

Editorial

Recent Advances on Methods and Applications of Nonlinear Differential Equations

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Nonlinear differential equations have been extensively used to mathematically model many of the interesting and important phenomena that are observed in many areas of science and technology. They are inspired by problems which arise in diverse fields such as economics, biology, fluid dynamics, physics, differential geometry, engineering, control theory, materials science, and quantum mechanics.

The purpose of this special issue is to highlight some recent developments in methods and applications of nonlinear differential equations. The majority of the papers contained in this special issue are based on areas of research ranging from functional analytic techniques to Lie symmetry and singularity methods as well as numerical methods that are applied to both partial and ordinary differential equations. There are papers which deal with fractional and stochastic differential equations and in addition papers analysing equations that arise in engineering as well as classical and fluid mechanics and finance.

Hundred and fifteen papers were submitted for possible publication in this special issue. After a rigorous reviewing process, fifty-three papers were finally accepted for publication.

We very much hope that the papers published in this special issue will be useful to a large community of researchers and will arouse further research in the topics presented as well as in the connected fields.

Acknowledgments

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