



Contribution ID: 191

Type: Parallel talk

## Overview of photoproduction program at MAMI

*Friday 12 January 2018 15:20 (20 minutes)*

The A2 Collaboration in the Crystal Ball/TAPS experiment at the MAMI accelerator facility in Mainz, Germany has a diversified research program using real photons. The Crystal Ball/TAPS setup has the ability to provide almost full coverage in solid angle and is well suited to detect multi particle nal states. The experiments use high intensity circularly, linearly, or unpolarized photon beams and unpolarized or polarized targets. To fully understand the strong interaction in the non-pertubative region, the excitation spectrum of nucleons is an important tool to exploit. Comparing experimentally observed excited nucleon states to model predictions or lattice QCD calculations, large discrepancies arise, specically concernig the number of states. The electromagnetic coupling of photons to protons is dierent than that of neutrons in certain states. A complete partial wave analysis (PWA) can assist in yielding more information about any reaction with polarization observables playing a crucial role, as well as measurements of cross-sections. Spin observables are essential in disentangling the contributing resonant and non-resonant amplitudes, whereas cross-section data alone is not suicient for separating resonances. Recent results, the current status, and future plans of the A2 Collaboration will be discussed.

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**Session Classification:** Parallel Session 2