Simulations of excited Hyperon Spectroscopy at the proposed K-Long Facility

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The proposed K-Long Facility at JLab, which uses the GlueX detectors, will provide high statistics data in the sector of strange and multi-strange hadrons. Within the KLF it is proposed to produce a K_L^0-beam via the photoproduction of ϕ by untagged photons off an additional Be-target. Using this high intensity beam, facilitates the access to strangeness and its production on a liquid hydrogen target in the GlueX spectrometer. Finally the existing spectrometer is used to reconstruct final state particles. In this talk, we will report on the ongoing Monte Carlo simulations on hyperon production using the formation reaction of the $\Sigma^+(1670)$ as an example. We will focus on the differentiation of Kaon induced reactions in contrast to background reactions.