# Special Issue

# Symmetry in Splitting Methods for Partial and Stochastics Differential Equations: Theory and Applications

## Message from the Guest Editor

Splitting methods have been applied to partial and stochastic differential equations for many years and provide the advantage of decomposing differential equations into simpler solvable sub-differential equations. Optimization and acceleration of such splitting methods can be achieved by applying symmetries in the underlying splitting ideas, e.g., by decomposing into symmetrical sub-equation parts (symmetrical splitting or Strang-splitting methods), symmetrical upper and lower diagonal matrix-operators (Waveform relaxation methods), and operators with symmetries in the multidimensional space matrices (ADI, LOD, and dimension splitting). Prof. Juergen Geiser

## Guest Editor

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## Deadline for manuscript submissions

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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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