



symmetry

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Applied Mathematics and Fluid Dynamics

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Prosviryakov**

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submissions:

closed (31 January 2022)

Message from the Guest Editors

This Special Issue will include high-quality peer-reviewed papers on applied mathematics and fluid dynamics with a focus on numerical and analytical studies of fluid flows or on pure theoretical research in the field of theoretical hydrodynamics, with an emphasis on symmetry concepts stemming from group analysis or topological forms of the solutions. In this Special Issue, you can publish scientific articles on exact and approximate solutions of the Navier–Stokes equations, Euler equations, vortex hydrodynamics, tidal phenomena, computational fluid dynamics, convection, diffusion, thermal diffusion, MHD phenomena, physicochemical hydrodynamics, and plasma physics. The authors are given the opportunity to publish research on the solution of new model boundary value problems for geophysical hydrodynamics or applying the ansatz of boundary layer theory, on fluid–body interactions and rigid body dynamics in a fluid, along with solving engineering problems in fluid mechanics, regarding glacier dynamics and the nonlinear hydrodynamics of Newtonian or non-Newtonian fluids and so on.



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Special Issue



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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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