



The Department of Physics invites you to attend research proposal presentations by:

JUSTIN STILES

Evaluation of Solid-State Technology for Positron Emission Mammography Imaging

Supervisor: Dr. A. Reznik

Abstract: To address unmet patient needs in breast cancer screening and conform with the trends of personalized medicine, we designed and developed an organ specific Positron Emission Tomography (PET) system called Positron Emission Mammography (PEM). The developed PEM detector technology is based on novel high-gain solid-state Silicon Photo-multipliers (SiPMs) operating in Geiger-mode. The goal of this research is to characterize the performance of our newly developed PEM detectors by conducting a series of standardized tests that are aligned with the recommendations of the National Electrical Manufacturers Association (NEMA) guidelines. Reporting the values for Loss, Count Rate, Sensitivity, and Spatial Resolution of Si-PM's in this configuration will be the final goal of this work.

DATE: Thursday, AUGUST 22, 2019
TIME: 1:00 pm
Room: AT 1005