Abstract Submitted
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Cross Sections for Exclusive ω Photoproduction in the Energy Range 3—11.6 GeV MARK DALTON, Jefferson Lab, GLUEX COLLABORATION — The GlueX experiment at Jefferson Lab aims to study the light meson spectrum with an emphasis on the search for hybrid mesons. A tagged photon beam, with energies in the range 311.6 GeV is incident on a hydrogen target inside a detector with near-complete neutral and charged particle coverage. The experiment completed its first phase of data taking in 2018, producing orders of magnitude more data than previous photoproduction experiments in this energy regime. A good theoretical description of the production mechanisms will be needed to interpret any potential signals for exotic mesons. Photoproduction data on conventional mesons is very useful for this purpose, where the energy and t-dependence of production cross sections are complementary to polarization observables. We present new, high-statistics measurements of the cross section for exclusive photoproduction of $\omega(782)$ mesons.

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