

David Restrepo

List of Publications by Year in descending order

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Version: 2024-02-01

31
papers

1,299
citations

777949

13
h-index

620720

26
g-index

33
all docs

33
docs citations

33
times ranked

1941
citing authors

#	ARTICLE	IF	CITATIONS
1	Tearing energy calculation in hyperelastic fracture mechanics using the local and global complex-variable finite element method. <i>International Journal of Solids and Structures</i> , 2022, 239-240, 111425.	1.3	0
2	Sensitivity Analysis for Transient Thermal Problems Using the Complex-Variable Finite Element Method. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 2738.	1.3	3
3	A complex-variable finite element method-based inverse methodology to extract constitutive parameters using experimental data. <i>International Journal of Solids and Structures</i> , 2022, 243, 111545.	1.3	2
4	Novel expandable architected breathing tube for improving airway securement in emergency care. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 114, 104211.	1.5	5
5	A complex-variable cohesive finite element subroutine to enable efficient determination of interfacial cohesive material parameters. <i>Engineering Fracture Mechanics</i> , 2021, 247, 107638.	2.0	8
6	Novel Architected Material for Cardiac Patches. <i>Jom</i> , 2021, 73, 1765-1773.	0.9	0
7	Architected material analogs for shape memory alloys. <i>Matter</i> , 2021, 4, 1990-2012.	5.0	29
8	Innovative Solution for Airway Securement in Combat and Trauma Scenarios. <i>Medical Journal</i> , 2021, , 14-19.	0.1	1
9	Comprehensive Decision Support for Prehospital Combat Casualty Care: The Airway Clearance Model. <i>Medical Journal</i> , 2021, , 31-35.	0.1	1
10	Toughening mechanisms of the elytra of the diabolical ironclad beetle. <i>Nature</i> , 2020, 586, 543-548.	13.7	121
11	Bioinspired robotic exoskeleton for endotracheal intubation. <i>Journal of Materials Research and Technology</i> , 2020, 9, 12167-12176.	2.6	1
12	Radular stylus of <i>Cryptochiton stelleri</i> : A multifunctional lightweight and flexible fiber-reinforced composite. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 111, 103991.	1.5	14
13	Advanced Manufacturing for Biomaterials and Biological Materials, Part II. <i>Jom</i> , 2020, 72, 1432-1434.	0.9	0
14	Advanced Manufacturing for Biomaterials and Biological Materials, Part I. <i>Jom</i> , 2020, 72, 1151-1153.	0.9	2
15	Multiscale Toughening Mechanisms in Biological Materials and Bioinspired Designs. <i>Advanced Materials</i> , 2019, 31, e1901561.	11.1	342
16	Energy dissipation in functionally two-dimensional phase transforming cellular materials. <i>Scientific Reports</i> , 2019, 9, 12581.	1.6	24
17	In situ Wear Study Reveals Role of Microstructure on Self-Sharpening Mechanism in Sea Urchin Teeth. <i>Matter</i> , 2019, 1, 1246-1261.	5.0	15
18	Computational characterization of the wave propagation behavior of multi-stable periodic cellular materials. <i>Extreme Mechanics Letters</i> , 2019, 33, 100565.	2.0	24

#	ARTICLE	IF	CITATIONS
19	Mechanics of Chiral Honeycomb Architectures With Phase Transformations. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	1.1	10
20	The Stomatopod Telson: Convergent Evolution in the Development of a Biological Shield. Advanced Functional Materials, 2019, 29, 1902238.	7.8	23
21	A Natural Stress Deflector on the Head? Mechanical and Functional Evaluation of the Woodpecker Skull Bones. Advanced Theory and Simulations, 2019, 2, 1800152.	1.3	17
22	Effect of fine and coarse recycled concrete aggregate on the mechanical behavior of precast reinforced beams: Comparison of FE simulations, theoretical, and experimental results on real scale beams. Construction and Building Materials, 2018, 191, 1109-1119.	3.2	28
23	Revealing the Mechanics of Helicoidal Composites through Additive Manufacturing and Beetle Developmental Stage Analysis. Advanced Functional Materials, 2018, 28, 1803073.	7.8	55
24	Short Research Advanced Project: Development of strategies for automatic facial feature extraction and emotion recognition. , 2017, , .		3
25	Self-assembly of coherently dynamic, auxetic, two-dimensional protein crystals. Nature, 2016, 533, 369-373.	13.7	255
26	Programmable materials based on periodic cellular solids. Part II: Numerical analysis. International Journal of Solids and Structures, 2016, 100-101, 505-522.	1.3	12
27	Programmable materials based on periodic cellular solids. Part I: Experiments. International Journal of Solids and Structures, 2016, 100-101, 485-504.	1.3	49
28	Phase transforming cellular materials. Extreme Mechanics Letters, 2015, 4, 52-60.	2.0	251
29	Design of computer experiments applied to modeling of compliant mechanisms for real-time control. Engineering With Computers, 2013, 29, 329-343.	3.5	1
30	Arbitrary-Order Sensitivity Analysis in Phononic Metamaterials Using the Multicomplex Taylor Series Expansion Method Coupled with Bloch's Theorem. Journal of Applied Mechanics, Transactions ASME, 0, , 1-43.	1.1	2
31	Transient thermomechanical sensitivity analysis using a complex-variable finite element method. Journal of Thermal Stresses, 0, , 1-34.	1.1	0