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The Beam-Helicity Asymmetries for the Reactions $\gamma p \to pK^+K^-$, $\gamma p \to \Xi^- K^+ K^+$, and $\gamma p \to p\pi^+\pi^-$ RAFAEL BADUI, JASON BONO, LEI GUO, BRIAN RAUE, Florida Intl Univ, CLAS COLLABORATION — The first time measurement of the angular dependence of the beam-helicity asymmetry is demonstrated for the reactions $\gamma p \to pK^+K^-$ and $\gamma p \to \Xi^- K^+ K^+$. Both results are compared to the beam-helicity asymmetry of the reaction $\gamma p \to p\pi^+\pi^-$. The asymmetry for $\gamma p \to pK^+K^-$ is further studied as a function of the kinematical variables photon beam energy, invariant mass of the K^+K^- system, and invariant mass of the pK^- system. It is shown that the asymmetry is sensitive to these variables and thus are key observables in the modeling of the reaction's dynamics. The data obtained was from the CLAS g12 experiment.

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