

Abstract Submitted
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A PWA of $p\pi^+\pi^-$ in photoproduction using CLAS MATTHEW BELLIS, Carnegie Mellon University, CLAS COLLABORATION — While the Constituent Quark Model does an excellent job of categorizing much of the observed baryon spectrum, there are multiplets which are conspicuously absent from the experimental data. With much of this data coming from $N\pi \rightarrow N\pi$ scattering and a small predicted coupling to $N\pi$, it is perhaps not surprising they have not yet been seen. The CLAS detector allows us to make a comprehensive search for these missing resonances in states that do not have $N\pi$ in either the initial or final state. We are engaged in a PWA of multiple final states using a covariant tensor formalism in a mass-independent approach. This allows us to extract the amplitudes for intermediate s -channel processes as well as measure the t -channel contribution. Resonances will be observed by motion in both intensity and phase. This talk will discuss the current status of the analysis of one of these channels: $\gamma p \rightarrow p\pi^+\pi^-$. We use isobars to model the intermediate Δ^{++} , Δ^0 and ρ^0 states. Differential and total cross sections will also be shown.

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