

Probing the nucleon and strongly interacting matter at MAMI

Tuesday, June 11, 2019 11:50 AM (35 minutes)

The talk will give an overview of the current and planned research program of the A2@MAMI collaboration. Our research program utilises the intense energy-tagged real photon beam provided by the Mainz/Glasgow tagger in conjunction with the Crystal Ball/TAPS calorimeters, ancillary charged particle detector systems and a range of polarised and unpolarised cryogenic target systems. This infrastructure enables a broad scientific program relating to the structure of nucleons, nuclei and hadronic matter in general.

The talk will include preliminary results from our ongoing program aiming to better establish the nature and electromagnetic coupling of the $d(2380)$ resonance, *whose existence has been evidenced in a range of nucleon-nucleon scattering reactions. The latest results from measurements of deuterium photodisintegration in the region of the $d(2380)$ with polarised photon beams and a large acceptance neutron recoil polarimeter will be presented.*

Primary authors: WATTS, Daniel (University of York); CRYSTAL BALL AT MAMI COLLABORATION

Presenter: WATTS, Daniel (University of York)

Session Classification: Plenary Session 2

Track Classification: Baryon spectrum through meson photoproduction