Special Issue

Recent Advances in N/MEMS Nonlinear Dynamics

Message from the Guest Editors

Since the rise of Integrated Circuit (IC) technology in 1990, nano/microelectromechanical systems (N/MEMS) have increasingly attracted considerable interest due to their small size and low power consumption. Due to the effects of micro size and multi-energy coupling, N/MEMS systems can be easily driven into nonlinear regimes, which leads to rich nonlinear phenomena such as internal resonance, super/sub-harmonic synchronization, frequency locking, dynamic pull-in, frequency comb response, etc. Recent research has found that some of the nonlinear effects can be utilized to improve the dynamic performance of N/MEMS systems, which provides novel ideas for the design of high-performance sensing, actuating, or memory devices. Thus, this Special Issue seeks to showcase research papers, communications, and review articles that focus on recent advances in the field of the nonlinear dynamics of N/MEMS systems.

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Deadline for manuscript submissions

closed (31 December 2023)

Micromachines

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Impact Factor 3.0
CiteScore 6.0
Indexed in PubMed

mdpi.com/si/158426

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