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Global and Local Scale Symmetry in Gravitation and Cosmology

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

In our Special Issue on “Global and Local Scale Symmetry in Gravitation and Cosmology” we will review formulations and applications of scale invariance (or “Weyl” invariance) in both its global and local forms, and these will be considered in relation to gravitational theories and their cosmological consequences. Among the subjects of interest are the relation of global scale invariance and the appearance of flat potentials, useful in the inflationary phase of the early universe and the late time accelerated expansion of the universe; the importance of scale invariance for the elimination of the 5-th force problem in scalar field-driven late universe scenarios; the relevance of scale invariance in inflation; and the use of local scale invariance to address important questions in gravitation.

Prof. Eduardo Guendelman

Guest Editor



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Special Issue



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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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