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Impulse Approximation limitations to the $(e, e'p)$ reaction on ^{208}Pb: search for long range correlations at high missing momenta
ALEXANDRE CAMSONNE, Jefferson Lab, JUAN CARLOS CORNEJO, Cal. State Univ., Los Angeles, JOAQUIN LOPEZ HERRAIZ, U. Comp. de Madrid, JEFFERSON LAB HALL A COLLABORATION — Experiment E06007 at Jefferson Lab measured cross sections for the $(e, e'p)$ reaction at constant $(\mathbf{q}, \omega)$ for $Q^2 = 0.81$ GeV^2 over a range of missing momenta from 0 to 500 MeV/c. Spectroscopic factors for states near the Fermi level are typically in the range of 0.65-0.70, a feature usually attributable to short range and long range correlations. It has been conjectured that long range correlations should also have a significant effect on the strength of high momentum components of single nucleon states near the fermi level. Cross sections for missing momenta from 300 MeV/c to 500 MeV/c for the ^{208}Pb(e,e'p) reaction going to the low lying states of ^{207}Tl will be presented and compared to theoretical predictions using various prescriptions for including correlations. Data from two recent runs will be presented.

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