

## Special Issue

# Advances in Heat Transfer Analysis Through Computational Fluid Dynamics

### Message from the Guest Editor

This Special Issue aims to highlight recent advancements in heat transfer analysis through Computational Fluid Dynamics (CFD), focusing on the growing demand for high-performance thermal systems and the role of CFD in designing, optimising, and understanding complex thermal processes. We welcome original research and review articles on innovative CFD strategies for multi-scale and multi-physics heat transfer challenges, including microfluidics, AI/ML modelling, efficient numerical schemes, and reduced-order models. Contributions on non-equilibrium conditions (e.g., rarefied gas flows, vacuum, transient transport) and advanced manufacturing technologies like additive manufacturing and laser-based processing are also encouraged. This Issue bridges fundamental theory with practical CFD implementation across aerospace, electronics, energy, biomedical, and materials processing.

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### Guest Editor

Dr. Amin Ebrahimi

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### Deadline for manuscript submissions

closed (20 December 2025)



## Applied Sciences

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### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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