Osama R. Bilal

List of Publications by Year
in descending order

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23 papers	2,139 citations	567281 15 h-index	713466 21 g-index
24 all docs	24 docs citations	24 times ranked	2148 citing authors

#	Article	IF	Citations
1	Programmability of ultrathin metasurfaces through curvature. Extreme Mechanics Letters, 2022, 52, 101620.	4.1	6
2	Harnessing Reprogrammable Phase Transitions to Control the Propagation of Sound Waves. Physical Review Applied, 2022, 17, .	3.8	5
3	Experimental realization of phonon demultiplexing in three-dimensions. Applied Physics Letters, 2021, 118, .	3.3	8
4	Classification of emerging patterns in self-assembled two-dimensional magnetic lattices. Physical Review E, 2021, 104, 044902.	2.1	5
5	Exploiting localized transition waves to tune sound propagation in soft materials. Physical Review B, 2021, 104, .	3.2	10
6	A Flexible Spiralingâ€Metasurface as a Versatile Haptic Interface. Advanced Materials Technologies, 2020, 5, 2000181.	5.8	19
7	Autonomous Deployment of a Solar Panel Using Elastic Origami and Distributed Shape-Memory-Polymer Actuators. Physical Review Applied, 2019, 11, .	3.8	90
8	Observation of a phononic quadrupole topological insulator. Nature, 2018, 555, 342-345.	27.8	684
9	Architected Lattices for Simultaneous Broadband Attenuation of Airborne Sound and Mechanical Vibrations in All Directions. Physical Review Applied, 2018, 10, .	3.8	53
10	Spiral-Based Phononic Plates: From Wave Beaming to Topological Insulators. Physical Review Letters, 2018, 120, 205501.	7.8	82
11	Harnessing bistability for directional propulsion of soft, untethered robots. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5698-5702.	7.1	276
12	Bistable metamaterial for switching and cascading elastic vibrations. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4603-4606.	7.1	144
13	Intrinsically Polar Elastic Metamaterials. Advanced Materials, 2017, 29, 1700540.	21.0	54
14	Reprogrammable Phononic Metasurfaces. Advanced Materials, 2017, 29, 1700628.	21.0	100
15	Harnessing Photochemical Shrinkage in Direct Laser Writing for Shape Morphing of Polymer Sheets. Advanced Materials, 2017, 29, 1703024.	21.0	66
16	Observation of trampoline phenomena in 3D-printed metamaterial plates. Extreme Mechanics Letters, 2017, 15, 103-107.	4.1	49
17	Inertial amplification of continuous structures: Large band gaps from small masses. Journal of Applied Physics, 2016, 119, .	2.5	126
18	Flow stabilization by subsurface phonons. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140928.	2.1	35

#	Article	IF	Citations
19	Trampoline metamaterial: Local resonance enhancement by springboards. Applied Physics Letters, 2013, 103, 111901.	3.3	144
20	Topologically evolved photonic crystals: breaking the world record in band gap size. , 2012, , .		3
21	Topologically evolved phononic material: breaking the world record in band gap size. , 2012, , .		10
22	Optimal Design of Periodic Timoshenko Beams using Genetic Algorithms. , 2011, , .		2
23	Ultrawide phononic band gap for combined in-plane and out-of-plane waves. Physical Review E, 2011, 84, 065701.	2.1	166