Special Issue

Geometry and Nonlinear Computations in Physics

Message from the Guest Editor

Nonlinearity is a very interesting concept in mathematical physics. Over the years, this phenomenon has attracted significant attention from many disciplines, including mathematics, physics, and engineering. This is because most real, physical systems are inherently nonliner in nature. Space–time dynamics are usually modeled in terms of partial differential equations, which are often nonlinear. There are many advanced tools and techniques to study nonlinear PDEs that appear in physical and engineering sciences, some of which include the inverse scattering transform for Cauchy problems, symmetry methods, the Hamiltonian framework, and the Hirota bilinear method. There are also many geometric and numerical methods. Nevertheless, solving nonlinear partial differential equations poses substantial challenges. The aim of this Special Issue is to highlight the important role played by geometric and computational techniques in solving and analyzing nonlinear systems arising in physics. Submissions of original research and review articles from diverse areas are welcomed.

Guest Editor

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Message from the Editor-in-Chief

Axioms is dedicated to the foundations (structure and axiomatic basis, in particular) of mathematical theories, not only from a crisp or strictly classical sense, but also from a fuzzy and generalized sense. This includes the more innovative current scientific trends, devoted to discover and solve new challenging problems. The prime goal of *Axioms* is to publish first-class, original research articles under an open access policy with minimal fees for the authors. We would be pleased to welcome you as one of our authors.

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