2nd Advances in Nuclear Nonproliferation Technology and Policy Conference (ANTPC) 2018

Global Nuclear Security: Technical Leadership for the Modern World



September 23-27th, 2018 Hotel Ballast • Wilmington, NC

Co-sponsored by the Nuclear Nonproliferation Policy Division, the Fuel Cycle and Waste Management Division, and ANS Wilmington Local Section

Topics of Interest

Nuclear Material Control and Accountability

- Nondestructive and Destructive Assay Methods
- International Safeguards Verification Technology

Nonproliferation Policy: Present and Future

- Contemporary Practice of Nonproliferation Policy
- · Arms Control Technologies
- · Nuclear Security Culture
- Proliferation Resistance and Risk Assessment
- State-Level Concept
- Strategic Trade Agreements

Analysis and Modeling Methods in Nonproliferation

- Detection using Advanced Data Science Methods
- Statistical Methods in Nonproliferation
- Validation and Verification Methods
- · Sensitivity and Uncertainty Analysis
- · Application of Codes
- Enhancements to Nuclear Data

Nuclear Nonproliferation and the Fuel Cycle

- Safeguards and Security by Design
- Nuclear Energy Leadership and Strengthening Global Security
- · Safeguards for Advanced Fuel Cycles
- · Regulatory Needs for Entrant Nuclear States
- Regulatory Issues for Advanced Reactors and Fuel Cycles

Challenges in Monitoring the Nuclear Fuel Cycle

- Enrichment Verification
- Reactor Operations Verification
- Plutonium Production Verification
- Spent Nuclear Fuel Verification and Storage
- Thorium and Alternative Fuel Cycles
- · Weapons Useable Materials Minimization
- Security and Nonproliferation in Nuclear Fusion

Nuclear Facilities and Infrastructure

- · Security and Physical Protection
- Cybersecurity of the Plant and Digital Instrumentation
- · Cybersecurity of Data and Infrastructure
- Integrated Design of Facility Safeguards Systems
- Packaging and Transportation
- Licensing and Construction of Nuclear Facilities and Interfaces with Safeguards

Nonproliferation Education and Training

- Human Capital Development
- International Training and Education
- University and Academic Initiatives
- Social Media and Outreach

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Summary Submission Date extended to May 25th, 2018

Meeting Organizers and Chairs

General Chair: John Mattingly
Technical Program Co-Chair: Bob Borrelli
Technical Program Co-Chair: Margaret Harding
Technical Program Co-Chair: Rian Bahran

Asst. General Chair: Brandon Smith
Asst. Technical Program Chair: Steve Skutnik

Accommodations Chair: Kevin Cass Financial Chair: Josh Solorzano-Potash

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Asst. Sponsorship Chair: Andreas Enqvist Asst. Sponsorship Chair: Chris Robinson Asst. Sponsorship Chair: Megan LoMonaco

Student Chair: Alex Clark

Student Co-Chair: Raffi Yessayan

Student Program Coordinator: Bernadette Kirk

Web Chair: James Batuyios

Submission Logistics

Submission of Summaries: November 17, 2017–May 4, 2018 **Author Notification of Acceptance and Feedback:** June 8, 2018

Revised Summaries Due: June 29, 2018

Format

Authors are required to follow the "Guidelines for Transactions Summary Preparation" provided on the ANS website. Summaries must be submitted electronically in Adobe Acrobat (PDF) format via the ANS Electronic Paper Submission and Review System. Summaries not based on the ANS Template will be rejected.

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Please submit summaries describing work that is NEW, SIGNIFICANT, and RELEVANT to the nuclear industry. ANS will publish all accepted summaries in the Transactions. Papers are presented orally at the meeting, and presenters are expected to register for the meeting. Completed papers may be published elsewhere, but the summaries become the property of ANS. Under no circumstances should a summary or full paper be published in any other publication prior to presentation at the ANS meeting.

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