Di-hadron azimuthal correlations in e-A DIS with CLAS\textsuperscript{1}

MIGUEL ARRATIA, University of California, Riverside, CLAS COLLABORATION — We present a measurement of the nuclear dependence of di-hadron production in deep-inelastic scattering off nuclei using the CLAS detector at Jefferson Lab. We report results on the conditional suppression factor for charged pions using carbon, iron and lead data. By comparing our results with single-hadron measurements, we can constrain correlations created by nuclear effects. Our results are much more precise than HERMES data (PRL 96, 162301) and include hadron identification. We also complement the HERMES measurements by reporting the first measurement of azimuthal correlations in DIS, which shows a strong suppression for back-to-back pion pairs in nuclei. This represents a new type of study in electron-nucleus collisions and serves as a pathfinder for future experiments with CLAS12 and the Electron-Ion Collider.

\textsuperscript{1}We acknowledge support through DOE Contract No. DE-AC05-06OR23177 under which Jefferson Science Associates, LLC operates the Thomas Jefferson National Accelerator Facility and was also supported by the University of California, Office of the President.