

Abstract Submitted
for the APR15 Meeting of
The American Physical Society

Meson Spectroscopy in Coherent Production off ^4He with CLAS

BAYRAM TORAYEV, Old Dominion University, CLAS COLLABORATION — Meson spectroscopy requires disentanglement of states with different quantum numbers that decay to the same final states, as well as separation of meson-bayron and purely mesonic states. Coherent scattering off ^4He uniquely aids both by providing a spin and iso-spin zero target, simplifying partial wave analysis, and an unmodified recoil nucleus, eliminating background from bayron resonances . At Jefferson Lab, we conducted the first experiment for meson spectroscopy using coherent quasi-real photo-production on ^4He . This took place in Hall-B in 2009, using a 6 GeV electron beam and the CLAS detector. A new radial time projection chamber with high pressure gaseous target detects low-energy recoil ^4He nuclei. In this talk, status of the analysis and the first look on coherently produced mesonic final states will be presented.

Bayram Torayev
Old Dominion University

Date submitted: 09 Jan 2015

Electronic form version 1.4