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# Fluid Flow and Heat Transfer, Symmetry and Asymmetry

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### Message from the Guest Editors

Heat transfer and fluid flow are phenomena that are abundantly seen in nature and in various industrial applications. Further research in this field will help us better understand the symmetric/asymmetric nature of laminar/turbulent fluid flow regimes, as well as different mechanisms of heat transfer, including conduction, convection, and radiation.

This Special Issue aims to present the latest numerical, analytical, and experimental studies in the fields of fluid flow and heat transfer. Topics of interest include, but are not limited to:

- Symmetry/asymmetry in laminar fluid flow;
- Symmetry/asymmetry in turbulent fluid flow;
- Conductive heat transfer;
- Convective heat transfer;
- Radiative heat transfer;
- Nanofluid;
- Non-Newtonian fluid;
- Porous media;
- Heat exchanger;
- Heat transfer enhancement;
- Computational fluid dynamics (CFD);
- Fluid-solid interactions (FSI);
- Lattice-Boltzmann method (LBM);
- Immersed boundary methods (IBM).





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### **Editor-in-Chief**

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#### Message from the Editor-in-Chief

Symmetry is ultimately the most important concept in natural sciences. It is not surprising then that very basic and fundamental research achievements are related to symmetry. For instance, the Nobel Prize in Physics 1979 (Glashow, Salam, Weinberg) was received for a unified symmetry description of electromagnetic and weak interactions, while the Nobel Prize in Physics 2008 (Nambu, Kobayashi, Maskawa) was received for the discovery of the mechanism of spontaneous breaking of symmetry, including CP symmetry. Our journal is named *Symmetry* and it manifests its fundamental role in nature.

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