

Abstract Submitted  
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**Photoproduction of the Cascade Hyperons at Jefferson Laboratory**<sup>1</sup> HARNEET GREWAL, JOHN PRICE, California State University, Dominguez Hills — The  $\Xi$ , or “Cascade” hyperon, is related to the proton by  $SU(3)_F$  symmetry. This means that their properties are expected to be related to one another, as are the properties of their respective excited states. This hints at the possibility of using the excited states in the  $\Xi$  spectrum to learn more about the excited states of the nucleon, which are hard to isolate in the laboratory due to their large widths. A systematic study of the excited states of the Cascade has been initiated at the Thomas Jefferson National Accelerator Facility (“Jefferson Lab”, or “JLab”) to map out the excited Cascade spectrum using the process  $\gamma p \rightarrow K^+ K^+ \Xi^-$ , which can in principle be used to look at the entire Cascade spectrum. This talk will present the motivations for this study, the current status of our work, and an outlook for the future.

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John Price  
California State University, Dominguez Hills

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