Nonlinear Dynamics and Complexity

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Message from the Guest Editors

This Special Issue is dedicated to mathematical and numerical modeling of various processes in mechanics, biomechanics, biology, chemistry, physics, and other fields. Topics include mathematical models, differential equations systems solutions to the stability problem, and nonlinear dynamics problems of beam–plate–shell structures, in the form of both experimental studies and theoretical developments, taking into account deformation and fracture and contact interaction of structures. This issue is also devoted to the consideration and construction of mathematical models for nonlinear oscillations of biological structures, and physical, chemical, and mechanical processes, as well as the construction and substantiation of nonlinear analysis methods of micro- and nanomaterials.

The issue will undoubtedly serve as a valuable guide for researchers interested in participating in this interdisciplinary field. In addition, it will be useful for encouraging further experimental and theoretical research in the fields of numerical modeling mentioned above, which use mathematical and computer modeling.

Special Issue