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The strangeness program at GlueX

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The GlueX experiment located at Jefferson Lab studies the spectrum of hadrons using photoproduction on a LH_2 target in a wide variety of final states. With its detector system capable of measuring neutral and charged final state particles over almost the full solid angle, and very good particle identification capabilities, GlueX can measure many different hadrons containing strangeness. A linearly polarized photon beam allows the measurement of polarization observables, which contain information about the production mechanisms involved in generating strange particles in photoproduction. In addition, GlueX can perform precise cross-section measurements, which help to study the spectrum of strange hadrons. In this presentation, the GlueX experiment is introduced, and recent progress of its strangeness program will be discussed. We will present recent results on $\Lambda(1520)$ spin-density matrix elements and ongoing studies of the $\Lambda(1405)$ lineshape. We will also present our recent progress on measurements of $\Lambda\bar{\Lambda}$ photoproduction and cross-section measurements of $\Xi^{(*)}$ photoproduction. Also, future prospects for strangeness measurements at GlueX will be discussed.

Primary author: PAULI, Peter (University of Glasgow)

Presenter: PAULI, Peter (University of Glasgow)

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