



Boundary Value Problems for Nonlinear Fractional Differential Equations: Theory, Methods and Application

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Message from the Guest Editor

This Special Issue is devoted to the broad research areas involving Boundary Value Problems (BVPs) of Nonlinear Fractional Differential Equations. The study of nonlinear BVPs for Ordinary Differential Equations (ODEs), Partial Differential Equations (PEDs), Fractional Differential Equations (FDEs), and their discrete counterparts in the form of Difference Equations has a long history and various applications in sciences, engineering, social activities, and natural phenomenon. In particular, BVPs for fractional-order differential equations have attracted more and more interest and have achieved significant improvements recently, partly due to their new applications in physics, control theory, quantitative finance, econometrics, and signal processing.

We are interested in the most recent advances in the theory, methods, and applications of FDEs. Topics include, but are not limited to:

Existence and positivity of solutions;
Uniqueness and multiplicity of solutions;
Stability and equilibrium;
Fixed point methods and applications;
Modeling with FDEs;
Numerical solutions;
Neural networks and FDEs;
Eigenvalue problems;
Fractional q-differential equations.

