

Edge-On CZT and Amorphous Selenium Detectors for High-Resolution gamma-ray and X-ray Imaging

Friday, 16 January 2026 13:00 (30 minutes)

This talk will present recent advances in high-Z and wide-bandgap photoconductor detectors developed at the Radiological Instrumentation Laboratory, UC Santa Cruz. I will discuss: Edge-on cadmium zinc telluride (CZT) detector architectures enabling depth-of-interaction sensing, high energy resolution, and scalability for photon-counting CT, SPECT, and Compton imaging. Thick amorphous selenium (a-Se) and Se-Te-Ge alloy photoconductors designed for avalanche gain, low lag, and improved charge transport, offering new opportunities for high-resolution soft and hard X-ray detection.

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Session Classification: HiZPAD - Other High-Z sensor materials