Recent Analyses of Flavor Dependence of the EMC effect

NADIA FOMIN, University of Tennessee, Knoxville, JOHN ARRINGTON, Argonne National Laboratory — The modification of nuclear quark distributions, known as the EMC effect, first observed 40 years ago, has been under study for several decades and has recently become been an area of active theoretical interest and work as well. Electron scattering data on light nuclei from the 6GeV era at Jefferson lab yielded some suggestive results, ruling out previously favored simple density or A dependent pictures. Additionally, a correlation was observed between the size of the EMC effect and the nuclear dependence of short-range N-N correlations, which are measured in a very different kinematic regime. This correlation has been an object of intense interest and many analysis efforts, looking for clues of isospin dependence in the EMC effect as well as using it to inform upcoming experiments. Existing measurements and results will be reviewed and goals for upcoming measurements presented.

1This work was supported by the U.S. Department of Energy, Office of Science, Office of Nuclear Physics, under contract DE-SC0013615.

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Date submitted: 26 Jun 2020