

Abstract Submitted
for the SES05 Meeting of
The American Physical Society

Perturbative Calculation of Nucleon Compton Scattering

RICHARD THOMSON, CHUENG JI, North Carolina State University — Perturbative calculations of proton Compton scattering are compared with recent experimental results from JLAB. Normalization of the results using the proton form factor suggest that experimental cross sections for real Compton scattering (RCS) are approaching our calculated results as CM energy, W , increases. A recent virtual Compton scattering (VCS) experiment suggests that, for large W , the cross section becomes independent of $Q^2 = -(4\text{-momentum of the virtual photon})^2$. This hypothesis is considered in the light of our perturbative calculations for VCS. Finally, we explore a link between the perturbative approach to DVCS and the handbag diagram approach using GPDs.

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Date submitted: 04 Aug 2005

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