Contents

SESSION 1  MEDICAL APPLICATIONS: PET/SPECT

10763 02  Dual-energy x-ray computed tomography scanner using a room-temperature cadmium-telluride detector and a range-region counter [10763-1]

10763 03  Ionizing radiation induces femtosecond time scale modulations of a material’s optical properties (Invited Paper) [10763-2]

10763 04  System integration for a SPECT system featuring digital waveform acquisition [10763-3]

10763 05  Parameters optimization of volumetric reconstruction technique for L-SPECT imaging [10763-4]

10763 06  Scintillator-specific optimization of 2-bit sigma-delta modulation A/D for gamma-ray pulse waveform capture [10763-5]

SESSION 2  SECURITY AND DEFENSE APPLICATIONS

10763 08  Application of International Radiological Information Exchange (IRIX) standards for radiation monitoring data reporting (Invited Paper) [10763-7]

10763 09  Harmonization of radiation monitoring and environmental sampling data in the aftermath of a nuclear or radiological emergency [10763-9]

10763 0A  New energy spectral measurements of a distributed x-ray source with a Compton spectrometer [10763-10]

SESSION 3  MEDICAL APPLICATIONS: RADIOGRAPHY/CT I

10763 0C  Demonstration of a high resolution x-ray detector for medical imaging [10763-11]

10763 0D  Bridgman-grown CsI:Tl crystals codoped to suppress afterglow for high-throughput cargo inspection (Invited Paper) [10763-12]

10763 0E  Digital image capture for high-resolution medical x-ray diagnostics [10763-13]
Session 4  Medical Applications: Radiography/CT II

10763 OF  Non-destructive examination of additive manufactured acetabular hip prosthesis cups (Invited Paper) [10763-14]

10763 OG  Unsupervised learning methods to perform material identification tasks on spectral computed tomography data (Invited Paper) [10763-15]

10763 OH  Triple-energy high-count-rate x-ray computed tomography scanner using a cooled cadmium-telluride detector [10763-16]

10763 OL  Dual-energy high-count-rate x-ray computed tomography using a cerium-doped yttrium-aluminum-perovskite crystal and a photomultiplier tube [10763-18]

Session 5  ICF Diagnostics: Fast X-Ray Imaging

10763 OL  Performance characterization of a four-frame nanosecond gated hybrid CMOS image sensor [10763-20]

10763 OM  Design and characterization of a novel 1-ns multi-frame imager for the Ultra-Fast X-ray Imager (UXI) program at Sandia National Laboratories [10763-21]

10763 ON  Design of radiation tolerant FPGAs for the LLNL nanosecond gated CMOS camera program [10763-22]

Session 6  ICF Diagnostics: Neutron, Gamma, and Other

10763 OP  Lens design challenges for scintillator-based neutron imaging (Invited Paper) [10763-24]

10763 OQ  Evolution of the neutron imaging aperture [10763-25]

10763 OS  Debris studies for high-repetition rate and high-power laser experiments at the Central Laser Facility [10763-27]

Session 7  ICF Diagnostics: Instrumentation

10763 OU  Coded aperture x-ray imaging of high power laser-plasma interactions on the Vulcan Laser System [10763-29]

10763 OV  Capacitor transient effects in a high-dose-rate environment [10763-32]
SEPAGE: a proton-ion-electron spectrometer for LMJ-PETAL [10763-33]