

HAW14-2014-020111

Abstract for an Invited Paper
for the HAW14 Meeting of
the American Physical Society

Search for Hybrid Mesons via Photoproduction at Jefferson Lab

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Studies of meson spectra via strong decays provide insight regarding QCD at the confinement scale. These studies have led to phenomenological models for QCD such as the constituent quark model. However, QCD allows for a much richer spectrum of meson states which include extra states such as hybrids, exotics, multi-quarks, and glueballs. Within the past two decades a number of experiments have put forth tantalizing evidence for the existence of exotic hybrid mesons in the mass range below 2 GeV. Theoretical calculations indicate that photoproduction should provide an ideal hunting ground for gluonic hybrid mesons. I report on a search for photoproduced mesons using the CLAS at Jefferson Lab. CLAS has acquired the largest statistics to date for peripheral meson photoproduction at intermediate photon energies. Results on several final states will be presented. I will conclude with an overview of future efforts to search for exotic mesons utilizing the 12 GeV CEBAF accelerator in conjunction with upgraded and new experimental facilities.