

# 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  $\Lambda$ CDM model, dusting off  $\Lambda$  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.

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### Guest Editor

Dr. Orlando Luongo

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### Deadline for manuscript submissions

closed (30 November 2020)



# 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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