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Nuclear EMC effect in the valence region

We discuss nuclear corrections to the DIS structure functions focusing at the region of large Bjorken x . We present a detailed comparison with recent measurements of nuclear ratios at JLab: BONUS experiment [1] (deuterium), MARATHON experiment [2] (^3He and ^3H targets) and Hall C [3] and CLAS collaboration [4] data. We show that the data at large x can be well described by a combined effect of nuclear momentum distribution, binding and off-shell correction [5,6]. We also discuss the implication of this approach to extract the ratio $F_2(\text{neutron})/F_2(\text{proton})$ from recent MARATHON measurement [2].

References

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Primary authors: KULAGIN, Sergey (INR RAS, Moscow, Russia); PETTI, Roberto (USC, Columbia, SC)

Presenter: KULAGIN, Sergey (INR RAS, Moscow, Russia)

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