

# Accepted Manuscript

## Vibration of Mechanically-Assembled 3D Microstructures Formed by Compressive Buckling

Heling Wang , Xin Ning , Haibo Li , Haiwen Luan , Yeguang Xue ,  
Xinge Yu , Zhichao Fan , Luming Li , John A. Rogers ,  
Yihui Zhang , Yonggang Huang

PII: S0022-5096(17)31001-3  
DOI: [10.1016/j.jmps.2017.12.002](https://doi.org/10.1016/j.jmps.2017.12.002)  
Reference: MPS 3244



To appear in: *Journal of the Mechanics and Physics of Solids*

Received date: 4 November 2017  
Revised date: 6 December 2017  
Accepted date: 6 December 2017

Please cite this article as: Heling Wang , Xin Ning , Haibo Li , Haiwen Luan , Yeguang Xue , Xinge Yu , Zhichao Fan , Luming Li , John A. Rogers , Yihui Zhang , Yonggang Huang , Vibration of Mechanically-Assembled 3D Microstructures Formed by Compressive Buckling, *Journal of the Mechanics and Physics of Solids* (2017), doi: [10.1016/j.jmps.2017.12.002](https://doi.org/10.1016/j.jmps.2017.12.002)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

**Highlights**

- Analytic solution of vibration modes & linear natural frequency of a buckled ribbon
- Mode change as the static deflection amplitude of buckled ribbon increases
- Scaling law of linear natural frequency for general, complex 3D structures
- Reduced vibration nonlinearity as deflection amplitudes of 3D structures increase

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/7177508>

Download Persian Version:

<https://daneshyari.com/article/7177508>

[Daneshyari.com](https://daneshyari.com)