



ASTM INTERNATIONAL CONFERENCE ON ADVANCED MANUFACTURING

Research to Application through Standardization

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Submit an Abstract at www.amcoe.org/icam2023

AM for Space Applications

Spaceflight is a unique industry that utilizes additive manufacturing (AM) to its fullest potential, often resulting in geometrically complex and integrated designs that can only be fulfilled by AM. Structural integrity, new materials, novel designs, and advanced post-processing techniques are key enablers for AM; however, there is a need to revise current standards, qualifications, and certification practices before they can be fully Leveraged for AM parts used in spaceflight applications.

Topics of interest include but are not limited to:

- Certification strategies for Suppliers of AM Space Flight hardware
- In-situ inspection or automated process control
- Quality Assurance including testing for the cleanliness of AM Space Flight hardware
- Application of computational approaches to accelerate AM across the full lifecycle
- Material development, post-processing, and mechanical testing
- Novel design approaches for AM Space hardware
- Innovation for in-space manufacturing
- Cost factors and business case analysis for printed spaceflight hardware
- Sustainability, waste and environmental concerns in the production of AM parts for space exploration
- AM for extreme environment materials



Symposium Organizers

- Cory Cunningham, Boeing, USA
- Eliana Fu, Trumpf, USA
- Andrew Norman, European Space Agency, The Netherlands
- Rick Russell, Northrop Grumman, USA
- John Vickers, NASA, USA



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Research to Standards

ADDITIVE MANUFACTURING