

Mohamed Farhat

List of Publications by Year in descending order

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Version: 2024-02-01

105
papers

4,140
citations

126907

33
h-index

114465

63
g-index

109
all docs

109
docs citations

109
times ranked

3112
citing authors

#	ARTICLE	IF	CITATIONS
1	A perfect absorber made of a graphene micro-ribbon metamaterial. Optics Express, 2012, 20, 28017.	3.4	507
2	Ultrabroadband Elastic Cloaking in Thin Plates. Physical Review Letters, 2009, 103, 024301.	7.8	384
3	Broadband Cylindrical Acoustic Cloak for Linear Surface Waves in a Fluid. Physical Review Letters, 2008, 101, 134501.	7.8	314
4	An ultra-broadband multilayered graphene absorber. Optics Express, 2013, 21, 29938.	3.4	254
5	A dynamically reconfigurable Fano metamaterial through graphene tuning for switching and sensing applications. Scientific Reports, 2013, 3, 2105.	3.3	180
6	Cloaking bending waves propagating in thin elastic plates. Physical Review B, 2009, 79, .	3.2	126
7	Tunable graphene antennas for selective enhancement of THz-emission. Optics Express, 2013, 21, 3737.	3.4	104
8	Exciting Graphene Surface Plasmon Polaritons through Light and Sound Interplay. Physical Review Letters, 2013, 111, 237404.	7.8	103
9	A 3D tunable and multi-frequency graphene plasmonic cloak. Optics Express, 2013, 21, 12592.	3.4	83
10	Flat lens for pulse focusing of elastic waves in thin plates. Applied Physics Letters, 2013, 103, .	3.3	82
11	Bistable and Self-Tunable Negative-Index Metamaterial at Optical Frequencies. Physical Review Letters, 2011, 106, 105503.	7.8	77
12	A THz graphene metasurface for polarization selective virus sensing. Carbon, 2021, 176, 580-591.	10.3	74
13	Thermal invisibility based on scattering cancellation and mantle cloaking. Scientific Reports, 2015, 5, 9876.	3.3	72
14	Focussing bending waves via negative refraction in perforated thin plates. Applied Physics Letters, 2010, 96, .	3.3	71
15	Flatland plasmonics and nanophotonics based on graphene and beyond. Nanophotonics, 2017, 6, 1239-1262.	6.0	71
16	PT-symmetric metasurfaces: wave manipulation and sensing using singular points. New Journal of Physics, 2017, 19, 065002.	2.9	67
17	PT-Symmetric Absorber-Laser Enables Electromagnetic Sensors with Unprecedented Sensitivity. ACS Photonics, 2020, 7, 2080-2088.	6.6	60
18	Broadband cloaking of bending waves via homogenization of multiply perforated radially symmetric and isotropic thin elastic plates. Physical Review B, 2012, 85, .	3.2	58

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19	Synthesis and Optimization of Fractional-Order Elements Using a Genetic Algorithm. IEEE Access, 2019, 7, 80233-80246.	4.2	56
20	The colours of cloaks. Journal of Optics (United Kingdom), 2011, 13, 024014.	2.2	53
21	Graphene metascreen for designing compact infrared absorbers with enhanced bandwidth. Nanotechnology, 2015, 26, 164002.	2.6	52
22	Achieving invisibility over a finite range of frequencies. Optics Express, 2008, 16, 5656.	3.4	51
23	A self-assembled three-dimensional cloak in the visible. Scientific Reports, 2013, 3, 2328.	3.3	51
24	Deterministic and probabilistic deep learning models for inverse design of broadband acoustic cloak. Physical Review Research, 2021, 3, .	3.6	47
25	A homogenization route towards square cylindrical acoustic cloaks. New Journal of Physics, 2008, 10, 115030.	2.9	46
26	Cloaking dielectric spherical objects by a shell of metallic nanoparticles. Physical Review B, 2011, 83, .	3.2	46
27	An ultra-broadband single-component fractional-order capacitor using MoS ₂ -ferroelectric polymer composite. Applied Physics Letters, 2018, 113, .	3.3	46
28	Efficient, broadband and wide-angle hot-electron transduction using metal-semiconductor hyperbolic metamaterials. Nano Energy, 2016, 26, 371-381.	16.0	44
29	Mirror-backed Dark Alumina: A Nearly Perfect Absorber for Thermoelectronics and Thermophotovoltaics. Scientific Reports, 2016, 6, 19984.	3.3	44
30	Linear and Circular Dichroism in Graphene-Based Reflectors for Polarization Control. Physical Review Applied, 2020, 13, .	3.8	44
31	Acoustically induced transparency using Fano resonant periodic arrays. Journal of Applied Physics, 2015, 118, .	2.5	43
32	Infrared beam-steering using acoustically modulated surface plasmons over a graphene monolayer. Journal of Optics (United Kingdom), 2014, 16, 094008.	2.2	40
33	Scattering Cancellation-Based Cloaking for the Maxwell-Cattaneo Heat Waves. Physical Review Applied, 2019, 11, .	3.8	36
34	High directivity and confinement of flexural waves through ultra-refraction in thin perforated plates. Europhysics Letters, 2010, 91, 54003.	2.0	31
35	Molding acoustic, electromagnetic and water waves with a single cloak. Scientific Reports, 2015, 5, 10678.	3.3	31
36	Ferroelectric Fractional-Order Capacitors. ChemElectroChem, 2017, 4, 2807-2813.	3.4	31

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37	A nonlinear plasmonic resonator for three-state all-optical switching. <i>Optics Express</i> , 2014, 22, 6966.	3.4	30
38	All-angle-negative-refraction and ultra-refraction for liquid surface waves in 2D phononic crystals. <i>Journal of Computational and Applied Mathematics</i> , 2010, 234, 2011-2019.	2.0	29
39	Numerical analysis of three-dimensional acoustic cloaks and carpets. <i>Wave Motion</i> , 2011, 48, 483-496.	2.0	29
40	Analytical and numerical analysis of lensing effect for linear surface water waves through a square array of nearly touching rigid square cylinders. <i>Physical Review E</i> , 2008, 77, 046308.	2.1	27
41	Negative refraction, surface modes, and superlensing effect via homogenization near resonances for a finite array of split-ring resonators. <i>Physical Review E</i> , 2009, 80, 046309.	2.1	27
42	Acoustic scattering cancellation via ultrathin pseudo-surface. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	27
43	Platonic Scattering Cancellation for Bending Waves in a Thin Plate. <i>Scientific Reports</i> , 2014, 4, 4644.	3.3	27
44	A perfect Fresnel acoustic reflector implemented by a Fano-resonant metascreen. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	27
45	Towards fractional-order capacitors with broad tunable constant phase angles: multi-walled carbon nanotube-polymer composite as a case study. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 065602.	2.8	25
46	Resonant Beam Steering and Carpet Cloaking Using an Acoustic Transformational Metascreen. <i>Physical Review Applied</i> , 2018, 10, .	3.8	21
47	Self-dual singularity through lasing and antilasing in thin elastic plates. <i>Physical Review B</i> , 2021, 103, .	3.2	20
48	Scattering cancellation of the magnetic dipole field from macroscopic spheres. <i>Optics Express</i> , 2012, 20, 13896.	3.4	19
49	Frequency-selective surface acoustic invisibility for three-dimensional immersed objects. <i>Physical Review B</i> , 2012, 86, .	3.2	19
50	Tunability and switching of Fano and Lorentz resonances in <i>PTX</i> -symmetric electronic systems. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	19
51	Scattering cancellation technique for acoustic spinning objects. <i>Physical Review B</i> , 2020, 101, .	3.2	19
52	Enhanced Radio-Frequency Sensors Based on a Self-Dual Emitter-Absorber. <i>Physical Review Applied</i> , 2021, 15, .	3.8	18
53	Understanding the functionality of an array of invisibility cloaks. <i>Physical Review B</i> , 2011, 84, .	3.2	17
54	A Compact, Passive Frequency-Hopping Harmonic Sensor Based on a Microfluidic Reconfigurable Dual-Band Antenna. <i>IEEE Sensors Journal</i> , 2020, 20, 12495-12503.	4.7	16

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55	Metasurface supporting broadband circular dichroism for reflected and transmitted fields simultaneously. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 435106.	2.8	14
56	The influence of building interactions on seismic and elastic body waves. <i>EPJ Applied Metamaterials</i> , 2019, 6, 18.	1.5	13
57	Ultrarobust Wireless Interrogation for Sensors and Transducers: A Non-Hermitian Telemetry Technique. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-9.	4.7	13
58	Modulatable optical radiators and metasurfaces based on quantum nanoantennas. <i>Physical Review B</i> , 2015, 91, .	3.2	12
59	Cloaking through cancellation of diffusive wave scattering. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016, 472, 20160276.	2.1	12
60	Spectrometer-Free Graphene Plasmonics Based Refractive Index Sensor. <i>Sensors</i> , 2020, 20, 2347.	3.8	12
61	Plasmonically Enhanced Schottky Photovoltaic Devices. <i>Scientific Reports</i> , 2017, 7, 14253.	3.3	11
62	Non-Hermitian electromagnetic double-near-zero index medium in a two-dimensional photonic crystal. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	11
63	Localized surface plate modes via flexural Mie resonances. <i>Physical Review B</i> , 2017, 95, .	3.2	10
64	Polarization-State Modulation in Fano Resonant Graphene Metasurface Reflector. <i>Journal of Lightwave Technology</i> , 2021, 39, 7869-7875.	4.6	10
65	In-Vitro Demonstration of Ultra-Reliable, Wireless and Batteryless Implanted Intracranial Sensors Operated on Loci of Exceptional Points. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2022, 16, 287-295.	4.0	10
66	Density-near-zero using the acoustically induced transparency of a Fano acoustic resonator. <i>Europhysics Letters</i> , 2016, 116, 46004.	2.0	9
67	Two-dimensional materials-based radio frequency wireless communication and sensing systems for Internet-of-things applications. , 2020, , 29-57.		9
68	Finite elements modelling of scattering problems for flexural waves in thin plates: Application to elliptic invisibility cloaks, rotators and the mirage effect. <i>Journal of Computational Physics</i> , 2011, 230, 2237-2245.	3.8	8
69	Enhanced acoustic pressure sensors based on coherent perfect absorber-laser effect. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	8
70	Biharmonic split ring resonator metamaterial: Artificially dispersive effective density in thin periodically perforated plates. <i>Europhysics Letters</i> , 2014, 107, 44002.	2.0	7
71	Nanoantenna harmonic sensor: theoretical analysis of contactless detection of molecules with light. <i>Nanotechnology</i> , 2015, 26, 415201.	2.6	7
72	Cloaking and anamorphism for light and mass diffusion. <i>Journal of Optics (United Kingdom)</i> , 2017, 19, 103002.	2.2	6

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73	Generalized Theory of PT-Symmetric Radio-Frequency Systems With Divergent Exceptional Points. IEEE Transactions on Antennas and Propagation, 2022, 70, 9396-9405.	5.1	6
74	Localized acoustic surface modes. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	5
75	Generation of high-power terahertz radiation by nonlinear photon-assisted tunneling transport in plasmonic metamaterials. Journal of Optics (United Kingdom), 2017, 19, 124012.	2.2	5
76	Scattering theory and cancellation of gravity-flexural waves of floating plates. Physical Review B, 2020, 101, .	3.2	5
77	Cascaded PT-symmetric artificial sheets: multimodal manipulation of self-dual emitter-absorber singularities, and unidirectional and bidirectional reflectionless transparencies. Journal Physics D: Applied Physics, 2022, 55, 085301.	2.8	5
78	Parity-Time Symmetry and Exceptional Points for Flexural-Gravity Waves in Buoyant Thin-Plates. Crystals, 2020, 10, 1039.	2.2	3
79	Numerical modeling for terahertz testing of non-metallic pipes. AIP Advances, 2020, 10, .	1.3	3
80	Simplified Modal-Cancellation Approach for Substrate-Integrated-Waveguide Narrow-Band Filter Design. Electronics (Switzerland), 2020, 9, 962.	3.1	3
81	Bifacial Schottky-junction Plasmonic-Based Solar Cell. Energy Technology, 2020, 8, 1901280.	3.8	3
82	Spacetime modulation in floating thin elastic plates. Physical Review B, 2021, 104, .	3.2	3
83	Transverse acoustic spin and torque from pure spinning of objects. Physical Review B, 2021, 104, .	3.2	3
84	Perfect lenses and corners for flexural waves. Physica B: Condensed Matter, 2010, 405, 2947-2949.	2.7	2
85	Nanoprojection Lithography Using Self-Assembled Interference Modules for Manufacturing Plasmonic Gratings. IEEE Photonics Technology Letters, 2012, 24, 1273-1275.	2.5	2
86	Multi-bi- and tri-stability using nonlinear plasmonic Fano resonators. , 2013, , .		2
87	Acoustic Fano resonators. , 2014, , .		2
88	Frequency domain transformation optics for diffusive photon density wavesâ€™™ cloaking. Optics Express, 2018, 26, 24792.	3.4	2
89	A dynamically-tunable graphene-based fano metasurface. , 2013, , .		1
90	Subwavelength sound screening by coupling space-coiled Fabry-Perot resonators. Europhysics Letters, 2017, 119, 36001.	2.0	1

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91	Effect of Time-Delayed Feedback on the Interaction of a Dimer System with its Environment. Scientific Reports, 2017, 7, 15468.	3.3	1
92	Graphene nanoelectromagnetics: From radio frequency, terahertz to mid-infrared. , 2019, , 31-59.		1
93	On Coding and Decoding Reconfigurable Radiation Pattern Modulation Symbols. Electronics (Switzerland), 2021, 10, 614.	3.1	1
94	Reply to "Comment on "Scattering Cancellation-Based Cloaking for the Maxwell-Cattaneo Heat Waves" Physical Review Applied, 2021, 15, .	3.8	1
95	Cloaking dielectric spheres by a shell of plasmonic and polaritonic nanoparticles. Proceedings of SPIE, 2012, , .	0.8	0
96	Generation of Graphene Surface Plasmons and Their Applications in Beam Steering. , 2015, , .		0
97	PT-symmetric Terahertz Sensors Using Optically Pumped Graphene Metasurfaces. , 2016, , .		0
98	Chapter 8 Experiments on Cloaking for Surface Water Waves. , 2016, , 287-312.		0
99	Metallic nanoparticles in dielectrics: A comparative study. , 2017, , .		0
100	Plasmonically Enhanced Schottky Solar Cell. , 2018, , .		0
101	Artificial Surfaces and Media for Electromagnetic Absorption and Interference Shielding. , 0, , .		0
102	On the Isotropic Magnetic Response of Fabricated Core-Shell Clusters and its Ability to Cloak. , 2011, , .		0
103	Quantum Nanoantennas for Making Nonlinear and Self-Modulatable Metasurface. , 2015, , .		0
104	Integrated Hyperbolic Metamaterial Devices for Efficient Rectification of Infrared Radiation. , 2016, , .		0
105	Ultrasensitive optical sensing based on non-Hermitian metasurfaces. , 2019, , .		0