

DIS2023: XXX International Workshop on Deep-Inelastic Scattering and Related Subjects



Contribution ID: 149

Type: Parallel talk

F2p and F2d extractions at large Bjorken X from $h(e, e')$ and $d(e, e')$ cross sections measured during E12-10-002 in Hall C at Jefferson Lab

Thursday, 30 March 2023 11:50 (20 minutes)

Extractions of the structure functions from inclusive $h(e, e')$ and $d(e, e')$ reactions are important for the study of nucleon structure. Such extractions help with constraining the PDF (specially at large Bjorken X), facilitate the studies of Quark Hadron Duality and are important for non-singlet moments calculation as a test of LQCD and many more. Experiment E12-10-002 ran in Hall C at JLab in spring 2018 with a focus on measuring the precession cross sections on h and d for F2 structure functions extraction. Our measurements cover a large kinematic range in X from 0.2 to 1.0, and in Q^2 from 4 to 16 GeV^2 .

I will show the results of $h(e, e')$, $d(e, e')$ cross sections and F2 structure functions, in the context of exploring the quark-hadron duality with a new method.

Submitted on behalf of a Collaboration?

No

Participate in poster competition?

Primary author: BISWAS, Debaditya (Virginia Tech)

Presenter: BISWAS, Debaditya (Virginia Tech)

Session Classification: WG 1

Track Classification: WG1: Structure Functions and Parton Densities