

Abstract Submitted
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Photon Beam Monitors at MAX-lab¹ CHRISTOPHER SEYMOUR,
University of Massachusetts Dartmouth, MAX-TAGG COLLABORATION — An important objective for nuclear scientists is to describe the properties of nucleons in terms of the framework provided by QCD. The various theoretical approaches can be tested by comparing the predictions from the theories with the results from accurate measurements. The Photon Tagging Facility at MAX-lab in Lund, Sweden is capable of tagging photons with energies up to 200 MeV, which is ideal for testing fundamental nuclear processes in the low-energy region. Exploring the pion photo-production reaction near threshold will provide new high-quality data to compare with the predictions from various QCD-based theories. Careful monitoring of the photon beam characteristics is paramount to the success and accuracy of the experiment. Two beam monitoring systems are now in use with the tagged photon beam at MAX-lab. One system, the x-y Beam Monitor provides a way to detect horizontal or vertical shifts in the photon beam position. The second device, the In-Beam Monitor, is used to keep track of the photon flux and to monitor the tagging efficiency during the data acquisition. These measurements are crucial for the overall experiment. An overview of these two beam monitor systems, and their performance will be provided.

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