Abstract Submitted for the DNP08 Meeting of The American Physical Society

Impulse Approximation limitations to the (e, e'p) reaction on ²⁰⁸Pb: identifying relativistic effects in the nuclear medium via A_{TL} measurements ALEXANDRE CAMSONNE, Jefferson National Accelerator Facility, Newport News, VA, 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 $\mathbf{Q}^2 = 0.81 \text{ GeV}^2$ over a range of missing momenta from 0 to \pm 500 MeV/c. A controversial issue over the last decades has been the role of relativity in the description of nuclei. A distinctive signature of dynamical relativistic effects in the nucleon wave function is the asymmetry, A_{TL} in the cross section measured forward or backward of the three momentum transfer \mathbf{q} . Results for the integrated cross sections for producing the low lying states of ²⁰⁷Tl for both positive and negative missing momenta will be presented and compared to relativistic and nonrelativistic theoretical predictions.

> Konrad Aniol California State University, Los Angeles

Date submitted: 30 Jun 2008

Electronic form version 1.4