Special Issue

Phenomena in Nonlinear Dynamical Systems: Theory and Application

Message from the Guest Editor

Although research in the field of dynamics and oscillations dates back to ancient times, some problems still remain unsolved; these issues primarily concern non-linearities in systems or processes. The aim of this Special Issue is to publish the results of research on the influence of both physical and geometric nonlinearities on system dynamics. The following topics are of interest:
Mathematical modelling of nonlinear dynamical and vibration systems and processes;
New analytical and numerical solving procedures for strong nonlinear oscillators;
Nonlinear phenomena in dynamic systems;
Bifurcation and deterministic chaos;
Control in nonlinear oscillators;
Analogies between nonlinear mechanical and other systems;
Application of nonlinear oscillators in applied sciences and engineering. The Special Issue on “Phenomena in Nonlinear Dynamical Systems: Theory and Application” welcomes not only submissions on the aforementioned topics but also on all recent research covered by the topic in the title. The call is open to a broad thematic range of papers covering recent applications of dynamics, vibration and control theory.

Guest Editor

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Deadline for manuscript submissions

closed (30 April 2025)

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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