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String Field Theory and Nonlocal Gravity

Guest Editor:

Dr. Sergey Vernov

Skobeltsyn Institute of Nuclear Physics, Lomonosov Moscow State University, Leninskie Gory 1, 119991 Moscow, Russia

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Message from the Guest Editor

Dear Colleagues,

One of the main paradigms of modern theoretical physics is the belief that the string theory unifies all known forces and governs the fundamental law of Natures. From this point of view questions in cosmology, related to fundamental physics should be addressed within the string scenario framework. The appearance of nonlocality within the string field theory framework is a good motivation for studying nonlocal cosmological models.

Modified gravity models have been proposed with the hope to find resolutions to the important open problems of General Relativity. One of these problems is the construction of quantum gravity. The role of higher derivatives and nonlocality in the quantization of gravity is actively discussed.

Local modified gravity models that are compatible with the observation data describe the different stages of the Universe evolution from inflation to the late-time accelerating expansion. Nonlocal generalizations of such models are actively investigated.









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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

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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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