

Abstract Submitted  
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**$Q^2$ -Evolution of the Spin Structure Function  $g_1(x, Q^2)$  of the Proton and the Deuteron** YELENA PROK, Old Dominion University, PETER BOSTED, Jefferson Lab, NICHOLAS KVALTINE, University of Virginia, CLAS COLLABORATION — Inelastic scattering using polarized nucleon targets and polarized charged lepton beams allows the extraction of spin structure functions that provide information about the helicity structure of the nucleon. A program designed to study such processes at low and intermediate  $Q^2$  for the proton and deuteron has been pursued by the CLAS Collaboration at Jefferson Lab since 1998. The latest inclusive data with high statistical precision were measured using polarized 6 GeV electrons incident on a 2.5% r.l. polarized ammonia target. In the framework of pQCD, these results can be used to better constrain the polarization of quarks and gluons in the nucleon, as well as high-twist contributions. Some preliminary results will be shown, along with the expected impact on the NLO global fits and phenomenological models of valent spin structure.

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