INMM SPECIAL TECHNICAL SESSION ANNOUNCEMENT

The INMM Materials Control and Accountability Technical Division is seeking papers for a special session on basic science, numerical methods, and other cross-cutting approaches for nuclear materials measurement methods. A description of this special session, its intended purpose, and proposed topics areas are listed below. Authors interested in presenting in this special session are encouraged to contact the session Co-Chairs, Dr. Stephen Croft or Dr. Andrea Favalli, to ensure their papers are properly identified for the INMM Technical Program Committee.

Title: Special Session on Basic Science, Numerical Methods, and other Cross-Cutting Approaches Applied to Nuclear Material Measurements
Technical Division: MC&A
Location: Baltimore USA
Date of Annual Meeting: July 22-26, 2018

Contact: Co-Chairs listed below
Co-Chair: Dr. Stephen Croft, ORNL, USA, crofts@ornl.gov, +1 (865)-241-2834
Co-chair : Dr. Andrea Favalli, LANL, USA, afavalli@lanl.gov, +1 (505)-667-1429

Description: This session is intended to be a broad technical track with 8-10 presentations. It is being proposed as a way to capture advances in less traditional measurement science techniques applied to the challenges of nuclear materials characterization and assay. We especially encourage papers on emerging and cross cutting concepts including those of a basic science and mathematical nature.

Background: Nuclear materials measurement methods for safety, security and safeguards rest squarely on basic science, measured nuclear data, modeling & simulation, and mathematical methods, such as applied statistics, which often do not find a natural home at the annual INMM meeting or are spread between various tracks so that the inquisitive attendee interested in the foundational aspects of the field inevitably misses a number of significant presentations of great interest.

Purpose: Emerging measurement techniques, the underlying mathematical methods, and developments in simulation tools will be featured with the hope that participants from a variety of specialisms, but whose work is not necessarily limited to the traditional neutron-gamma partition, will be able to share ideas. Our aim is that ideas being developed in one area will be spotted by workers who can adapt & adopt them in another - perhaps by forming a new & multidisciplinary collaboration.

Suitable topics include:

- Basic science questions relevant to nuclear materials measurement methods – new experimental and analytical techniques
- Alternative radiation sources for calibration or interrogation
- Detector materials science
- Limiting factors and difficult to measure scenarios which require attention
- Advanced statistical methods including application to MUF