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Special Issue on

Dynamical Systems: Modeling, Analysis, and Applications

Call for Papers

Dynamical Systems is a field of mathematics that studies systems that evolve over time according to specific rules. It encompasses both discrete and continuous systems, exploring their stability, chaos, bifurcations, and long-term behavior. Applications of dynamical systems theory span various disciplines, including physics, engineering, biology, economics, and control theory. Key topics include nonlinear dynamics, differential equations, ergodic theory, and fractals. By analyzing how systems change and interact, dynamical systems provide valuable insights into complex real-world phenomena, from planetary motion to population dynamics and fluid turbulence.

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

- Nonlinear dynamics
- Stability analysis
- Chaos theory
- Bifurcation theory
- Control theory
- Discrete dynamical systems
- Ergodic theory
- Complex systems
- Mathematical modeling
- Computational dynamics
- Fractal geometry
- Stochastic processes
- Hamiltonian systems
- Population dynamics
- Fluid dynamics
- Network dynamics
- Synchronization phenomena
- Perturbation methods
- Multiscale modeling
- Data-driven dynamical systems

Applied Mathematics



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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 specify the "Special Issue" under your manuscript title. The research field "Special Issue - *Dynamical Systems: Modeling, Analysis, and Applications*" should be selected during your submission.

Special Issue Timetable:

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