

# Special Issue

## Foundations of Continuum Mechanics and Mathematical Physics

### Message from the Guest Editors

The main topics of this Special Issue are:

- **Foundations of Continuum Mechanics:** As is well known, the basic equations of continuum mechanics are obtained by imposing suitable invariance properties on Lagrangian functionals under suitable symmetry groups. Invariance under the Galilean symmetry group is involved in the equations of classical continuum mechanics, while invariance in the Lorentz group is involved in relativity;
- **Functional analysis:** Analytical theory of linear differential equations; regular and irregular singularities;
- **Mathematical Physics and PDE:** Asymptotics of ODEs and PDEs; mathematical physics and PDE including fluid dynamics, Helmholtz equation; solvability, regularity, stability, and other qualitative properties of linear and nonlinear equations and systems; scattering theory, inverse problems; variational methods and calculus of variations;
- **Foundation in Electromagnetic fields:** wave propagating and media with defects.

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### Guest Editors

Prof. Dr. Francesco dell'Isola

Prof. Maria Korovina

Prof. Dr. Hovik Matevosyan

Prof. Dr. Nikolai E. Smirnov

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### Deadline for manuscript submissions

closed (1 July 2023)



## Symmetry

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## 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.

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### Editor-in-Chief

Prof. Dr. Sergei Odintsov

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