Special Issue

Symmetry and Integrable System

Message from the Guest Editor

Soliton theory and integrable systems are important aspects of mathematical physics. Subtopics include soliton solutions, symmetry analysis, Darboux transformation, Hamiltonian structure, and so on. Darboux transformation of integrable equations is an important tool for searching for soliton solutions through spectral problems or Lax pairs. Symmetry obtained by the Lie group of transformations is important in the unusual properties of ordinary differential equations and partial differential equations, which has extensive applications in physics science. The purpose of this issue is to demonstrate soliton solutions, Darboux transformations, symmetry of differential equations and Hamiltonian structure, and so on.

Guest Editor

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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.

Editor-in-Chief

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