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Beam Asymmetry in $\gamma p \to \eta\ \Delta^+$ at GlueX[1] VARUN NEELAMANA, JONATHAN ZARLING, ZISIS PAPANDREOU, Univ of Regina, GLUEX COLLABORATION — The photo-production mechanism used in the GlueX experiment by impinging an 8.2-8.8 GeV linearly polarized photon beam on a liquid hydrogen target allows the mapping of light mesons in unprecedented detail with particular interest in exotic meson candidates. Polarization observables such as beam asymmetry Σ, extracted from azimuthal (ϕ) angular distributions between the meson production plane and the polarized photon beam, help in understanding production mechanisms and quasi-particle exchange processes using Regge theory. We report preliminary results on the beam asymmetry measurements for η in $\gamma p \to \eta\ \Delta^+$. The reaction $\gamma p \to \eta\ \Delta^+$ provides an opportunity for validation of previous η asymmetry measurements and theoretical calculations.

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Varun Neelamana
Univ of Regina

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