APR08-2008-000300

Abstract for an Invited Paper for the APR08 Meeting of the American Physical Society

Investigating Neutron Polarizabilities through Compton Scattering on Light Nuclei DEEPSHIKHA SHUKLA, George Washington University

This talk will focus on elastic Compton scattering on He-3 as an instrument to extract the neutron polarizabilities. The calculations for this process have been performed for photon energies comparable to the pion mass within the framework of Chiral effective field theory. The results show that these computations, when used in concert with future data from HIGS and results from elastic deuteron Compton scattering, should give significant new information about the neutron polarizabilities.