



## New Trends on the Mathematical Models and Solitons Arising in Real-World Problems, 2nd Edition

Guest Editor:

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### Message from the Guest Editor

Dear Colleagues,

The essence of mathematical tools for exemplifying the practical problems that exist in daily life is as old as the world itself. Mathematical models in science and technology have recently attracted an increased amount of research attention with the aim of understanding, describing, and predicting the future behavior of natural phenomena. Recent studies on fractional calculus have been particularly popular among researchers due to their favorable properties when analyzing real-world models associated with properties such as anomalous diffusion, non-Markovian processes, random walk, long range, and, most importantly, heterogeneous behaviors. The concept of local differential operators, along with power-law settings and non-local differential operators, was suggested in order to accurately replicate the above-cited natural processes. The complexities of nature have led mathematicians and physicists to derive the most sophisticated and scientific mathematical operators to accurately replicate and capture pragmatic realities...





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## Editor-in-Chief

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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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