CALL FOR PAPERS

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About the Meeting
Space Nuclear Conference 2007 (SNC '07) will be the second topical meeting organized by the Aerospace Nuclear Science and Technology (ANST) technical group. NASA funding has been established to develop capabilities for unmanned and manned missions to the Moon, Mars, and beyond. Strategies implementing nuclear based power and propulsion technology, as well as radiation shielding protection, will be an integral part of successful missions of these types.

The purpose of the meeting is to bring together and provide a communications network and forum for information exchange for the wide cross section of research and management personnel from government, industry, academia, and the national laboratory system that are involved in the initiative. To this end, the meeting will address topics ranging from overviews of current programs and plans to detailed issues related to space travel such as nuclear-based power and propulsion systems designs, materials, testing, safety, space environmental effects and nuclear power system radiation shielding for humans and electronic components, and human factor strategies for the safe and reliable operation of nuclear power and propulsion plants.

This conference will have full-length technical papers, which will be peer reviewed and published on a CDROM, available at the meeting. At least one author is required to attend the conference and present his or her paper.

Plenary Sessions
- Space Nuclear Power & Propulsion
- Radioisotope Power Sources
- Key Issues and Challenges
- Future Opportunities

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Abstracts due: December 1, 2006
Draft Papers Due: February 1, 2007
Final Papers Due: April 15, 2007

www.ans.org/goto/space07
email: space@ans.org
Topical Areas

1. Mission Design for Manned and Unmanned Space Exploration
2. Planetary (Moon, Mars) Surface Power Strategy and Design
4. Power Conversion Design and Integration and Spacecraft Power Strategies
5. Application of Nuclear Thermal Propulsion to Vision for Space Exploration Missions
6. Space Reactor Design and Analysis
7. Nuclear Fuels Development
10. Dynamics, Instrumentation & Control, and Systems Engineering
12. Radiation Shielding and Protection Including: Environment Definition, Transport Modeling and Simulation, Integration of Shielding Strategies with Power and Structure Designs, Dose and Risk Analysis
13. Component Testing and Validation Including: Validation of Behavior at Temperature and Over Lifetime
14. Ground Testing of Full-Scale Systems
15. In-Situ Resource Utilization for Surface Bases Including Power and Energy Requirements
16. Systems Modeling and Simulation
17. Human Interactions with Surface Power Systems Including: Deployment, Operations, and Maintenance
19. Public and Stakeholder Interests Related to the Space Nuclear Program
20. Space Nuclear Education

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