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Design and Characterization of a Collimated Neutron Beam User Facility at SUNY Geneseo STEPHEN PADALINO, MICHAEL KRIEGER, MEGAN RUSS, DANAE POLSIN, MOLLIE BIENSTOCK, DREW ELLISON, ANGELA SIMONE, SUNY Geneseo — The Collimated Neutron Beam (CNB) Facility at SUNY Geneseo provides users an opportunity to perform neutron experiments that require a low neutron background. Neutrons with energies up to 10 MeV are produced by a Plutonium-Beryllium (Pu-Be) source and are collimated to form a well characterized beam. A six foot high, 18 inch thick shielding wall made of water-bricks was built to reduce neutron background in the target area. Neutron and gamma radiation were extensively mapped throughout the facility using a calibrated Bonner sphere, Geiger counter, plastic scintillator and an HPGe detector. Potential uses for the CNB include neutron activation, time-of-flight, attenuation and neutron detector calibration experiments. A detailed description and layout of the facility will be displayed on the poster. Funded in part by a grant from the DOE through the Laboratory for Laser Energetics.

- Prefer Oral Session
 Prefer Poster Session

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