

Abstract Submitted  
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**First results of the helicity asymmetry measurements for  $\pi^0$  photoproduction with FROST at Jlab** HIDEKO IWAMOTO, the George Washington University — One of the longstanding unsolved problems in the nuclear physics is that of the nucleon resonances  $N^*$  and  $\Delta^*$ . The lifetime of these intermediate states is very short since they decay strongly. Their parameters, mass, width, and coupling constants to various decay modes are not well known. To solve this problem, double polarization experiments are considered to be a very effective tool. I will present the result of a single pion photoproduction from the first double polarization experiment at Jefferson Lab and compare this result with the prediction of theoretical models.

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