Abstract Submitted
for the APR06 Meeting of
The American Physical Society

Measurements of Hydrogen and Deuterium Inclusive Resonance Cross Sections at Intermediate Q^2 for Parton-Hadron Duality Studies. SIMONA MALACE, Hampton University, JEFFERSON LAB HALL C E00-116 COLLABORATION — Results from the Jefferson Lab E00-116 experiment that ran in Summer of 2003 will be presented. The experiment extended to higher Q^2 the precision measurements of inclusive nucleon resonance electroproduction cross sections from hydrogen and deuterium targets. The data cover a kinematic range of (3.9 – 7.2) GeV^2 in Q^2 and (0.5 – 0.9) in x, and will be used in conjunction with the elastic and inelastic data for precision experimental tests of parton-hadron (Bloom-Gilman) duality in the structure functions. E00-116 data that access the high x region will also be used to constrain higher moments of the structure functions and to extract matrix elements of higher-twist operators. This data will also provide a constraint for the F_2^d/F_2^p ratio and therefore possibly be of utility in reducing the uncertainties on pdf curves at high x.

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Date submitted: 13 Jan 2006 Electronic form version 1.4