## Abstract Submitted for the DNP10 Meeting of The American Physical Society

New Partial-Wave Analysis Results for  $\eta N$  and  $K\Lambda^1$  MANOJ SHRESTHA, D. MARK MANLEY, Kent State University — Previous measurements of  $\eta N$  and  $K\Lambda$  resonance couplings were based mainly on simplistic energydependent partial-wave analyses that violated unitarity. In this talk, new results will be presented based on a unitary multichannel partial-wave analysis that includes the channels  $\pi N$ ,  $\pi \pi N$ ,  $\gamma N$ ,  $\eta N$ , and  $K\Lambda$ . Partial-wave amplitudes for the isospin-1/2 reactions  $\pi N \to \eta N$  and  $\pi N \to K\Lambda$  were first obtained at c.m. energies up to 2.1 GeV from single-energy partial-wave analyses of available world data. Then the amplitudes were incorporated into a global energy-dependent fit in order to obtain resonance parameters and energy-dependent amplitudes consistent with S-matrix unitarity. We will discuss the more important amplitudes and compare results from our energy-dependent solution with observables. These results present an important step into developing a partial-wave description of  $\eta N$  and  $K\Lambda$  photoproduction that is fully consistent with information determined from hadronic scattering reactions.

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