

Julian J Rimoli

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

1,135
citations

394421

19
h-index

414414

32
g-index

52
all docs

52
docs citations

52
times ranked

1038
citing authors

#	ARTICLE	IF	CITATIONS
1	An approach for incorporating classical continuum damage models in state-based peridynamics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 263, 20-26.	6.6	120
2	Smart finite elements: A novel machine learning application. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 345, 363-381.	6.6	101
3	Smart constitutive laws: Inelastic homogenization through machine learning. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 373, 113482.	6.6	91
4	Wave propagation in periodically undulated beams and plates. <i>International Journal of Solids and Structures</i> , 2015, 75-76, 260-276.	2.7	67
5	Mechanical response of 3-dimensional tensegrity lattices. <i>Composites Part B: Engineering</i> , 2017, 115, 30-42.	12.0	65
6	Wet-sand impulse loading of metallic plates and corrugated core sandwich panels. <i>International Journal of Impact Engineering</i> , 2011, 38, 837-848.	5.0	53
7	Anisotropy-induced broadband stress wave steering in periodic lattices. <i>International Journal of Solids and Structures</i> , 2013, 50, 1402-1414.	2.7	51
8	A three-dimensional multiscale model of intergranular hydrogen-assisted cracking. <i>Philosophical Magazine</i> , 2010, 90, 2939-2963.	1.6	42
9	Design and impact response of 3D-printable tensegrity-inspired structures. <i>Materials and Design</i> , 2019, 182, 107966.	7.0	39
10	Tensegrity Metamaterials: Toward Failure-Resistant Engineering Systems through Delocalized Deformation. <i>Advanced Materials</i> , 2021, 33, e2005647.	21.0	37
11	Shock-induced subgrain microstructures as possible homogenous sources of hot spots and initiation sites in energetic polycrystals. <i>Physical Review B</i> , 2010, 81, .	3.2	34
12	A continuum model for nonlinear lattices under large deformations. <i>International Journal of Solids and Structures</i> , 2016, 96, 300-319.	2.7	34
13	Effect of large deformation pre-loads on the wave properties of hexagonal lattices. <i>Smart Materials and Structures</i> , 2016, 25, 054010.	3.5	31
14	Tunable wave propagation by varying prestrain in tensegrity-based periodic media. <i>Extreme Mechanics Letters</i> , 2018, 22, 149-156.	4.1	29
15	Analysis of thermomechanical response of polycrystalline HMX under impact loading through mesoscale simulations. <i>AIP Advances</i> , 2014, 4, .	1.3	26
16	A reduced-order model for the dynamic and post-buckling behavior of tensegrity structures. <i>Mechanics of Materials</i> , 2018, 116, 146-157.	3.2	26
17	A geometric multiscale finite element method for the dynamic analysis of heterogeneous solids. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2013, 263, 56-70.	6.6	25
18	Plasma-Induced Erosion on Ceramic Wall Structures in Hall-Effect Thrusters. <i>Journal of Propulsion and Power</i> , 2014, 30, 690-695.	2.2	23

#	ARTICLE	IF	CITATIONS
19	Prestress-controlled asymmetric wave propagation and reciprocity-breaking in tensegrity metastructure. <i>Extreme Mechanics Letters</i> , 2020, 37, 100724.	4.1	23
20	Material symmetry phase transitions in three-dimensional tensegrity metamaterials. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 119, 382-399.	4.8	21
21	Nonlocal Superelastic Model of Size-Dependent Hardening and Dissipation in Single Crystal Cu-Al-Ni Shape Memory Alloys. <i>Physical Review Letters</i> , 2011, 106, 085504.	7.8	17
22	Generation of statistically representative microstructures with direct grain geometry control. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 370, 113242.	6.6	16
23	Multiscale finite element analysis of wave propagation in periodic solids. <i>Finite Elements in Analysis and Design</i> , 2016, 108, 81-95.	3.2	15
24	Optical evaluation of the wave filtering properties of graded undulated lattices. <i>Journal of Applied Physics</i> , 2018, 123, 091706.	2.5	15
25	Multiscale finite element analysis of elastic wave scattering from localized defects. <i>Finite Elements in Analysis and Design</i> , 2014, 88, 1-15.	3.2	14
26	New perspectives on the grain-size dependent yield strength of polycrystalline metals. <i>Scripta Materialia</i> , 2019, 166, 149-153.	5.2	14
27	MicroStructPy: A statistical microstructure mesh generator in Python. <i>SoftwareX</i> , 2020, 12, 100595.	2.6	14
28	Optimization for energy absorption of 3-dimensional tensegrity lattice with truncated octahedral units. <i>Composite Structures</i> , 2021, 267, 113903.	5.8	11
29	Meshing strategies for the alleviation of mesh-induced effects in cohesive element models. <i>International Journal of Fracture</i> , 2015, 193, 29-42.	2.2	9
30	A duality-based method for generating geometric representations of polycrystals. <i>International Journal for Numerical Methods in Engineering</i> , 2011, 86, 1069-1081.	2.8	7
31	Three-Dimensional Model for Erosion of a Hall-Effect Thruster Discharge Channel Wall. <i>Journal of Propulsion and Power</i> , 2014, 30, 1373-1382.	2.2	7
32	A length-dependent model for the thermomechanical response of ceramics. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 82, 82-96.	4.8	6
33	Design of a Crashworthy Cable-Driven Four-Bar Link Robotic Landing Gear System. <i>Journal of Aircraft</i> , 2020, 57, 224-244.	2.4	6
34	Out-of-Plane Elastic Waves in 2D Models of Solids: A Case Study for a Nonlocal Discretization Scheme with Reduced Numerical Dispersion. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-15.	1.1	5
35	Modal-based finite elements for efficient wave propagation analysis. <i>Finite Elements in Analysis and Design</i> , 2018, 145, 10-19.	3.2	5
36	Elastomer Encapsulated Pressure Sensor With Engineered Air Cavity for Force Sensing. <i>IEEE Sensors Journal</i> , 2019, 19, 6628-6643.	4.7	5

#	ARTICLE	IF	CITATIONS
37	On the mesh dependency of cohesive zone models for crack propagation analysis. , 2012, , .		4
38	Investigation of Plasma Material Erosion Under Mechanical Stress. Journal of Propulsion and Power, 2017, 33, 433-447.	2.2	4
39	Formation and Impact of Microcracks in Plasma Erosion of M26 Boron Nitride. Journal of Propulsion and Power, 2021, 37, 59-67.	2.2	4
40	A nonlocal finite difference scheme for simulation of wave propagation in 2D models with reduced numerical dispersion. Proceedings of SPIE, 2014, , .	0.8	3
41	Soft Tensegrity Systems for Planetary Landing and Exploration. , 2021, , .		3
42	Rotorcraft Dynamic Platform Landings Using Robotic Landing Gear. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2021, 143, .	1.6	3
43	Publisher's Note: Nonlocal Superelastic Model of Size-Dependent Hardening and Dissipation in Single Crystal Cu-Al-Ni Shape Memory Alloys [Phys. Rev. Lett. 106, 085504 (2011)]. Physical Review Letters, 2011, 106, .	7.8	2
44	Cable-Driven Four-Bar Link Robotic Landing Gear Mechanism: Rapid Design and Survivability Testing. , 2018, , .		2
45	Non-Schmid effects and finite wavelength instabilities in single crystal metals. Extreme Mechanics Letters, 2018, 20, 9-13.	4.1	2
46	Modal-Based Finite Elements for Efficient Wave Propagation Analysis. , 2013, , .		1
47	Exploiting length-dependent effects for the design of single-material systems with enhanced thermal transport properties. International Journal of Heat and Mass Transfer, 2016, 101, 1227-1236.	4.8	1
48	Editorial: Multiscale Lattices and Composite Materials: Optimal Design, Modeling and Characterization. Frontiers in Materials, 2019, 6, .	2.4	1
49	Smart parts: Data-driven model order reduction for nonlinear mechanical assemblies. Finite Elements in Analysis and Design, 2022, 200, 103682.	3.2	1
50	Multiscale analysis of wave-damage interaction in two and three dimensional isotropic plates. Proceedings of SPIE, 2013, , .	0.8	0
51	Search for Anomalous Ridge Growth during Stressed Material Plasma Erosion. , 2016, , .		0
52	Tensegrity Metamaterials: Tensegrity Metamaterials: Toward Failure-Resistant Engineering Systems through Delocalized Deformation (Adv. Mater. 10/2021). Advanced Materials, 2021, 33, 2170077.	21.0	0