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.

Guest Editor

Dr. Amin Ebrahimi

1. Netherlands Organisation for Applied Scientific Research (TNO), High Tech Campus 25, 5656 AE Eindhoven, The Netherlands
2. Faculty of Mechanical Engineering, Delft University of Technology, Mekelweg 2, 2628 CD Delft, The Netherlands

Deadline for manuscript submissions

20 December 2025

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/235703

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

mdpi.com/journal/applsci

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/journal/applsci

MDPI

About the Journal

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.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)