Abstract: Di-hadron Correlations in eA scattering in the CLAS experiment

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Two of the questions posed by the 2023 Nuclear Science Long Range Plan are how hadrons produced in deep inelastic scattering of electrons are correlated with one another, and how the nuclear medium modifies the hadronization process. The results we present in this talk on azimuthal correlations in $\pi^+\pi^-$ and π^+p pairs measured by the CLAS collaboration at Jefferson Lab seek to answer both of these questions. We find that the measured correlation functions peak at $\Delta\phi = \pi$ and that this peak is wider for heavier nuclei than for deuterium. We will also give predictions for similar planned measurements in a follow-up experiment with the upgraded CLAS12 detector setup, which features a higher beam energy, higher luminosity, beam polarization (which was absent in the previous measurement), and improvements in particle identification.