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# **Symmetry and Fluid Mechanics**

Guest Editor:

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### Message from the Guest Editor

This Special Issue invites you to contribute your original research work and review articles on "Symmetry and Fluid Mechanics" that either advances the state-of-the-art of mathematical methods, theoretical, or experimental studies, or extends the bounds of existing methodologies to new contributions related to the symmetry, asymmetry, and lie symmetries of differential equations proposed as mathematical models in fluid mechanics to address current challenges. We hope that this Issue will provide an overall picture and up-to-date findings to readers of the scientific community that ultimately benefit the industrial sector regarding its specific market niches and end users. Potential topics dealing with the following subheadings are deemed suitable for publication but are not limited to

- The symmetry method, the lie group, homotopy perturbation, homotopy analysis, perturbative series, differential transform, integral transform, numerical simulations and approximate, finite element, volume and difference methods, and other new technologies;
- Newtonian and non-Newtonian fluids;
- Nanofluids and particle shape effects;
- Convective heat and mass transfer...









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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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