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Rescattering of the $\Sigma^-(1385)$ and the K^+ on the proton, R.M. Davis (GWU), for the CLAS Collaboration REBECCA DAVIS, George Washington University, CLAS COLLABORATION — Due to the short lifetime of excited hyperons, studies on their scattering are lacking. Since neither beams nor targets can be created, the only possibility is to use final-state interactions. We studied the reaction $\gamma n \rightarrow K^+ \Sigma^-(1385)$, detecting the K^+ , π^+ , π^- , p in the final state. These data were obtained in the g10 experiment at Jefferson Lab, which used real photons and a deuterium target in the CLAS. The $\Sigma^-(1385)$ and the intermediate Λ were identified from their invariant masses. The additional 'spectator' proton was either detected or identified by missing mass. Once all particles were identified, we were able to look for high- t events with spectator proton momenta above 0.4 GeV/c. Though the statistics are limited, we plan to determine the quasifree and the rescattering cross sections.

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