

## Sophia Marie Leanza

Ph.D. Student in Mechanical Engineering, admitted Summer 2023

### Publications

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#### PUBLICATIONS

- **Multiple equilibrium states of a curved-sided hexagram: Part I-stability of states** *JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS*  
Lu, L., Dai, J., Leanza, S., Zhao, R., Hutchinson, J. W.  
2023; 180
- **Multiple equilibrium states of a curved-sided hexagram: Part II-Transitions between states** *JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS*  
Lu, L., Dai, J., Leanza, S., Hutchinson, J. W., Zhao, R.  
2023; 180
- **Liquid Crystal Elastomer - Liquid Metal Composite: Ultrafast, Untethered, And Programmable Actuation by Induction Heating.** *Advanced materials (Deerfield Beach, Fla.)*  
Maurin, V., Chang, Y., Ze, Q., Leanza, S., Wang, J., Zhao, R. R.  
2023: e2302765
- **Active Materials for Functional Origami.** *Advanced materials (Deerfield Beach, Fla.)*  
Leanza, S., Wu, S., Sun, X., Qi, H. J., Zhao, R. R.  
2023: e2302066
- **Easy snap-folding of hexagonal ring origami by geometric modifications** *JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS*  
Lu, L., Leanza, S., Dai, J., Sun, X., Zhao, R.  
2023; 171
- **Hexagonal Ring Origami Assemblies: Foldable Functional Structures With Extreme Packing** *JOURNAL OF APPLIED MECHANICS-TRANSACTIONS OF THE ASME*  
Leanza, S., Wu, S., Dai, J., Zhao, R.  
2022; 89 (8)
- **Phase diagram and mechanics of snap-folding of ring origami by twisting** *INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES*  
Sun, X., Wu, S., Dai, J., Leanza, S., Yue, L., Yu, L., Jin, Y., Qi, H., Zhao, R.  
2022; 248
- **Spinning-enabled wireless amphibious origami millirobot.** *Nature communications*  
Ze, Q., Wu, S., Dai, J., Leanza, S., Ikeda, G., Yang, P. C., Iaccarino, G., Zhao, R. R.  
2022; 13 (1): 3118
- **Hexagonal ring origami-Snap-folding with large packing ratio** *EXTREME MECHANICS LETTERS*  
Wu, S., Dai, J., Leanza, S., Zhao, R.  
2022; 53
- **Soft robotic origami crawler.** *Science advances*  
Ze, Q., Wu, S., Nishikawa, J., Dai, J., Sun, Y., Leanza, S., Zemelka, C., Novelino, L. S., Paulino, G. H., Zhao, R. R.  
2022; 8 (13): eabm7834