



## Call for Papers

### Thermal & Fluids Analysis Workshop (TFAWS) 2014

You are invited to submit papers for the Thermal & Fluids Analysis Workshop 2014 (TFAWS '14). This year's workshop will be hosted by the NASA Glenn Research Center in Cleveland, OH on August 4-8, 2014. The agenda will include short courses of general interest in thermal and fluids, discussions on special topics, hands-on training sessions in many thermal and fluid software packages, vendor demonstrations and paper sessions on the topics that cover **Active Thermal/Fluids**, **Passive Thermal**, **Aerothermal**, and **Interdisciplinary**. One ITAR restricted session will be offered.

#### Active Thermal/Fluids

- Fluids and CFD: analysis, design and test for space and aeronautics
- Active thermal systems and control: components, thermal systems, analysis and testing
- Life support: environmental control and life support systems
- Analytical model correlation to existing test or flight data
- Cryogenic Fluid Systems

#### Passive Thermal

- Passive thermal systems & control: design, analysis, build, and test for space and aeronautics
- Spacecraft thermal protection system, 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
- Plume impingement effects on ground support elements
- 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
- Vibration and acoustics in the launch environment
- Modeling or testing error approximation and verification/validation techniques

The abstract submission deadline is **now extended to June 27, 2014** and final manuscript submissions are due **July 25, 2014**. Submissions should be sent to Lauren Storrow at [lauren.a.storrow@nasa.gov](mailto:lauren.a.storrow@nasa.gov) (216-433-5565). Typically, twenty minutes will be allotted for each paper, and ten additional minutes for questions from the audience. Additional time may be requested. Instructions for electronic manuscript submission will accompany acceptance of abstract. It is the author's responsibility to ensure that presentation content is not restricted by law, contract or prohibited in any way from being presented at this conference.