# Special Issue

# Beyond the Standard Cosmological Model in the Multi-messenger Era

## Message from the Guest Editor

The main purpose of this Special Issue is to sketch alternative treatments to the \( \mathbb{CDM} \) model, dusting off \( \mathbb{M} \) as interchangeable with other possibilities. To this end, the guidelines to follow are wide, spanning from phenomenological dark energy reconstructions, passing through barotropic fluids as alternative frameworks, to higher-dimensional theories of gravity. We thus embrace scenarios involving different epochs of universe's evolution: at early times, concerning the effects of quantum cosmology and quantum field theories, in intermediate epochs, dealing with galaxy formation and dark matter models, up to the late-time era, in which dark energy is the most prominent ingredient within the cosmic puzzle. Therefore, manuscripts based on a vast number of topics, such as dark energy, dark matter, small perturbations, early time cosmology, quantum gravity, extended theories of gravity, etc., are warmly welcome.

### **Guest Editor**

Dr. Orlando Luongo

Department of Physics, University of Camerino, 62032 Camerino, Italy

### Deadline for manuscript submissions

closed (30 November 2020)



# **Symmetry**

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 5.3



mdpi.com/si/18858

Symmetry
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
symmetry@mdpi.com

mdpi.com/journal/ symmetry





# **Symmetry**

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 5.3



## **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

- 1. ICREA, 08010 Barcelona, Spain
- 2. 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)

