Simulations of the In-Beam Performance of the CAESAR and Gretina Arrays With Liquid-Hydrogen and Solid Targets\textsuperscript{1} SAMANTHA WILDONGER, Ursinus College — In order to plan gamma-ray spectroscopy experiments at the National Superconducting Cyclotron Laboratory (NSCL), we used Geant4 simulations of the CAESAR and Gretina arrays with the Ursinus College Liquid Hydrogen Target and a solid $^9$Be target. Analysis of the simulated data allows us to evaluate the precision of measured gamma-ray intensities, photopeak efficiencies, and the in-beam energy resolution of each array. The relative advantages of each array will be discussed.

\textsuperscript{1}Ursinus College, Supported by NSF grant no. PHY-0969002

Samantha Wildonger
Ursinus College

Date submitted: 24 Jul 2011