Abstract Submitted
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Cargo Container Imaging with Gaseous Detectors[1] TONY FOREST, Idaho State University — The gas electron multiplier (GEM) , developed at CERN by Fabio Sauli, represents the latest innovation in micropattern gaseous detectors and has been utilized as a preamplification stage in applications ranging from fundamental physics experiments to medical imaging. Although cargo container inspection systems are currently in place using gamma-rays or X-rays, they are predominantly designed with a resolution to detect contraband. Current imaging systems also suffer from false alarms due to naturally radioactive cargo when radiation portal monitors are used for passive detection of nuclear materials. Detection of small shielded radioactive elements is even more problematic. Idaho State University has been developing a system to image cargo containers in order to detect small shielded radioactive cargo. The possible application of an imaging system with gas electron multiplication will be shown along with preliminary images using gaseous detectors instead of the scintillators currently in use.

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