

Abstract Submitted  
for the DNP07 Meeting of  
The American Physical Society

**Real Photon Physics at MAMI**<sup>1</sup> AMAL AL KATRIB, WILLIAM BRISCOE, The George Washington University, MAINZ MICROTON A2 COLLABORATION — The scientific program at the Mainz Microtron (MAMI) is based on polarized electron and photon beams from the MAMI A-B-C accelerator complex with energies up to 1500 MeV. In order to deal with the energy increase, the photon tagger system has been extended and refurbished by the Glasgow University Nuclear Physics Group. It is now available for real photon experiments in the A2 hall. The Crystal Ball detector is being used regularly together with an inner detector for tracking and a forward crystal calorimeter (TAPS) for  $4\pi - \gamma$  coverage. A new data acquisition system with high-rate performance is in operation. Experiments are currently running using a liquid hydrogen/deuterium target. A cryogenic polarized frozen-spin target to be used in the Crystal Ball is near completion and will soon be used to provide polarized protons and deuterons (for polarized neutron experiments). A polarized Helium target is also under development. In this poster, we will present the current status of the experimental equipment and the role of student involvement in the experimental real photon program at MAMI.

<sup>1</sup>Supported in part by the US National Science Foundation Office of International Science and Engineering, US Department of Energy, and The George Washington University Research Enhancement Fund

Amal Al Katrib  
The George Washington University

Date submitted: 25 Jun 2007

Electronic form version 1.4