Abstract Submitted
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Tagging Efficiency for Nuclear Physics Measurements at MAX-lab NEVIN MILLER, University of Massachusetts Dartmouth, DAVID ELOFSON, Bridgewater State University, CODIE LEWIS, ERIN O'BRIEN, James Madison University, KELSEY BUGGELLI, KYLE O'CONNOR, GRANT O'RIELLY, University of Massachusetts Dartmouth, MAXTAGG TEAM — A careful study of the tagging efficiency during measurements of near threshold pion photoproduction and high energy Compton scattering has been performed. These experiments are being done at the MAX-lab tagged photon Facility during the June 2014 run period. The determination of the final results from these experiments depends on knowledge of the incident photon flux. The tagging efficiency is a critical part of the photon flux calculation. In addition to daily measurements of the tagging efficiency, a beam monitor was used during the production data runs to monitor the relative tagging efficiency. Two trigger types were used in the daily measurements; one was a logical OR from the tagger array and the other was from the Pb-glass photon detector. Investigations were made to explore the effect of the different trigger conditions and the differences between single and multi hit TDCs on the tagging efficiency. In addition the time evolution and overall uncertainty in the tagging efficiency for each tagger channel was determined. The results will be discussed.

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