Abstract Submitted for the DNP08 Meeting of The American Physical Society

Impulse Approximation limitations to the (e,e'p) reaction on ^{208}Pb : identifying correlations in the nuclear medium JUAN CARLOS CORNEJO, California State University, Los Angeles, JOAQUIN LOPEZ HERRAIZ, Universidad Complutense de Madrid, Madrid, Spain, JEFFERSON LAB HALL A COLLABORATION — Experiment E06007 at Jefferson Lab measured cross sections for the (e,e'p) reaction at constant (\mathbf{q},ω) for $\mathbf{Q}^2=0.81~\mathrm{GeV}^2$ 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 correlations. A consistent description of nuclear structure requires that these correlations should also have a significant effect on the strength of high momentum components of single nucleon states. Cross sections for missing momenta from 300 MeV/c to 500 MeV/c for the $^{208}\mathrm{Pb}(e,e'p)$ reaction going to the low lying states of $^{207}\mathrm{Tl}$ will be presented and compared to theoretical predictions using various prescriptions for including correlations.

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