



MECHANICAL ENGINEERING SEMINAR

Monday, May 20 2024 at 14:30, D. Dan and Betty Kahn Building, Room 217
and online: <https://technion.zoom.us/j/99894975050>

Structural instabilities: a doorway to intriguing behavior and non-intuitive phenomena

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Multi-stable structures offer some unique mechanical behaviors and phenomena, such as the ability to undergo large reversible deformations, the ability to provide mechanical protection and efficient shock absorption, to carry mechanical signals for large distances, and to retain variety of geometrical configurations after loads have been removed.

While the quasi-static behavior of 1-D bistable lattices has been extensively studied, the dynamic response of such arrays, and especially that concerning 2-D multi-stable lattices, is still in its infancy. In this talk, I will present theoretical, numerical, and experimental results related to the static and dynamic response of 1-D and 2-D bistable arrays, demonstrating intriguing and non-intuitive phenomena as well as providing some important insights.