

Rare Decays of Light Pseudoscalar and Vector Mesons in CLAS

M. Amaryan¹, G. Gavalian¹, C. Nepali¹

and the CLAS Collaboration

¹Old Dominion University, Norfolk, VA

Abstract

Preliminary experimental results on a light pseudoscalar and vector mesons in a decay modes not seen before are presented for the first time. These include electromagnetic decays $\eta \rightarrow \pi^+\pi^-\pi^0\gamma$, $\omega \rightarrow \pi^+\pi^-\gamma$, $\phi \rightarrow \pi^+\pi^-\gamma$ as well as G-parity violating decay $\phi \rightarrow \pi^+\pi^-\eta$. Mesons are produced in a high statistics photoproduction experiment on a hydrogen target with CLAS. The current status of the analysis and future prospects are discussed.