



an Open Access Journal by MDPI

# Symmetry in Geometrical Physics

Guest Editor:

#### Prof. Dr. Rami Ahmad El-Nabulsi

1. Athens Institute for Education and Research, Mathematics and Physics Divisions, 10671 Athens, Greece

2. Research Center for Quantum Technology, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand 3. Department of Physics and Materials Science, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand

Deadline for manuscript submissions: closed (31 December 2019)

## Message from the Guest Editor

Dear Colleagues,

In recent years, rapid developments have taken place in nonlocal-in-time theories characterized by the occurrence of higher-order derivatives. Time non-locality arises in a large number of physical phenomena including classical mechanics, dissipative dynamics, the self-diffusion process, geometrical physics, discrete quantum mechanics, quantum field theory, and the theory of parabolic and hyperbolic differential equations, among others. Nevertheless, after a large number of theoretical studies, it was observed that higher-order derivatives hold a number of generic outcomes, and they constitute an indispensable mathematical tool nowadays in theoretical physics and sciences, e.g., in Abraham-Lorentz electrodynamics theory, which describes the equation of motion for charged particles taking into account radiative effects



mdpi.com/si/21373







an Open Access Journal by MDPI

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

#### Prof. Dr. Sergei D. Odintsov

 Institució Catalana de Recerca i Estudis Avançats (ICREA), Passeig Luis Companys, 23, 08010 Barcelona, Spain
Institute of Space Sciences (ICE-CSIC), C. Can Magrans s/n, 08193 Barcelona, Spain

### 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.

## **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 )

## **Contact Us**

*Symmetry* Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/symmetry symmetry@mdpi.com X@Symmetry\_MDPI