



Shock and Vibration

Special Issue on
Vibration Control of Systems in Presence of Hard Nonlinearities

CALL FOR PAPERS

Vibration phenomena involve a wide range of engineering systems and structures such as, for example, buildings, vehicles, aircrafts, bridges, and electronic components. Due to the undesired effects of the vibration induced motions, the vibration control is a theme on which many researchers are focusing their attention in the recent years. The main scope of the vibration control is the suppression or, at least, the attenuation of the undesirable vibrations by means of passive, semiactive, or active devices. Hard nonlinearities can be found in vibrating systems because of inherent system nonlinear properties and/or the presence of dampers, stiffness elements, and actuators which are often characterized by hysteresis, dead zone, and so forth.

This special issue intends to provide an up-to-date overview of recent advances in the vibration control of systems characterized by hard nonlinearities and, in view of the above considerations, prospective authors are invited to contribute to this special issue with original research articles as well as review articles that can provide advanced methodologies to deal with the existing challenges in this important research area.

Potential topics include, but are not limited to:

- ▶ Modelling, simulation, and control of vibrating systems in presence of hard nonlinearities
- ▶ Experimental investigations by means of hybrid approaches and techniques
- ▶ Design and experimental validations of passive, semiactive, and active devices for vibration control of hard nonlinear systems
- ▶ State estimation in hard nonlinear vibrating systems
- ▶ Applications to vibration control of strongly nonlinear apparatuses, bridges, high-rise buildings, tunnelling, machines, vehicles, and vessels

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/sv/vcn/>.

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