

Abstract Submitted
for the DNP10 Meeting of
The American Physical Society

Neutron Structure Functions at Large x from CLAS Measurements on Deuterium¹ SEBASTIAN KUHN, Old Dominion University, CLAS COLLABORATION — The CLAS collaboration has measured inclusive structure functions in the resonance region and at large x in electron scattering on polarized and unpolarized deuterium targets. In the unpolarized case, we have used a novel spectator tagging method to extract, for the first time, the neutron structure function $F_{2n(x,Q^2)}$ nearly free of kinematic smearing and nuclear model uncertainties. In the polarized case, the spin structure functions g_1 and A_1 of the neutron were extracted using a new unfolding procedure, yielding the first data of this kind in the resonance region. In this talk, the techniques employed will be discussed and the results of both experiments will be presented.

¹Supported by a grant from the U.S. Department of Energy.

Sebastian Kuhn
Old Dominion University

Date submitted: 02 Jul 2010

Electronic form version 1.4