



Nonlinear Partial Differential Equations: Exact Solutions, Symmetries, Methods, and Applications

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Message from the Guest Editor

Nonlinear partial differential equations are encountered in various fields of mathematics, physics, chemistry, and biology, and numerous applications. Exact (closed form) solutions of differential equations play an important role in the proper understanding of qualitative features of many phenomena and processes in various areas of natural and engineering sciences. Even the special exact solutions that do not have a clear physical meaning can be used as “test problems” to verify the consistency and estimate errors of various numerical, asymptotic, and approximate analytical methods. Exact solutions can serve as a basis for perfecting and testing computer algebra software packages for solving partial differential equations. This Special Issue aims to collect original and significant contributions to both exact solutions and topics related to symmetries, reductions, analytical methods, and different applications of nonlinear PDEs. In addition, this Special Issue may serve as a platform for the exchange of ideas between scientists of different disciplines interested in nonlinear partial differential equations and partial functional differential equations.





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Message from the Editor-in-Chief

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