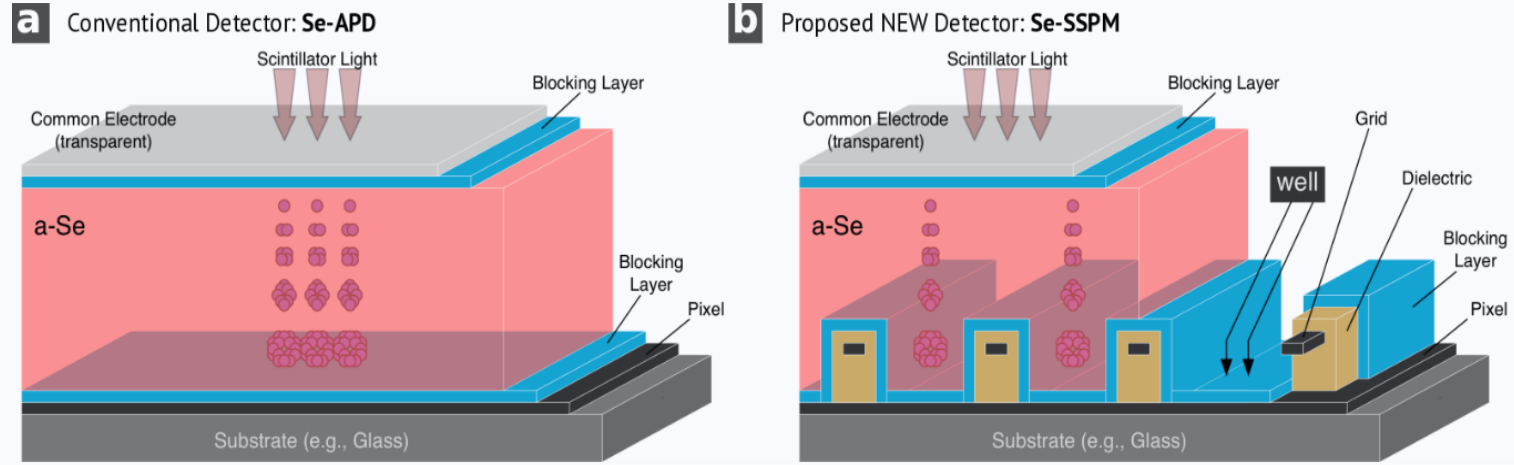
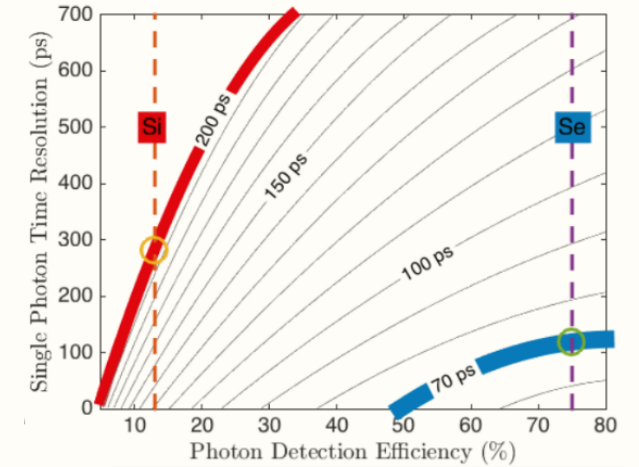


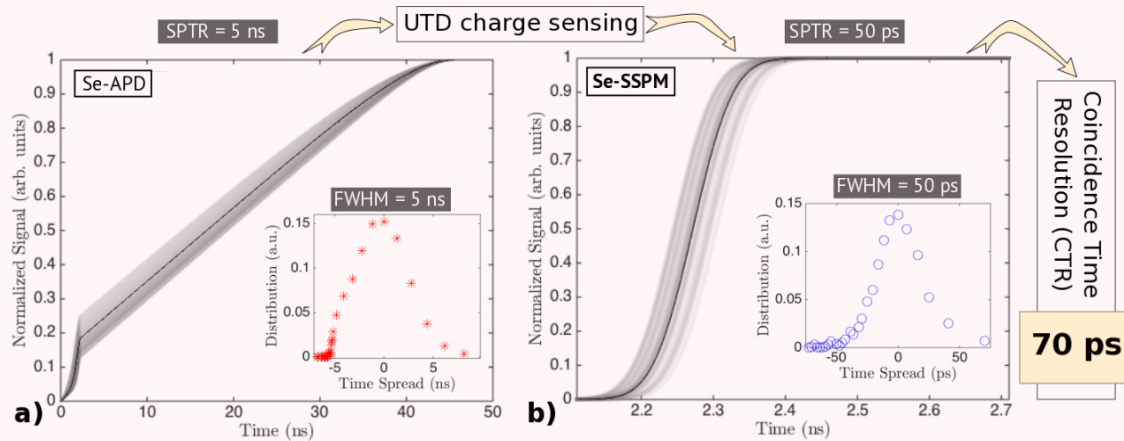
NEW-HARP: An Avalanche Amorphous Selenium Photodetector for TOF PET Imaging



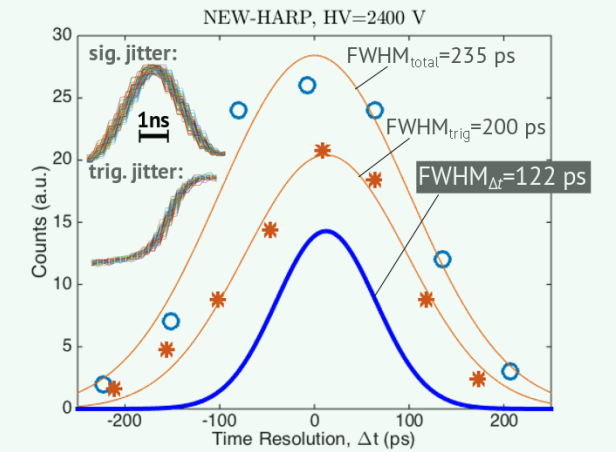
(a) Conventional planar a-Se detector. (b) Proposed NEW-HARP detector.



SPTR vs. PDE for Si and a-Se.



Simulation of signal gain over time for (a) conventional planar a-Se detector and (b) NEW-HARP.



Experimental results for NEW-HARP SPTR.