Contribution ID: **82** Type: **Parallel talk**

Di-pion correlations in nuclear DIS using the CLAS detector

Wednesday, 29 March 2023 09:00 (20 minutes)

The CLAS Collaboration presents 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 the first measurement of azimuthal correlations in nuclear DIS, and their dependence on kinematic variables such as rapidity separation and the transverse momenta of the two pions. We observe that the distribution of the azimuthal separation between pions peaks at π, but this peak becomes wider and shorter for heavier nuclei compared to deuterium, indicating a "broadening" of the correlations. 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.

Submitted on behalf of a Collaboration?

Yes

Participate in poster competition?

No

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