

Abstract Submitted  
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**$\Sigma(1385)$  photoproduction on a proton target at Jefferson Lab** LEI GUO, Jefferson Lab, CLAS COLLABORATION — Previous investigation of the  $J^P = \frac{3}{2}^-$   $\Lambda(1520)$  decay in the Gottfried-Jackson (GJ) frame has suggested the dominance of  $K$  exchange in the electroproduction data ( $ep \rightarrow e'K^+\Lambda(1520)$ ) as opposed to the strong contribution of  $K^*$  exchange in the photoproduction data ( $\gamma p \rightarrow K^+\Lambda(1520)$ ). In the case of the  $\Sigma(1385)(J^P = \frac{3}{2}^+)$ , there has been no such study in the literature, probably due to the lack of available data. The recent large statistics ( $L = 75pb^{-1}$ ) photon-proton reaction data collected by the CLAS Collaboration at Jefferson Lab has made possible the detailed study of the  $\Sigma(1385)$  photoproduction through the reaction  $\gamma p \rightarrow K^+\Sigma(1385) \rightarrow K^+\Lambda(\pi^0)$ . Preliminary cross section results for the photon energy range of 1.5-3.8 GeV, as well as the angular distribution of the  $\Sigma(1385)$  decay in the GJ frame will be presented. The results could provide new constraints on the hadro-dynamic models for hyperon production, and help determine the production mechanisms of the  $\Sigma(1385)$  in photoproduction.

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