

Special Issue On

Solvability and Integrability of Nonlinear Evolution Equations

Call for Papers

The mathematical physics has been taking new dimensions with the rapid development of nonlinear sciences. The through study of the literature witnesses the introduction of number of new techniques which are being used to cope with the versatility of diversified physical problems. The nonlinear evolution equations play a pivotal role in mathematical physics and in the similar context, number of numerical and analytical techniques have been developed to cope with the physical nature of such equations. The basic purpose of this special issue is to extend the applications of the relatively new approaches and theories on solvability and integrability for nonlinear evolution equations arising in mathematics and physics, and would see the latest developments in the similar context.

The main focus of this special issue will be on theories of solvability and integrability of nonlinear evolution equations and their applications to science and engineering. We invite authors to submit original research articles as well as commentary and review articles that will stimulate the continuing efforts in nonlinear evolution equations and related theories. The special issue will provide a forum for researches and scientists to communicate their recent developments, and to present their novel results on nonlinear evolution equations and related problems. The topics to be considered for this issue would include (but are not limited to):

- Stability theory of solitary waves
- Homotopy method
- Symmetries and separation of variables
- Hirota bilinear method
- Painlevé test and analysis
- Hamilton-Jacobi approach
- Bäcklund transformations

- Variation of parameters method
- Continuous and discrete integrable equations
- Interactions and collisions of solitary waves
- Numerical approaches to nonlinear waves
- Wave phenomena in science and engineering

Before submission authors should carefully read over the journal's Author Guide lines. Prospective authors should submit an electronic copy of their complete manuscript through the online submission system according to the following timetable:

Manuscript Due	December 15, 2010
First Round of Reviews	February 15, 2010
Publication Date	April 15, 2010

Guest Editors

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