

Abstract Submitted
for the APR21 Meeting of
The American Physical Society

Dalitz plot analysis for the $\eta' \rightarrow \eta\pi\pi$ decay at GlueX¹ OLGA CORTES BECERRA, WILLIAM BRISCOE, IGOR STRAKOVSKY, George Washington University, GLUEX COLLABORATION — The study of the decay $\eta' \rightarrow \eta\pi\pi$ is interesting in many ways. First, the decay can be used to analyze the properties of the resonances $f_0(500)$ (or σ), where the scalar resonances contribution is predominant even if the decay is thought to be dominated by the contributions of the a_0 resonance. Second, the study of the $\eta' \rightarrow \eta\pi\pi$ decay may supply information to test predictions from χPT . Last, it offers the opportunity to constrain $\eta\pi$ scattering. In this talk, we report the progress in the analysis of the Dalitz plot for photoproduced η' , $\gamma p \rightarrow p\eta'$, for the decay channel $\eta' \rightarrow \eta\pi\pi$ using data obtained from the GlueX experiment in Hall D at Jefferson Laboratory.

¹This work is funded in part by DOE grant DE-SC0016583.

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Date submitted: 08 Jan 2021

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