



## Numerical Analysis or Numerical Method in Symmetry

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Deadline for manuscript  
submissions:

**closed (31 May 2019)**

### Message from the Guest Editor

Dear Colleagues,

Numerical methods and, in particular, numerical analysis represent an important field of investigation in modern mathematical research. In recent years, numerical analysis has undertaken a various lines of application in different areas of applied mathematics and, moreover, in applied sciences, such as biology, physics, engineering, and so on. However, part of the research on the topic of numerical analysis cannot exclude the fundamental role played by approximation theory and some of the tools used to develop this research. In this Special Issue, we want to draw attention to mathematical methods used in numerical analysis, such as special functions, orthogonal polynomials and their theoretical instruments, such as Lie algebra, to investigate the concepts and properties of some special and advanced methods that are useful in the description of solutions of linear and non-linear differential equations. A further field of investigation is devoted to the theory and related properties of fractional calculus with its suitable application to numerical methods.





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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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