

Abstract Submitted  
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**Systematics of Deuteron Smearing Corrections in Global PDF fits**<sup>1</sup> ALBERTO ACCARDI, Hampton U. and Jefferson Lab — Use of DIS data on light  $A=2,3$  nucleus targets for up and down quark flavor separation at large  $x$  crucially depends on the theoretical treatment of nuclear effects such as binding and Fermi motion, and off-shell deformation of the quark and gluon structure of bound nucleons. The amount and precision of available data from JLab 6 and, increasingly, from the JLab 12 experimental programs require a correspondingly precise treatment of nuclear corrections. In this talk, I will discuss recent work that scrutinizes systematic uncertainties in the so-called nuclear smearing, and its applications to global QCD fits of parton distribution functions at large  $x$  values.

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