An experiment to measure the helicity correlation $A_{LL}$ in Compton scattering

MELISSA COMMISSO, University of Virginia, E05-101 COLLABORATION — Real Compton scattering from the proton has the potential to resolve outstanding questions regarding the applicability of pQCD to exclusive reactions at intermediate energies, as well as providing access to unique form factors describable in terms of Generalized Parton Distributions (GPD’s). We will describe an approved JLab experiment, E05-101, that will utilize Compton scattering to provide a precise, first ever measurement of the helicity correlation $A_{LL}$ at large $s$ and $-t$ (9 and 6.4 GeV/$c^2$, respectively). The motivation, experimental setup, and expected results will be presented.