

## Special Issue

# Symmetry and Complexity 2019

### Message from the Guest Editor

Symmetry and complexity are two fundamental features of almost all phenomena in nature and science. Any complex physical model is characterized by the existence of some symmetry groups at different scales. On the other hand, breaking the symmetry of a scientific model has always been considered as the most challenging direction for new discoveries. Modelling complexity has recently become an increasingly popular subject, with an impressive growth in applications. The main goal of modelling complexity is to search for hidden or broken symmetries. Usually, complexity is modelled by dealing with Big Data or dynamical systems, depending on a large number of parameters. Nonlinear dynamical systems and chaotic dynamical systems are also used for modelling complexity. Complex models are often represented by un-smooth objects, non-differentiable objects, fractals, pseudo-random phenomena, and stochastic process...

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### Guest Editor

Prof. Dr. Carlo Cattani

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### Deadline for manuscript submissions

closed (31 October 2019)



## Symmetry

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## About the Journal

### 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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### Editor-in-Chief

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