



NETS 2013



Nuclear and Emerging Technologies for Space

February 25-28, 2013 • Albuquerque Marriott, NM

CALL FOR PAPERS

Abstract Submissions Due: September 11, 2012

Author Notification: Sep. 14, 2012 • Draft Paper Due: Oct. 19, 2012 • Final Paper Due: Dec. 21, 2012

<http://anstd.ans.org/NETS2013.html>

Sponsored by the Aerospace Nuclear Science and Technology Division and the Trinity Section of the American Nuclear Society

About the Meeting

In February 2013 the Aerospace Nuclear Science and Technology Division (ANSTD) of the American Nuclear Society (ANS) will hold the 2013 Nuclear and Emerging Technologies for Space (NETS 2013) topical meeting in Albuquerque, NM. This conference represents the second stand-alone topical meeting in Albuquerque, NM since the previous Space Technologies and Applications International Forum (STAIF) and follows a successful meeting in 2012, which was held in conjunction with the 43rd Lunar Planetary Science Conference.

Topic Areas

NASA is currently developing capabilities for robotic and crewed missions to the Moon, Mars, and beyond. Strategies that implement advanced power and propulsion technologies, as well as radiation protection, will be important in accomplishing these missions in the future. NETS serves as a major communications network and forum for professionals and students working in the area of space nuclear technology. Every year it facilitates the exchange of information among research and management personnel from international government, industry, academia, and the national laboratory systems. To this end, the NETS 2013 meeting will address topics ranging from overviews of current programs to methods of meeting the challenges of future space endeavors.

Track 1: Current Space Architectures and Missions

- Space Science and Exploration Missions
- Industrial Programs
- Defense Architectures
- Spacecraft Concepts and Design
- Lunar and Planetary Surface Concepts
- Mission Analysis and Validation Missions
- Space Policy and Procedures

Track 2: Present Enabling Capabilities

- Plutonium-238 Production
- Radioisotope Power Systems
- Power Conversion Systems and Components
- Supporting Technologies
(inc. Heat Rejection and Power Management and Distribution)
- Space Radiation Environment and Protection
- Impact on Launch and Human Operations

Track 3: Near-Term Nuclear Technologies

- Reactor and Shield Design
- Reactor Simulation
- Fuels Development
- Materials and Radiation Testing
- Alternative Radioisotopic Systems and Applications
- Systems Integration
- Tools and Modeling
- Testing and Validation

Track 4: Augmenting Nuclear Capabilities

- Advanced Reactor and Nuclear Propulsion Technologies
- Advanced Fuels and Materials
- Hybrid Nuclear Systems
- Enhanced Computational Methods
- Improved Radioisotopic Power System Design
- Nuclear Enabled In-Situ Resource Utilization

Track 5: Innovative and Advanced Technologies

- Low Alpha Multi-Megawatt Power Systems
- Fusion Systems
- Non-Traditional Methods
- Novel Mission Design