



TFAWS 2012

Thermal & Fluids Analysis Workshop



Poster Session

Applications due June 4, 2012

Final submissions due July 23, 2012

Conference Details

The 23rd Thermal and Fluids Analysis Workshop, TFAWS 2012, sponsored by the NASA Engineering and Safety Center and hosted by the Jet Propulsion Laboratory, California Institute of Technology, will be held August 13-17, 2012 in Pasadena, California.

This year's conference theme is: *Promoting Excellence in all Aspects of Design, Analysis, Build, and Test.*

Information

In addition to a number of paper sessions and short courses, TFAWS 2012 will have a poster session on August 13, 2012 with the goal of providing a venue to display and exchange information, research, and programs in all areas of thermal and fluids. The following technical areas will be the primary focus of the conference:

Passive Thermal

- Passive thermal systems & control: design, analysis, build, and test for space and aeronautics
- Spacecraft thermal protection systems, ablative systems, plume impingement, ascent and entry aerothermal heating
- Radiative heat transfer, analytical and experimental approaches
- Studies related to MLI, coatings, thermophysical/optical properties, and surface finishes
- Ground test, manufacturing processes, and simulation
- Analytical model correlation to existing test or flight data

Active Thermal/Fluids/Life Support

- Fluids systems & CFD: design, analysis, build, and test for space and aeronautics
- Active thermal systems & control: mechanical pumped fluid loops, heat pipes, methods for achieving variable conductance, thermal/fluid systems components, analysis, and testing
- Life support: environmental control and life support systems
- Analytical model correlation to existing test or flight data

Aerothermal

- Aerothermodynamics: design, analysis, build, and test for space and aeronautics
- Aeroheating environments: ascent, on-orbit, re-entry
- Plume impingement, on-orbit contamination
- Free molecular heat transfer - analytical, and experimental approaches
- Analytical model correlation to existing test or flight data

Interdisciplinary

- Multi-disciplinary problems: design, analysis, build, and test for space and aeronautics
- Integrated analyses of chemical reactions, electromagnetic interactions, micromechanics, structural motion
- Technology innovations, current and in-development
- Creating environments of inclusion to enable innovation
- Lessons learned
- Various fluid management and modeling techniques as applied to propulsion
- Modeling or testing error approximation and verification/validation techniques

We are open to a broad range of topics related to thermal/fluid systems, so please contact us if you are unsure whether your topic applies to this conference or to determine which category your poster may fall under. Note that we prefer posters not be submitted for the purpose of advertising a software or hardware product or a company's features and capabilities. The intent is to present ongoing and accomplished work in support of a program or project.

Requirements

Submission of poster application	June 4, 2012
Notification of acceptance	June 11, 2012
Submission of final poster presentation	July 23, 2012

Application Submission Requirements

Poster applications must be a maximum of two pages in length (size 12 font minimum) and include:

- Author's name, phone number, email address, school/company affiliation (if any). Multiple authors are acceptable, but the primary contact for all communication should be clearly indicated
- Title
- Objective
- Description and results

Notification of Acceptance

Primary applicant will be contacted by email with further details on their acceptance to present a poster. Applicants must respond within 7 days to confirm their acceptance and ability to attend the poster session.

Final Poster Presentation Submission

Final posters should be submitted electronically in both the native file format as well as a PDF. The poster must contain the following at a minimum:

- Author's name, email address, school/company affiliation (if any)
- Title
- Objective
- Description and results

Display posters must be furnished by the presenter and be printed or affixed to a hard backing (foamcore, etc.) and be 30" by 40". Easels will be available to display posters.

Poster Presentation and Attendance

The TFAWS poster session will be held on the evening of August 13, 2012. Attendance to the entire conference is free and encouraged. The majority of the attendees will be from the aerospace industry including all of the NASA centers, industrial partners, thermal/fluids software and hardware vendors. The poster presentation will provide a great opportunity to share your work and network with aerospace industry personnel. Posters will be judged by a panel to award excellence.

Clearance/Copyright

Submitted work must be unclassified and approved for public release by the appropriate company, university and/or government agencies. Please allot time for this authorization process. Government employees are expected to complete Document Availability Authorization (DAA) paperwork. The submission must be original work from the author without any portion of the material infringing on any copyright.

Presenters will be required to fill out a "Presentation Clearance & Permission to Publish" form prior to their presentation. The form may be completed prior to TFAWS or upon arrival.

Contact and Submission Information

All submissions should go to the Poster Session Chair as well as any questions related to the poster session.

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