



# ASTFE

American Society of Thermal and Fluids Engineers

## 9<sup>TH</sup> THERMAL AND FLUIDS ENGINEERING CONFERENCE (Hybrid)

Partially online virtual and in person  
at Oregon State University, Corvallis, OR, USA

21-24  
APRIL  
2024

[www.astfe.org/tfec2024/](http://www.astfe.org/tfec2024/)

The 2024 American Society of Thermal and Fluids Engineers (ASTFE) Conference (Hybrid) will be held in April 21-24, 2024 partially online virtual and in person at Oregon State University, Corvallis, OR, USA. ASTFE is the premier international society by and for professionals within the thermal and fluids science and engineering community. The 2024 ASTFE conference, TFC 2024 provides an international forum for the dissemination of the latest research and knowledge in the thermal and fluid sciences. Authors are invited to submit abstracts covering, but not limited to, the following areas:

- Advanced Energy Systems
- Aerospace Applications
- Atomization
- Combustion, Fire and Fuels
- Computational Methods/Tools in Thermal-Fluid Systems
- Cryogenics
- Electric, Magnetic, Flow and Thermal Phenomena in Micro and Nano-Scale Systems
- Electronics Cooling
- Energy and Sustainability
- Energy Storage Systems
- Energy-Water-Food Nexus
- Engineering Equipment and Environmental Systems
- Engineering Fundamentals and Methodology
- Experimental Methods/Tools and Instrumentation in Fluid Mechanics and Heat/Mass Transfer
- Flow and Heat Transfer in Biological Systems
- Flow and Heat Transfer in Materials Processing Science and Manufacturing
- Flow in Internal Multiphase Flows
- Flow Instability
- Fluid Flow and Heat Transfer in Industrial and Commercial Processes
- Fluid Flow and Heat Transfer Multiphase Phenomena
- Fluid Measurements and Instrumentation
- Fluid Mechanics and Rheology of Nonlinear Materials and Complex Fluids
- Fuel Cells
- Fundamentals in Fluid Flow and Heat/Mass and Momentum Transfer
- Heat Exchangers: Compact, Novel, Networks
- Heat Pipes
- Heat Pumps
- Heat/Mass Transfer Enhancement Techniques
- Industry Problems: CO<sub>2</sub> Capture
- Machine Learning and AI
- Material Issues, Ceramics, Low Thermal Conductivity
- Measurement and Modeling of Environmental Flows
- Multiphase Flows
- Nano and Micro Fluids Applications
- Natural and Built Environments
- Nuclear Energy and Systems
- Ocean and Climate Science
- Plasma Physics and Engineering
- Refrigeration, Air Conditioning Systems, and Refrigerants
- Solar Energy Equipment and Processes
- Thermo-economic Analysis of Energy Systems
- Thermo-Fluid Education
- Transportation
- Turbulent Flows
- Wind Turbines Aerodynamics and Control

Authors will have options to present their research work as presentation only, extended abstract (maximum of 4 pages), or full-length paper (5-10 pages). The conference proceedings will contain both peer-reviewed extended abstracts and papers, and will be distributed in a digital form, the ASTFE Digital Library. Authors will also have the option to submit their full conference papers to a technical journal of their choice after the conference. The full conference papers should have significant changes made before submitting to any journals. The same full conference papers cannot be submitted to any journal publications. Authors may share their original manuscripts with the public but must include a citation and a link to the published paper (conference paper or journal paper).

**SUBMIT YOUR PAPER ABSTRACT BY SEPTEMBER 17, 2023 TO: <http://submission.astfe.org>**

Please check <http://astfe.org/tfec2024/> regularly for conference updates or contact any member of the organizing committee for further inquiries.

### DEADLINES

**September 17, 2023**

Abstract Due

**September 27, 2023**

Notification of Abstract Accept / Decline

**October 20, 2023**

Draft Paper / Extended Abstract Due

**November 17, 2023**

Draft Paper / Extended Abstract Reviews Completed

**December 8, 2023**

Authors Notified of Paper / Abstract Status

**January 12, 2024**

Revised Manuscript Due

**January 21, 2024**

Presentations Only Abstracts Deadline /

Final Paper / Extended Abstract Due

### ORGANIZING COMMITTEE

**Conference Chair:**

**Dr. Jayathi Y. Murthy**, Oregon State University

**Conference Co-Chair:**

**David L. Blunck**, Oregon State University

**Conference Co-Chair:**

**Nesrin Ozalp**, Purdue University Northwest

**Technical Program Chair:**

**Hamidreza Najafi**, Florida Institute of Technology

**Technical Program Co-Chair:**

**Patrick Mensah**, Southern University and A&M College

**Technical Program Co-Chair:**

**Kevin R. Anderson**, Calif State Polytechnic Univ, Pomona



# ASTFE

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[www.astfe.org](http://www.astfe.org)

## About ASTFE

The American Society of Thermal and Fluids Engineers (**ASTFE**) was established in July 2014 to promote the science and applications of thermal and fluids engineering and related disciplines.

**ASTFE** aims at providing opportunities to promote the dissemination of information and knowledge regarding thermal and fluids engineering, both nationally and internationally. It aligns itself with globally collaborative activities in the traditional areas of heat transfer and fluids engineering, as well as, in emerging areas such as those related to energy, environmental sustainability, manufacturing, thermal management, and micro- and nano-scale transport phenomena.

**ASTFE** encourages the personal and professional development of young scientists and engineers, and promotes cooperation with other engineering and technical societies to enhance interactions with industry, government agencies and the public at large. Of particular interest to the Society is the organization of conferences and workshops that bring together diverse groups in these fields.

American Society of Thermal and Fluids Engineers (**ASTFE**) is the U.S. nonprofit organization based in New York operating on web 2.0 IT platform to arrange professional communications, support conferences and professional communities. The organization is supported by individual contributors, private foundations and other governmental bodies. All contributions and donations are tax deductible. **ASTFE** supports Open Access movement.

## News

### “Executive Committee” formed by ASTFE

April 2022 — The American Society of Thermal and Fluids Engineers (**ASTFE**) has formed an Executive Committee (EC) to assist in leading the Society forward. Reporting to the **ASTFE** Board of Directors, the EC serves in a significant leadership role and aims to develop innovative approaches to advance thermal and fluid scientist and engineer engagement within the **ASTFE** community. The EC will work with **ASTFE** members to appoint conference organization committees, technical committees, and working groups. EC members will also collaborate with other societies on conferences and workshops and focus on enhancing **ASTFE** membership outreach and communication.

The inaugural members of the EC were nominated by the **ASTFE** Board of Directors and include **Prof. Wilson Chiu** (University of Connecticut), **Prof. Lorenzo Cremaschi** (Auburn University, EC-chair), **Prof. Jon Longtin** (Stony Brook University), **Prof. Nesrin Ozalp** (Purdue University Northwest) and **Prof. Ting Wang** (University of New Orleans).

If you are interested in having more information, or if you would like to get involved with **ASTFE** activities, please contact **Dr. Lorenzo Cremaschi** (email: [lorenzo.cremaschi@auburn.edu](mailto:lorenzo.cremaschi@auburn.edu)).