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A Unitary and Relativistic Model for $\pi\eta N$ and $\pi\pi N$ Photoproduction ALVIN KISWANDHI, SIMON CAPSTICK, Florida State University, T.-S. HARRY LEE, Argonne National Laboratory — We investigate $\pi\eta N$ photoproduction by using a unitary and relativistic model based on the effective Lagrangian approach. Unitarity is ensured by using the Lippmann-Schwinger equation to iterate the vertices and dress the propagators to all orders, and by including all possible two-body and quasi-two-body intermediate channels. The approach we present here has also been used to investigate $\pi\pi N$ photoproduction. A comparison of our calculation to an existing $\pi\pi N$ photoproduction study is made, and shown to produce consistent results. This agreement convinces us that our ongoing study of $\pi\eta N$ photoproduction will produce similar interesting results.

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