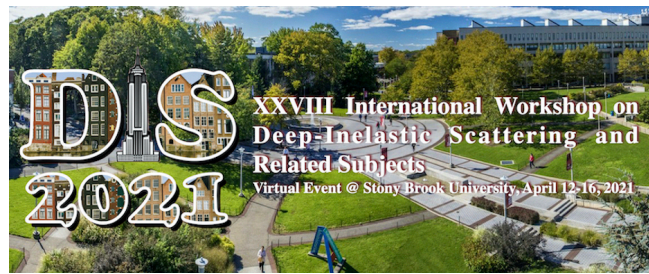


# XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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## Study of proton parton distribution functions at high $x$ using ZEUS data

*Tuesday, 13 April 2021 11:05 (18 minutes)*

At large values of  $x$  the parton distribution functions (PDFs) of the proton are poorly constrained and there are considerable variations between different global fits. Data at such high  $x$  have already been published by the ZEUS Collaboration, but not yet used in PDF extractions. A technique for comparing predictions based on different PDF sets to the observed number of events in the ZEUS data is presented. It is applied to compare predictions from the most commonly used PDFs to published ZEUS data at high Bjorken  $x$ . A wide variation is found in the ability of the PDFs to predict the observed results. A scheme for including the ZEUS high- $x$  data in future PDF extractions is discussed.

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**Session Classification:** Structure function and parton densities

**Track Classification:** Structure Functions and Parton Densities