Special Issue

Theory and Applications in Nonlinear Oscillators: 2nd Edition

Message from the Guest Editor

Oscillations are fundamental to numerous physical, chemical, biological, and mechanical systems and play a vital role in many applications. Recent research has extensively explored oscillations and vibrations, with a particular focus on the intriguing characteristics of nonlinear oscillations. These oscillations can elucidate complex phenomena and offer solutions to mechanical, electrical, and other challenges. Emerging scientific fields, such as nonlinear targeted energy transfer and hidden oscillations, highlight the dynamic nature of this research area.

This Special Issue aims to create a platform for scientists to share their latest developments, discoveries, and advancements in both the theoretical and practical aspects of nonlinear oscillators. Topics that will be covered include nonlinear oscillations, hidden attractors, energy transfer, bifurcation theory, mathematical modeling of nonlinear oscillators, synchronization and chaos control, nonlinear circuits, mechanical applications in oscillations, and more.

Guest Editor

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Message from the Editor-in-Chief

Dynamics aims to cover the research needs of scholars working mainly with physical and chemical processes and thus focuses on the study of systems in these two fields, presenting both theoretical and experimental results. Of particular interest are papers detailing new results concerning dynamics theory regarding differential equations (ordinary differential equations, stochastic differential equations, fractional order systems, nonlinear systems, and chaos) and their discrete analogs, which consist of the mathematical base of the presented physical and chemical models. *Dynamics* will also publish papers concerning computational results and applications of physical and chemical processes in biology, engineering, robotics, and the other sciences, as well as papers in other areas of mathematics that have direct bearing on the dynamics of these kinds of processes.

Editor-in-Chief

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