

Abstract Submitted
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Exploring nucleon PDFs and quark-hadron duality from inclusive electron scattering data in the resonance region ASTRID HILLER BLIN, VICTOR MOKEEV, WOLODYMYR MELNITCHOUK, Thomas Jefferson National Accelerator Facility, JPAC COLLABORATION, CLAS COLLABORATION — We present our study of proton structure functions in view of the new CLAS12 experiments, which are to study inclusive electron scattering at a wide Q^2 range and with a broad coverage over Bjorken variable x (N^* region and above) at any given Q^2 . So far, CLAS experiments have achieved major advances in the extraction of electrocouplings of most nucleon resonances in the mass range up to 1.8 GeV, showing consistency between the results from different meson electroproduction channels. We evaluate the contributions from the resonances to inclusive electron scattering F_2 and F_L functions using the electrocoupling data as input, for the first time. Similarly, the contributions to the polarized structure functions g_1 and g_2 can be readily obtained as well. These studies are important for a future precise extraction of proton PDFs in the resonance region and for tests on quark-hadron duality.

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