

Abstract Submitted
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Studying the Λp interaction with CLAS¹ ALEC THOMPSON, JOHN PRICE, CSU Dominguez Hills — The hyperon-nucleon interaction is of great interest to the nuclear physics community. Its magnitude is related to the well-measured pp interaction by $SU(3)_F$ symmetry, which should simplify its study under the right circumstances. It has great importance to the hypernuclear physics community, with a connection to astrophysics due to its implications on the study of nuclear matter at varying density. As part of a planned program of hyperon-nucleon interactions with the CLAS detector at the Thomas Jefferson National Accelerator Facility, we have begun a study of the Λp interaction. The Λ is produced in and tagged by the process $\gamma p \rightarrow K^+ \Lambda$, where its long mean life ($c\tau = 7.89$ cm) allows it to interact with secondary protons in the target. This talk will present the motivation, initial results, and future plans of this study.

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