

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
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30
all docs

30
docs citations

30
times ranked

4363
citing authors

#	ARTICLE	IF	CITATIONS
1	Pneumatic Networks for Soft Robotics that Actuate Rapidly. <i>Advanced Functional Materials</i> , 2014, 24, 2163-2170.	14.9	1,125
2	3D Soft Metamaterials with Negative Poisson's Ratio. <i>Advanced Materials</i> , 2013, 25, 5044-5049.	21.0	615
3	Highly Sensitive, Flexible, and Wearable Pressure Sensor Based on a Giant Piezocapacitive Effect of Three-Dimensional Microporous Elastomeric Dielectric Layer. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 16922-16931.	8.0	404
4	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
5	Harnessing instabilities for design of soft reconfigurable auxetic/chiral materials. <i>Soft Matter</i> , 2013, 9, 8198.	2.7	174
6	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
7	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
8	HEALTH-MONITORING METHOD FOR BRIDGES UNDER ORDINARY TRAFFIC LOADINGS. <i>Journal of Sound and Vibration</i> , 2002, 257, 247-264.	3.9	114
9	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
10	Switching periodic membranes via pattern transformation and shape memory effect. <i>Soft Matter</i> , 2012, 8, 10322.	2.7	98
11	Rate dependent finite strain constitutive model of polyurea. <i>International Journal of Plasticity</i> , 2011, 27, 868-886.	8.8	79
12	Modeling of cardiac muscle thin films: Pre-stretch, passive and active behavior. <i>Journal of Biomechanics</i> , 2012, 45, 832-841.	2.1	52
13	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
14	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
15	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
16	Deformation induced pattern transformation in a soft granular crystal. <i>Soft Matter</i> , 2011, 7, 2321.	2.7	15
17	Optimization of Viscoelastic Metamaterials for Vibration Attenuation Properties. <i>International Journal of Applied Mechanics</i> , 2020, 12, 2050116.	2.2	13
18	Punch indentation of polyurea at different loading velocities: Experiments and numerical simulations. <i>Mechanics of Materials</i> , 2011, 43, 349-360.	3.2	10

#	ARTICLE	IF	CITATIONS
19	Metamaterials: 3D Soft Metamaterials with Negative Poisson's Ratio (Adv. Mater. 36/2013). Advanced Materials, 2013, 25, 5116-5116.	21.0	8
20	Sagittal Plane Waves in Infinitely Periodic Multilayered Composites Composed of Alternating Viscoelastic and Elastic Solids. Journal of Applied Mechanics, Transactions ASME, 2018, 85, .	2.2	7
21	On spatial aliasing in the phononic band-structure of layered composites. International Journal of Solids and Structures, 2016, 96, 380-392.	2.7	6
22	A class of diatomic 2-D soft granular crystals undergoing pattern transformations. Soft Matter, 2017, 13, 5824-5831.	2.7	6
23	Generalized Spatial Aliasing Solution for the Dispersion Analysis of Infinitely Periodic Multilayered Composites Using the Finite Element Method. Journal of Vibration and Acoustics, Transactions of the ASME, 2017, 139, .	1.6	5
24	Numerical study on the phononic band-structure of soft granular crystals. International Journal of Solids and Structures, 2020, 191-192, 173-186.	2.7	5
25	Snapping Facades: Exploring Elastic Instability for the Building Envelope. Technology Architecture and Design, 2018, 2, 45-54.	0.2	4
26	Weakening-induced Snap Instability as a Novel Reusable Force Protection Mechanism. International Journal of Mechanical Sciences, 2021, 207, 106645.	6.7	3
27	Hybrid Split Hopkinson Pressure Bar to Identify Impulse-dependent Wave Characteristics of Viscoelastic Phononic Crystals. Experimental Mechanics, 2019, 59, 95-109.	2.0	2
28	Supervised Machine Learning Approaches to Modeling Residential Infill Development in the City of Los Angeles. Journal of the Urban Planning and Development Division, ASCE, 2022, 148, .	1.7	2
29	On the mechanism of pattern transformations in soft granular crystals. International Journal of Mechanical Sciences, 2022, , 107324.	6.7	0