

Special Issue on  
**Recent Advances in Numerical Methods and Analysis for  
Nonlinear Differential Equations**

# CALL FOR PAPERS

Nonlinear differential equations provide a powerful means of modeling plenty of natural phenomena in scientific fields. Many dynamic processes can be well understood through the solutions of the problems. Generally speaking, it is usually difficult to obtain the analytical solutions due to the nonlinearity. Therefore, it becomes an urgent topic to find efficient ways to numerically solve the nonlinear differential equations.

The construction and analysis of numerical schemes for nonlinear differential equations are usually very important. A well-designed numerical scheme can save lots of computational costs in the long-time simulations of the real-world problems. It can also give a better performance in the prediction of the mathematical models. Therefore, it is highly desirable to develop effective and efficient numerical schemes and their numerical analysis for nonlinear differential equations.

Potential topics include but are not limited to the following:

- ▶ New numerical methods for solving nonlinear differential equations with integer order
- ▶ New numerical methods for solving nonlinear fractional differential equation
- ▶ New numerical methods solving nonlinear integral equation
- ▶ Numerical analysis of the numerical methods
- ▶ Iterative algorithms and their application

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**Submission Deadline**

Friday, 22 June 2018

**Publication Date**

November 2018