

# Jongmin Shim

## List of Publications by Year in descending order

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29  
papers

3,533  
citations

516710

16  
h-index

477307

29  
g-index

30  
all docs

30  
docs citations

30  
times ranked

4363  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Supervised Machine Learning Approaches to Modeling Residential Infill Development in the City of Los Angeles. <i>Journal of the Urban Planning and Development Division, ASCE</i> , 2022, 148, .                                      | 1.7  | 2         |
| 2  | On the mechanism of pattern transformations in soft granular crystals. <i>International Journal of Mechanical Sciences</i> , 2022, , 107324.  | 6.7  | 0         |
| 3  | Weakening-induced Snap Instability as a Novel Reusable Force Protection Mechanism. <i>International Journal of Mechanical Sciences</i> , 2021, 207, 106645.   | 6.7  | 3         |
| 4  | Numerical study on the phononic band-structure of soft granular crystals. <i>International Journal of Solids and Structures</i> , 2020, 191-192, 173-186.   | 2.7  | 5         |
| 5  | Optimization of Viscoelastic Metamaterials for Vibration Attenuation Properties. <i>International Journal of Applied Mechanics</i> , 2020, 12, 2050116.   | 2.2  | 13        |
| 6  | Wearable self-powered pressure sensor by integration of piezo-transmittance microporous elastomer with organic solar cell. <i>Nano Energy</i> , 2020, 74, 104749.   | 16.0 | 49        |
| 7  | Hybrid Split Hopkinson Pressure Bar to Identify Impulse-dependent Wave Characteristics of Viscoelastic Phononic Crystals. <i>Experimental Mechanics</i> , 2019, 59, 95-109.   | 2.0  | 2         |
| 8  | Limiting strain for auxeticity under large compressive Deformation: Chiral vs. re-entrant cellular solids. <i>International Journal of Solids and Structures</i> , 2019, 162, 87-95.  | 2.7  | 40        |
| 9  | Sagittal Plane Waves in Infinitely Periodic Multilayered Composites Composed of Alternating Viscoelastic and Elastic Solids. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2018, 85, .                                     | 2.2  | 7         |
| 10 | Snapping Facades: Exploring Elastic Instability for the Building Envelope. <i>Technology Architecture and Design</i> , 2018, 2, 45-54.  | 0.2  | 4         |
| 11 | Generalized Spatial Aliasing Solution for the Dispersion Analysis of Infinitely Periodic Multilayered Composites Using the Finite Element Method. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2017, 139, .  | 1.6  | 5         |
| 12 | A class of diatomic 2-D soft granular crystals undergoing pattern transformations. <i>Soft Matter</i> , 2017, 13, 5824-5831.  | 2.7  | 6         |
| 13 | Mechanics of instability-induced pattern transformations in elastomeric porous cylinders. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 96, 1-17.   | 4.8  | 45        |
| 14 | On spatial aliasing in the phononic band-structure of layered composites. <i>International Journal of Solids and Structures</i> , 2016, 96, 380-392.  | 2.7  | 6         |
| 15 | Highly Sensitive, Flexible, and Wearable Pressure Sensor Based on a Giant Piezocapacitive Effect of Three-Dimensional Microporous Elastomeric Dielectric Layer. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 16922-16931. | 8.0  | 404       |
| 16 | Harnessing instability-induced pattern transformation to design tunable phononic crystals. <i>International Journal of Solids and Structures</i> , 2015, 58, 52-61.   | 2.7  | 111       |
| 17 | Pneumatic Networks for Soft Robotics that Actuate Rapidly. <i>Advanced Functional Materials</i> , 2014, 24, 2163-2170.  | 14.9 | 1,125     |
| 18 | Harnessing instabilities for design of soft reconfigurable auxetic/chiral materials. <i>Soft Matter</i> , 2013, 9, 8198.  | 2.7  | 174       |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | 3D Soft Metamaterials with Negative Poisson's Ratio. <i>Advanced Materials</i> , 2013, 25, 5044-5049.   | 21.0 | 615       |
| 20 | Effects of geometric and material nonlinearities on tunable band gaps and low-frequency directionality of phononic crystals. <i>Physical Review B</i> , 2013, 88, .   | 3.2  | 145       |
| 21 | Metamaterials: 3D Soft Metamaterials with Negative Poisson's Ratio ( <i>Adv. Mater.</i> 36/2013). <i>Advanced Materials</i> , 2013, 25, 5116-5116.  | 21.0 | 8         |
| 22 | Buckling-induced encapsulation of structured elastic shells under pressure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 5978-5983.                      | 7.1  | 218       |
| 23 | Switching periodic membranes via pattern transformation and shape memory effect. <i>Soft Matter</i> , 2012, 8, 10322.   | 2.7  | 98        |
| 24 | Modeling of cardiac muscle thin films: Pre-stretch, passive and active behavior. <i>Journal of Biomechanics</i> , 2012, 45, 832-841.  | 2.1  | 52        |
| 25 | Deformation induced pattern transformation in a soft granular crystal. <i>Soft Matter</i> , 2011, 7, 2321.  | 2.7  | 15        |
| 26 | Punch indentation of polyurea at different loading velocities: Experiments and numerical simulations. <i>Mechanics of Materials</i> , 2011, 43, 349-360.  | 3.2  | 10        |
| 27 | Rate dependent finite strain constitutive model of polyurea. <i>International Journal of Plasticity</i> , 2011, 27, 868-886.  | 8.8  | 79        |
| 28 | Using split Hopkinson pressure bars to perform large strain compression tests on polyurea at low, intermediate and high strain rates. <i>International Journal of Impact Engineering</i> , 2009, 36, 1116-1127. | 5.0  | 137       |
| 29 | HEALTH-MONITORING METHOD FOR BRIDGES UNDER ORDINARY TRAFFIC LOADINGS. <i>Journal of Sound and Vibration</i> , 2002, 257, 247-264.   | 3.9  | 114       |