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**The Near-Threshold Pion Photoproduction Program at MAX-lab** G.V. O'RIELLY, Univ. of Massachusetts Dartmouth, MAX-TAGG COLLABORATION — Pion photoproduction near threshold is a fundamental process that can be used to test the predictions of chiral effective-field theories, dispersion theoretical approaches and other quark-based models of the nucleon. Despite the importance of having data on the energy and angular dependence for all four pion channels in the near-threshold region, only the  $\gamma p \rightarrow \pi^0 p$  channel has been studied extensively. The new Photon Tagging Facility at MAX-lab is uniquely suited to study pion photoproduction between threshold and the  $\Delta$ -resonance. A comprehensive program to investigate both charged channels,  $\pi^+ n$  and  $\pi^- p$ , as well as the neutral channel  $\gamma n \rightarrow \pi^0 n$  is underway at MAX-lab. This includes measurements of the angular distributions for  $\pi^+$  photoproduction from the proton and heavy nuclei in order to investigate the  $p$ -wave contributions to this process, as well as a measurement of the total cross section for  $\gamma n \rightarrow \pi^- p$  to enable the determination of the threshold  $E_{0+}(\pi^- n)$  amplitude. Complementing these measurements of the charged pion channels and the existing data on the  $\pi^0 p$  channel, an experiment to measure neutral pion photoproduction off the neutron is being developed. An overview of the planned MAX-lab pion program, together with preliminary results from measurements already performed will be presented.

- Prefer Oral Session  
 Prefer Poster Session

G.V. O'Rielly  
grant.orielly@umassd.edu  
Univ. of Massachusetts Dartmouth