

Special Issue

Experimental and Computational Approaches for Fluid Mechanics and Heat Transfer

Message from the Guest Editors

This Special Issue invites original research articles and comprehensive reviews focused on fluid mechanics and heat transfer, employing experimental, computational, or hybrid approaches. Submissions exploring novel numerical techniques such as computational fluid dynamics (CFD), multiphysics simulations, and machine learning-enhanced modelling are particularly encouraged. Experimental investigations involving laboratory-scale validation, uncertainty quantification, and optimisation of thermal-fluid systems are also of high interest. Topics of interest include, but are not limited to, the following:

- Laminar and turbulent flow dynamics;
- Forced and natural convection;
- Conduction and radiation heat transfer;
- Multiphase and reactive flows;
- Heat transfer enhancement techniques;
- Phase-change and thermal energy storage systems;
- Flow and heat transfer in complex geometries;
- Micro- and nanoscale thermal-fluid transport;
- Data-driven modelling and optimisation;
- Validation and benchmarking of numerical models.

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Deadline for manuscript submissions

closed (13 February 2026)



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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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