Fiducial Cuts on CLAS for the E5 Data Set

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— The Thomas Jefferson National Accelerator Facility, in Newport News, Virginia, is home to CLAS (CEBAF Large Acceptance Spectrometer) which observes the scattering of an electron beam on a nuclear target. The acceptance of the detector is the ratio between the events we expect to observe in an ideal detector and the data we actually measure with CLAS. In order to analyze data from regions of well-understood acceptance, we generated electron and proton fiducial cuts on CLAS, fitting a trapezoidal function to the azimuthal dependence in a particular scattering angle bin. Previously, we analyzed the 2.56-GeV, normal torus polarity data from the E5 run period. Our current analysis extends the method to the 2.56-GeV, reversed-torus polarity and the 4.23-GeV normal-polarity data sets of the E5 running period. We will compare the effects of fiducials cuts under these different running conditions. These results are consistent with our expectations, validating the use of fiducial cuts to isolate stable efficiency.