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Special Issue on

Nonlinear Analysis and Differential Equations

Call for Papers

"Nonlinear Analysis and Differential Equations" is a branch of mathematics focused on the study and characterization of differential equations that are not linear, meaning their solutions do not exhibit direct proportionality and additivity. This field investigates the behavior, solutions, and applications of nonlinear differential equations, which are pivotal in modeling complex phenomena across the natural sciences, engineering, and economics. Nonlinear analysis encompasses a variety of techniques to understand the existence, uniqueness, and stability of solutions, including fixed-point theorems, Lyapunov stability theory, and bifurcation analysis. Such mathematical tools are essential for unraveling the dynamics of systems where linear approximations are inadequate for capturing the intricacies of real-world scenarios.

In this special issue, we intend to invite front-line researchers and authors to submit original research and review articles on **Nonlinear Analysis and Differential Equations**. Potential topics include, but are not limited to:

- Qualitative behaviors and analysis
- Chaotic systems
- Bifurcation theory
- Stability theory
- Complex dynamics
- Dynamical systems
- Nonlinear partial differential equations
- Nonlinear ordinary differential equations
- Soliton theory
- Stochastic differential equations
- Numerical analysis of nonlinear equations
- Functional analysis in nonlinear equations
- Control theory of nonlinear systems
- Applications in scientific and engineering disciplines

Authors should read over the journal's <u>For Authors</u> carefully before submission. Prospective authors should submit an electronic copy of their complete manuscript through the journal's <u>Paper Submission System</u>.



Please kindly notice that the "Special Issue" under your manuscript title is supposed to be specified and the research field "Special Issue – *Nonlinear Analysis and Differential Equations*" should be chosen during your submission.

According to the following timetable:

Submission Deadline	August 28th, 2024
Publication Date	October 2024

For publishing inquiries, please feel free to contact the Editorial Assistant at submission.entrance1@scirp.org

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