

Abstract Submitted
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Deep Exclusive π^0 and η Electroproduction with CLAS at Jefferson Lab PAUL STOLER, Rensselaer Polytechnic Institute, CLAS COLLABORATION — The CLAS collaboration at Jefferson Lab has undertaken a series of measurements of exclusive π^0 and η electroproduction at a beam energy ~ 6 GeV over a large kinematic coverage in Q^2 , t and x_B . New results of extracted structure functions $\sigma_L + \sigma_T$, σ_{LT} and σ_{TT} , are presented in the kinematic range Q^2 from 1.2 to 3.2 GeV^2/c^2 , $|t|$ from $|t_{min}|$ to 1.2 GeV^2/c^2 and x_B from 0.1 to 0.6. Recent theoretical work [1,2] indicate that pseudoscalar meson production is uniquely sensitive to quark helicity-flip processes. The new results, together with CLAS measurements of beam spin asymmetries A_ϕ [3] and cross section ratios $\sigma(\pi^0)/\sigma(\eta)$, compared with theoretical calculations [1,2] that are based on the helicity-flip transversity GPDs, provide supporting evidence that pseudoscalar meson production at these kinematics may be dominated by the handbag mechanism and helicity-flip transversity GPDs.

[1] S.V.Goloskokov and P.Kroll, Eur.Phys.J. A47,112 (2011).

[2] G.R. Goldstein, J.O.Gonzalez and S.Liuti, Phys. Rev., D84,034007(2011).

[3] R.DeMasi, et, al. (CLAS Collaboration), Phys.Rev., C77,042201(2008)

Paul Stoler
Rensselaer Polytechnic Institute

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