Special Issue

Symmetry in Nonlinear Partial Differential Equations and Rogue Waves

Message from the Guest Editor

Study of rogue waves has assisted many people not only to better understand natural phenomena but also to progress in the knowledge of nonlinear waves in general. The nonlinear Schrödinger (NLS) equation and its exact analytical solutions have been used as a mathematical model and for prototypes of rogue waves, also known as freak or extreme waves. Although the family of solitons on nonvanishing backgrounds was discovered in the 1970s and 1980s, it was not until the 2010s that experimental observations confirmed those theoretical predictions. In this Special Issue of *Symmetry*, we seek contributions from researchers on the topic of Symmetry in Rogue Waves. All types of contribution are welcome, including modeling, mathematical, physical, numerical, statistical, and experimental.

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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.

Editor-in-Chief

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