Abstract Submitted for the DNP13 Meeting of The American Physical Society

Polarization Observables for $\gamma p \to K^+ \Lambda$ using polarized photons on a longitudinally polarized target¹ FRANZ KLEIN, The Catholic University of America, CLAS COLLABORATION — The latest highlights of the N^* program at Jefferson Lab were photo-production experiments using frozen-spin targets inside the CLAS detector. All combinations of beam-target double-polarization observables were obtained for multiple reactions. Thanks to the self-analyzing properties of Λ all possible polarization observables for $K^+\Lambda$ are being extracted from the data resulting in a complete determination of the $K\Lambda$ amplitude, thus a least modeldependent determination of any resonances coupling to this channel. This talk will discuss the results of the first run period in 2007/2008 with longitudinally polarized frozen-spin target for this reaction: the beam-target asymmetries E and G as well as the target-recoil asymmetries $L_{x'}$ and $L_{z'}$.

¹Work supported by NSF.

Franz Klein The Catholic University of America

Date submitted: 01 Jul 2013

Electronic form version 1.4