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New Challenges in Nonlinear Vibration and Aeroelastic Analysis

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Message from the Guest Editors

The prominent vibration problem in the operation of equipment and structures has always been an important concern of researchers in the aerospace, mechanical, construction, and other engineering fields. In particular, the lightweight structure, high speed, and high maneuverability of high-speed aircraft pose a serious risk of aerodynamic loads on the wings or fuselage panels. Furthermore, nonlinear effects, such as those of a structural, material, and aerodynamic nature, could lead to significant nonlinear vibration characteristics; therefore, the nonlinear vibration and aeroelastic characteristics of a structure, represented by the panels or shells, are hot topics in the fields of aerospace science and engineering. Also, active/passive controls of nonlinear vibration and the aeroelastic instability under aerodynamic loads are key issues to improve the overall performance of equipment.

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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.

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