Abstract Submitted  
for the APR21 Meeting of  
The American Physical Society

**Exploring GPDs using Timelike Compton Scattering with SoLID at Jefferson Lab**<sup>1</sup> ZHIWEN ZHAO, Duke University, SOLID COLLABORATION COLLABORATION — To understand the nucleon structure described by Generalized Parton Distributions, Timelike Compton Scattering (TCS) has become a new and unique tool. It is sensitive to the same GPDs which the spacelike deeply virtual Compton scattering (DVCS) also accesses and can be used to test GPD universality. The TCS reaction ( $\gamma + p \rightarrow e^+ + e^- + p$ ) has multiple final state particles and small cross section. A large acceptance and high luminosity ( $10^{37}/\text{cm}^2/\text{s}$ ) detector like SoLID is ideal to cover its physics in broad kinematic space. The experiment will collect high quality data to provide crucial input for global fits of GPDs. In this talk, I will give an overview of the planned experiment and highlight some projected physics results.

<sup>1</sup>This work is supported in part by the U.S. Department of Energy under Contract No. DE-FG02-03ER41231.

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Date submitted: 08 Jan 2021

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