

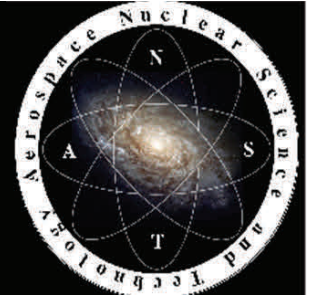
Nuclear And Emerging Technologies for Space (NETS-2014)

February 24-26, 2014

Infinity Science Center: A NASA Visitor Center

Sponsored by:

The ANS Aerospace Nuclear Science and Technology Division
and Universities Space Research Association (USRA)



CALL FOR PAPERS

Abstract Submissions Due: January 15, 2014

<http://anstd.ans.org/NETS2014>

About the Meeting:

In February 2014 the Aerospace Nuclear Science and Technology Division (ANSTD) of the American Nuclear Society (ANS) in conjunction with the Universities Space Research Association (USRA) will hold the 2014 Nuclear and Emerging Technologies for Space (NETS 2014) topical meeting. The topical meeting will be held at the Infinity Science Center, located near Stennis Space Center, Mississippi. NETS 2014 is the fifth NETS 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 2014 meeting will address topics ranging from overviews of current programs to methods of meeting the challenges of future space endeavors.

Submission Requests:

The requested submission for NETS 2014 is a 2 page extended abstract. These "extended abstracts" may include figures, tables, etc., but they should be limited to 2 pages in length on US letter size paper (8-1/2" x 11"). Please see the abstract template for the format and layout guidelines. Abstracts that do not hold to these guidelines will be returned to the author for reformatting.

Abstracts should be submitted to the desired track for initial review; specific session assignments will be identified following the abstract review.

Note: Please ensure submitted abstracts and associated presentations are approved for public release.

Track 1: Radioisotope Power Systems

- Plutonium-238 Production
- Thermal Systems Management
- Energy Conversion – Thermoelectric Systems and Components
- Energy Conversion – Stirling Systems and Components

Track 2: Nuclear Electric Propulsion and Power Production

- Reactor Module and Shield Design
- Power Conversion Systems and Components
- Supporting Technologies (inc. Heat Rejection and Power Management and Distribution)
- Reactor Simulation
- Tools and Modeling
- Testing and Validation
- Materials and Radiation Testing
- Nuclear Electric Propulsion Systems
- kWe-class Reactors
- Multi-Megawatt Power Systems

Track 3: Nuclear Thermal Propulsion

- NTP History
- Fuel Development
- Design Concepts
- System Integration
- Tools and Modeling
- Testing and Validation

Track 4: Advanced Concepts, Mission Characteristics, and Architectures

- Low Alpha Multi-Megawatt Power Systems
- Fusion and Hybrid Nuclear Processes
- Alternative or Advanced Radioisotopic Systems and Applications
- Space Radiation Environment and Protection
- Impact on Launch and Human Operations
- Nuclear-Enabled Space Science and Exploration Missions
- Flight Systems Mission Performance