Julian J Rimoli

List of Publications by Year
in descending order

52	1,135	394421	414414
papers	citations	19 h-index	32 g-index

52	52	52	1038
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Smart parts: Data-driven model order reduction for nonlinear mechanical assemblies. Finite Elements in Analysis and Design, 2022, 200, 103682.	3.2	1
2	Formation and Impact of Microcracks in Plasma Erosion of M26 Boron Nitride. Journal of Propulsion and Power, 2021, 37, 59-67.	2.2	4
3	Smart constitutive laws: Inelastic homogenization through machine learning. Computer Methods in Applied Mechanics and Engineering, 2021, 373, 113482.	6.6	91
4	Tensegrity Metamaterials: Toward Failureâ€Resistant Engineering Systems through Delocalized Deformation. Advanced Materials, 2021, 33, e2005647.	21.0	37
5	Tensegrity Metamaterials: Tensegrity Metamaterials: Toward Failureâ€Resistant Engineering Systems through Delocalized Deformation (Adv. Mater. 10/2021). Advanced Materials, 2021, 33, 2170077.	21.0	0
6	Soft Tensegrity Systems for Planetary Landing and Exploration. , 2021, , .		3
7	Rotorcraft Dynamic Platform Landings Using Robotic Landing Gear. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2021, 143, .	1.6	3
8	Optimization for energy absorption of 3-dimensional tensegrity lattice with truncated octahedral units. Composite Structures, 2021, 267, 113903.	5.8	11
9	Design of a Crashworthy Cable-Driven Four-Bar Link Robotic Landing Gear System. Journal of Aircraft, 2020, 57, 224-244.	2.4	6
10	Generation of statistically representative microstructures with direct grain geometry control. Computer Methods in Applied Mechanics and Engineering, 2020, 370, 113242.	6.6	16
11	MicroStructPy: A statistical microstructure mesh generator in Python. SoftwareX, 2020, 12, 100595.	2.6	14
12	Prestress-controlled asymmetric wave propagation and reciprocity-breaking in tensegrity metastructure. Extreme Mechanics Letters, 2020, 37, 100724.	4.1	23
13	Elastomer Encapsulated Pressure Sensor With Engineered Air Cavity for Force Sensing. IEEE Sensors Journal, 2019, 19, 6628-6643.	4.7	5
14	Design and impact response of 3D-printable tensegrity-inspired structures. Materials and Design, 2019, 182, 107966.	7.0	39
15	Editorial: Multiscale Lattices and Composite Materials: Optimal Design, Modeling and Characterization. Frontiers in Materials, 2019, 6, .	2.4	1
16	New perspectives on the grain-size dependent yield strength of polycrystalline metals. Scripta Materialia, 2019, 166, 149-153.	5.2	14
17	Smart finite elements: A novel machine learning application. Computer Methods in Applied Mechanics and Engineering, 2019, 345, 363-381.	6.6	101
18	Cable-Driven Four-Bar Link Robotic Landing Gear Mechanism: Rapid Design and Survivability Testing. , 2018, , .		2

#	Article	IF	Citations
19	Non-Schmid effects and finite wavelength instabilities in single crystal metals. Extreme Mechanics Letters, 2018, 20, 9-13.	4.1	2
20	Optical evaluation of the wave filtering properties of graded undulated lattices. Journal of Applied Physics, 2018, 123, 091706.	2.5	15
21	Modal-based finite elements for efficient wave propagation analysis. Finite Elements in Analysis and Design, 2018, 145, 10-19.	3.2	5
22	A reduced-order model for the dynamic and post-buckling behavior of tensegrity structures. Mechanics of Materials, 2018, 116, 146-157.	3.2	26
23	Tunable wave propagation by varying prestrain in tensegrity-based periodic media. Extreme Mechanics Letters, 2018, 22, 149-156.	4.1	29
24	Material symmetry phase transitions in three-dimensional tensegrity metamaterials. Journal of the Mechanics and Physics of Solids, 2018, 119, 382-399.	4.8	21
25	Mechanical response of 3-dimensional tensegrity lattices. Composites Part B: Engineering, 2017, 115, 30-42.	12.0	65
26	Investigation of Plasma Material Erosion Under Mechanical Stress. Journal of Propulsion and Power, 2017, 33, 433-447.	2.2	4
27	Effect of large deformation pre-loads on the wave properties of hexagonal lattices. Smart Materials and Structures, 2016, 25, 054010.	3.5	31
28	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
29	Search for Anomalous Ridge Growth during Stressed Material Plasma Erosion. , 2016, , .		0
30	A continuum model for nonlinear lattices under large deformations. International Journal of Solids and Structures, 2016, 96, 300-319.	2.7	34
31	Multiscale finite element analysis of wave propagation in periodic solids. Finite Elements in Analysis and Design, 2016, 108, 81-95.	3.2	15
32	Out-of-Plane Elastic Waves in 2D Models of Solids: A Case Study for a Nonlocal Discretization Scheme with Reduced Numerical Dispersion. Mathematical Problems in Engineering, 2015, 2015, 1-15.	1.1	5
33	A length-dependent model for the thermomechanical response of ceramics. Journal of the Mechanics and Physics of Solids, 2015, 82, 82-96.	4.8	6
34	Meshing strategies for the alleviation of mesh-induced effects in cohesive element models. International Journal of Fracture, 2015, 193, 29-42.	2.2	9
35	Wave propagation in periodically undulated beams and plates. International Journal of Solids and Structures, 2015, 75-76, 260-276.	2.7	67
36	Three-Dimensional Model for Erosion of a Hall-Effect Thruster Discharge Channel Wall. Journal of Propulsion and Power, 2014, 30, 1373-1382.	2.2	7

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37	A nonlocal finite difference scheme for simulation of wave propagation in 2D models with reduced numerical dispersion. Proceedings of SPIE, 2014, , .	0.8	3
38	Analysis of thermomechanical response of polycrystalline HMX under impact loading through mesoscale simulations. AIP Advances, 2014, 4, .	1.3	26
39	Plasma-Induced Erosion on Ceramic Wall Structures in Hall-Effect Thrusters. Journal of Propulsion and Power, 2014, 30, 690-695.	2.2	23
40	Multiscale finite element analysis of elastic wave scattering from localized defects. Finite Elements in Analysis and Design, 2014, 88, 1-15.	3.2	14
41	Anisotropy-induced broadband stress wave steering in periodic lattices. International Journal of Solids and Structures, 2013, 50, 1402-1414.	2.7	51
42	An approach for incorporating classical continuum damage models in state-based peridynamics. Computer Methods in Applied Mechanics and Engineering, 2013, 263, 20-26.	6.6	120
43	A geometric multiscale finite element method for the dynamic analysis of heterogeneous solids. Computer Methods in Applied Mechanics and Engineering, 2013, 263, 56-70.	6.6	25
44	Multiscale analysis of wave-damage interaction in two and three dimensional isotropic plates. Proceedings of SPIE, 2013, , .	0.8	0
45	Modal-Based Finite Elements for Efficient Wave Propagation Analysis. , 2013, , .		1
46	On the mesh dependency of cohesive zone models for crack propagation analysis. , 2012, , .		4
47	Nonlocal Superelastic Model of Size-Dependent Hardening and Dissipation in Single Crystal Cu-Al-Ni Shape Memory Alloys. Physical Review Letters, 2011, 106, 085504.	7.8	17
48	A dualityâ€based method for generating geometric representations of polycrystals. International Journal for Numerical Methods in Engineering, 2011, 86, 1069-1081.	2.8	7
49	Wet-sand impulse loading of metallic plates and corrugated core sandwich panels. International Journal of Impact Engineering, 2011, 38, 837-848.	5.0	53
50	Publisherâ€™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
51	A three-dimensional multiscale model of intergranular hydrogen-assisted cracking. Philosophical Magazine, 2010, 90, 2939-2963.	1.6	42
52	Shock-induced subgrain microstructures as possible homogenous sources of hot spots and initiation sites in energetic polycrystals. Physical Review B, 2010, 81, .	3.2	34