Measuring the Neutron and ^{3}He Spin Structure at Low Q^2 VIN-CENT SULKOSKY, The College of William and Mary, E97-110 COLLABORA-TION, HALL A COLLABORATION — Originally derived for real photon absorption, the Gerasimov-Drell-Hearn (GDH) sum rule was first extended to non-zero Q^2 in 1989. The extension of the sum rule provides a unique relation, valid at any Q^2, that can be used to study the nucleon spin structure. The goal of Jefferson Lab experiment E97-110 is to perform a precise measurement of the Q^2 dependence of the generalized GDH integral and of the moments of the neutron and ^{3}He spin structure functions between 0.02 and 0.3 GeV^2. This Q^2 range will allow us to test predictions of Chiral Perturbation Theory, and verify the GDH sum rule by extrapolating the integral to the real photon point. This measurement also provides a better understanding of the nucleon resonances. The data have been taken in Hall A using the Jefferson Lab high polarization continuous electron beam and a polarized ^{3}He target. The status and perspectives of the data analysis will be discussed, and preliminary results will be shown.

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