

Abstract Submitted  
for the APR06 Meeting of  
The American Physical Society

**Pionic Contributions in a Quark Model of Nucleons and Nuclei<sup>1</sup>**

T. GOLDMAN, RICHARD R. SILBAR, Los Alamos National Laboratory — A successful relativistic quark model of small nuclei[1] did not include long-range effects of pion exchanges between quarks. We add these contributions to the model with a short-range cutoff (to avoid double counting). We report on the changes induced in model parameters and binding energies. [1]T. Goldman, K.R. Maltman, G.J. Stephenson, Jr., and K.E. Schmidt, *Nucl. Phys.* **A481**, 621 (1988).

<sup>1</sup>Work supported by the U.S. Department of Energy under contract W-7405-ENG-36.

Terry Goldman  
Los Alamos National Laboratory

Date submitted: 18 Jan 2006

Electronic form version 1.4