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Abstract for an Invited Paper for the SES16 Meeting of the American Physical Society

Comparison of the F2 Structure Function in Iron as Measured by Charged Lepton and Neutrino Probes NARBE KALANTARIANS, Virginia Union University

World data for the structure function F_2 for Iron from charged lepton and neutrino scattering experiments are compared. The observations cleanly underscore previously observed hints of a difference in the behavior of the data between charged lepton and neutrino scattering, notably in the anti-shadowing region where the Bjorken scaling variable x is below 0.15. The charged lepton data appear to undergo shadowing/anti-shadowing whereas the neutrino data seem to exhibit no nuclear effects. Moreover, we find very good agreement between the different types of probes in the x region above 0.15. Details and results of the data comparison are shown in this talk.