

# Special Issue

## Aero/Hydrodynamics and Symmetry

### Message from the Guest Editor

The scope of this Special Issue contains, but is not limited to, the state-of-the-art computational, theoretical, and experimental works dealing with symmetry and its breaking, which are in line with the aero-/hydro-dynamics applications. Potential topics dealing with the following subheadings are deemed suitable for publication, but are not limited to

- Mathematical models such as the symmetry method, homotopy perturbation method, homotopy analysis method, Lie group, integral transform, and so on;
- Equilibrium and out of equilibrium thermodynamics and fluid mechanics
- Hydrodynamics for symmetric exclusion;
- Hydrodynamics with multiple higher-form symmetries;
- Ideal order and dissipative fluids with q-form symmetry;
- Partial and fractional order differential equations;
- Finite difference, finite volume, finite element, smoothed particle hydrodynamics, moving particle semi-implicit, lattice Boltzmann methods, and so on;
- multiphysics phenomena, such as non-Newtonian flows, multiphase flows, phase change, nanofluidic, magnetohydrodynamics, electrohydrodynamics, and so on;
- Symmetry and its breakdown in transitional and turbulent flows.

---

### Guest Editor

Dr. Mostafa Safdari Shadloo

CORIA Lab., INSA Rouen/ CNRS (UMR 6614), Rouen, France

---

### Deadline for manuscript submissions

closed (31 January 2020)



## Symmetry

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 5.4



[mdpi.com/si/25372](https://mdpi.com/si/25372)

*Symmetry*

MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[symmetry@mdpi.com](mailto:symmetry@mdpi.com)

[mdpi.com/journal/  
symmetry](https://mdpi.com/journal/symmetry)





# Symmetry

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.2  
CiteScore 5.4



[mdpi.com/journal/  
symmetry](https://mdpi.com/journal/symmetry)



## About the Journal

### 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.

---

### Editor-in-Chief

Prof. Dr. Sergei Odintsov  
ICREA, 08010 Barcelona and Institute of Space Sciences (IEEC-CSIC),  
C. Can Magrans s/n, 08193 Barcelona, Spain

---

### Author Benefits

#### Open Access:

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

#### High Visibility:

indexed within SCIE (Web of Science), Scopus, CAPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

#### Journal Rank:

JCR - Q2 (Multidisciplinary Sciences) / CiteScore - Q1  
(General Mathematics)