

Dimitrios L Sounas

List of Publications by Year in descending order

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117
papers

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76294

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83
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117
all docs

117
docs citations

117
times ranked

4470
citing authors

#	ARTICLE	IF	CITATIONS
1	Stability bounds on superluminal propagation in active structures. Nature Communications, 2022, 13, 1115.	5.8	1
2	Scatterers in the Rx Near Field for RF Energy Harvesting Efficiency Enhancement. Energies, 2022, 15, 2109.	1.6	3
3	Static-to-dynamic field conversion with time-varying media. Physical Review B, 2022, 105, .	1.1	5
4	Analogue computing with metamaterials. Nature Reviews Materials, 2021, 6, 207-225.	23.8	193
5	Angular-Momentum Biased Circulator With Locally Generated Modulation. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 551-565.	2.9	3
6	Free-Space Nonreciprocal Transmission Based on Nonlinear Coupled Fano Metasurfaces. Photonics, 2021, 8, 139.	0.9	14
7	Ultra-Wideband Switched-Capacitor Delays and Circulators Theory and Implementation. IEEE Journal of Solid-State Circuits, 2021, 56, 1412-1424.	3.5	10
8	Dynamic wireless power transfer in the presence of reflecting walls. Analog Integrated Circuits and Signal Processing, 2021, 108, 447-453.	0.9	3
9	Topology-Optimized Metamaterials for Optical Signal Compression. , 2021, , .		0
10	Phase-Induced Frequency Conversion and Doppler Effect With Time-Modulated Metasurfaces. IEEE Transactions on Antennas and Propagation, 2020, 68, 1607-1617.	3.1	135
11	Microwave Nonreciprocity. Proceedings of the IEEE, 2020, 108, 1728-1758.	16.4	62
12	Angular-Momentum Biased Circulator with a Common-Differential Mode Topology for RF and Modulation Isolation. , 2020, , .		1
13	Parity-time Symmetry Based on Time Modulation. Physical Review Applied, 2020, 14, .	1.5	22
14	Role of Synchronization in Magnetless Nonreciprocal Devices Based on Commutated Transmission Lines. Physical Review Applied, 2020, 13, .	1.5	1
15	Dual-Polarization Analog 2D Image Processing with Nonlocal Metasurfaces. ACS Photonics, 2020, 7, 1799-1805.	3.2	59
16	Virtual perfect absorption through modulation of the radiative decay rate. Physical Review B, 2020, 101, .	1.1	14
17	Electromagnetic Isolation Induced by Time-Varying Metasurfaces: Nonreciprocal Bragg Grating. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 1886-1890.	2.4	31
18	Discrete space optical signal processing. Optica, 2020, 7, 1325.	4.8	12

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19	Nonreciprocal cavities and the time-bandwidth limit: reply. <i>Optica</i> , 2020, 7, 1102.	4.8	4
20	Trapping electromagnetic signals in time modulated and non-linear cavities. , 2020, , .		0
21	Nonreciprocal acoustic propagation and leaky-wave radiation in a waveguide with flow. <i>Journal of the Acoustical Society of America</i> , 2019, 146, 802-809.	0.5	26
22	Nonreciprocal Willis Coupling in Zero-Index Moving Media. <i>Physical Review Letters</i> , 2019, 123, 064301.	2.9	42
23	CMOS Integrated Magnetless Circulators Based on Spatiotemporal Modulation Angular-Momentum Biasing. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2019, 67, 2649-2662.	2.9	41
24	Quasielectrostatic Wave Propagation Beyond the Delay-Bandwidth Limit in Switched Networks. <i>Physical Review X</i> , 2019, 9, .	2.8	21
25	Broadband delay lines and nonreciprocal resonances in unidirectional waveguides. <i>Physical Review B</i> , 2019, 100, .	1.1	15
26	Can a Nonradiating Mode Be Externally Excited? Nonscattering States versus Embedded Eigenstates. <i>ACS Photonics</i> , 2019, 6, 3108-3114.	3.2	56
27	High-Index Dielectric Metasurfaces Performing Mathematical Operations. <i>Nano Letters</i> , 2019, 19, 8418-8423.	4.5	143
28	Non-Reciprocal Graphene Gratings Based on Spatiotemporal Modulation. , 2019, , .		0
29	Radio Frequency Angular Momentum Biased Quasi-LTI Nonreciprocal Acoustic Filters. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2019, 66, 1814-1825.	1.7	21
30	Magnet-Free Circulator Based on Spatiotemporal Modulation of Photonic Crystal Defect Cavities. <i>ACS Photonics</i> , 2019, 6, 2056-2066.	3.2	30
31	Nonlinearity-based circulator. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	19
32	Radio Frequency Magnet-Free Circulators Based on Spatiotemporal Modulation of Surface Acoustic Wave Filters. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2019, 67, 4773-4782.	2.9	22
33	Frequency-shifted reflection achieved through time-varying metasurfaces. , 2019, , .		2
34	Highly-Linear Magnet-Free Microelectromechanical Circulators. <i>Journal of Microelectromechanical Systems</i> , 2019, 28, 933-940.	1.7	17
35	Nonreciprocal cavities and the time-bandwidth limit. <i>Optica</i> , 2019, 6, 104.	4.8	49
36	Optically driven effective Faraday effect in instantaneous nonlinear media. <i>Optica</i> , 2019, 6, 1152.	4.8	16

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37	Achieving Full-Duplex Communication: Magnetless Parametric Circulators for Full-Duplex Communication Systems. IEEE Microwave Magazine, 2018, 19, 84-90.	0.7	29
38	Broadband passive isolators based on coupled nonlinear resonances. Nature Electronics, 2018, 1, 113-119.	13.1	160
39	Magnet-Less Circulators Based on Spatiotemporal Modulation of Bandstop Filters in a Delta Topology. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 911-926.	2.9	90
40	Spectrum Control through Discrete Frequency Diffraction in the Presence of Photonic Gauge Potentials. Physical Review Letters, 2018, 120, 133901.	2.9	92
41	Fundamental bounds on the operation of Fano nonlinear isolators. Physical Review B, 2018, 97, .	1.1	75
42	A Quasi-LTI Frequency-Selective SAW Circulator. , 2018, , .		9
43	Nonlocal Metasurfaces Performing Analog Mathematical Operations. , 2018, , .		0
44	Broadband Cyclic-Symmetric Magnetless Circulators and Theoretical Bounds on Their Bandwidth. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 5472-5481.	2.9	34
45	Active Microwave Cloaking Using Parity-Time-Symmetric Satellites. Physical Review Applied, 2018, 10, .	1.5	11
46	Optical isolation by hot atoms. Nature Photonics, 2018, 12, 720-721.	15.6	0
47	Electromagnetic Nonreciprocity. Physical Review Applied, 2018, 10, .	1.5	366
48	Nonreciprocal Components Based on Switched Transmission Lines. IEEE Transactions on Microwave Theory and Techniques, 2018, , 1-20.	2.9	21
49	Nonlocal Metasurfaces for Optical Signal Processing. Physical Review Letters, 2018, 121, 173004.	2.9	250
50	Nonreciprocity in Antenna Radiation Induced by Space-Time Varying Metamaterial Cloaks. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 1968-1972.	2.4	55
51	Angular-Momentum Biased Circulators and Their Power Consumption. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 1963-1967.	2.4	13
52	Low-Loss Broadband Magnetless Circulators for Full-Duplex Radios. , 2018, , .		12
53	Tunable Orbital Angular Momentum Radiation from Angular-Momentum-Biased Microcavities. Physical Review Letters, 2018, 121, 103901.	2.9	25
54	Metagratings: A novel paradigm for efficient wavefront control. , 2018, , .		0

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55	Pseudo-Linear Time-Invariant Magnetless Circulators Based on Differential Spatiotemporal Modulation of Resonant Junctions. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 2731-2745.	2.9	62
56	Nonreciprocity Based on Nonlinear Resonances. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 1958-1962.	2.4	31
57	Magnetic-free radio frequency circulator based on spatiotemporal commutation of MEMS resonators. , 2018, , .		38
58	Recent advances in spatiotemporally-modulated (STM) magnetless circulators. , 2018, , .		0
59	The time-bandwidth limit in optical nanostructures and its relation to nonreciprocity. , 2018, , .		0
60	Maximum Willis Coupling in Acoustic Scatterers. Physical Review Letters, 2018, 120, 254301.	2.9	101
61	Static non-reciprocity in mechanical metamaterials. Nature, 2017, 542, 461-464.	13.7	237
62	Non-reciprocal wave manipulation with non-linear metasurfaces. , 2017, , .		0
63	Synchronized conductivity modulation to realize broadband lossless magnetic-free non-reciprocity. Nature Communications, 2017, 8, 795.	5.8	95
64	Differential magnetless circulator using modulated bandstop filters. , 2017, , .		23
65	Metagratings: Beyond the Limits of Graded Metasurfaces for Wave Front Control. Physical Review Letters, 2017, 119, 067404.	2.9	380
66	Non-reciprocal photonics based on time modulation. Nature Photonics, 2017, 11, 774-783.	15.6	611
67	Doppler cloak restores invisibility to objects in relativistic motion. Physical Review B, 2017, 95, .	1.1	83
68	Time-Reversal Symmetry Bounds on the Electromagnetic Response of Asymmetric Structures. Physical Review Letters, 2017, 118, 154302.	2.9	54
69	Electromagnetic devices for next-generation wireless communication systems. , 2017, , .		0
70	Non-Reciprocal electromagnetics in time-varying systems. , 2017, , .		0
71	Composite Floquet scattering matrix for the analysis of time-modulated systems. , 2017, , .		4
72	Magnetless circulators for electromagnetic and acoustic waves. , 2016, , .		1

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73	Color Separation through Spectrally-Selective Optical Funneling. ACS Photonics, 2016, 3, 620-626.	3.2	6
74	Parity-Time Symmetry in Acoustics: Theory, Devices, and Potential Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 121-129.	1.9	45
75	Generalized antireflection coatings for complex bulk metamaterials. Physical Review B, 2016, 93, .	1.1	5
76	Ultrathin active cloak with balanced loss and gain. , 2016, , .		2
77	Non-Linear isolators: Fundamental bounds and optimal designs. , 2016, , .		0
78	Parity-time symmetry for cloaking and negative refraction. , 2016, , .		0
79	Magnetless Microwave Circulators Based on Spatiotemporally Modulated Rings of Coupled Resonators. IEEE Transactions on Microwave Theory and Techniques, 2016, , 1-17.	2.9	134
80	Non-reciprocal space-time gratings. , 2015, , .		0
81	An invisible acoustic sensor based on parity-time symmetry. Nature Communications, 2015, 6, 5905.	5.8	549
82	Nonreciprocal Horn Antennas Using Angular Momentum-Biased Metamaterial Inclusions. IEEE Transactions on Antennas and Propagation, 2015, 63, 5593-5600.	3.1	51
83	Angular-momentum biasing: A new paradigm for linear, magnetic-free, non-reciprocal devices. , 2014, , .		3
84	Nonreciprocity, nonlinearity and parity-time symmetry in optical metasurfaces and metamaterials. , 2014, , .		0
85	Unidirectional invisibility with 3D parity-time symmetric structures. , 2014, , .		0
86	Angular-Momentum-Biased Nanorings To Realize Magnetic-Free Integrated Optical Isolation. ACS Photonics, 2014, 1, 198-204.	3.2	133
87	Sound Isolation and Giant Linear Nonreciprocity in a Compact Acoustic Circulator. Science, 2014, 343, 516-519.	6.0	820
88	Magnetic-free non-reciprocity and isolation based on parametrically modulated coupled-resonator loops. Nature Physics, 2014, 10, 923-927.	6.5	511
89	Extinction symmetry for reciprocal objects and its implications on cloaking and scattering manipulation. Optics Letters, 2014, 39, 4053.	1.7	24
90	Negative Refraction and Planar Focusing Based on Parity-Time Symmetric Metasurfaces. Physical Review Letters, 2014, 113, 023903.	2.9	212

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91	All-pass dispersion synthesis using microwave C-sections. International Journal of Circuit Theory and Applications, 2014, 42, 1228-1245.	1.3	26
92	Non-reciprocal faraday rotation in graphene: Just a unique phenomenon or even more?. , 2013, , .		0
93	Giant non-reciprocity at the subwavelength scale using angular momentum-biased metamaterials. Nature Communications, 2013, 4, 2407.	5.8	358
94	Terahertz magnetoplasmon energy concentration and splitting in Graphene PN Junctions. Optics Express, 2013, 21, 25356.	1.7	25
95	Synthesis of Cross-Coupled Reduced-Order Dispersive Delay Structures (DDSs) With Arbitrary Group Delay and Controlled Magnitude. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 1043-1052.	2.9	52
96	Electromagnetic Modeling of a Magnetless Nonreciprocal Gyrotropic Metasurface. IEEE Transactions on Antennas and Propagation, 2013, 61, 221-231.	3.1	64
97	Magnetless Nonreciprocal Metamaterial (MNM) Technology: Application to Microwave Components. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 1030-1042.	2.9	131
98	Non-reciprocal magnetoplasmon graphene coupler. Optics Express, 2013, 21, 11248.	1.7	49
99	Graphene for highly tunable non-reciprocal electromagnetic devices. , 2012, , .		2
100	Network modeling of a magnetically biased graphene sheet in an arbitrary cylindrical waveguide. , 2012, , .		0
101	New opportunities in electromagnetics with nanotechnologies. , 2012, , .		0
102	CRLH C-Section Dispersive Delay Structures With Enhanced Group-Delay Swing for Higher Analog Signal Processing Resolution. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 3939-3949.	2.9	29
103	Optically Transparent and Flexible Graphene Reciprocal and Nonreciprocal Microwave Planar Components. IEEE Microwave and Wireless Components Letters, 2012, 22, 360-362.	2.0	24
104	Surface Susceptibility Bianisotropic Matrix Model for Periodic Metasurfaces of Uniaxially Mono-Anisotropic Scatterers Under Oblique TE-Wave Incidence. IEEE Transactions on Antennas and Propagation, 2012, 60, 5753-5767.	3.1	34
105	Theoretical Investigation of Traveling-Wave Amplification in Metallic Carbon Nanotubes Biased by a DC Field. IEEE Nanotechnology Magazine, 2012, 11, 463-471.	1.1	8
106	Switchable Magnetless Nonreciprocal Metamaterial (MNM) and its Application to a Switchable Faraday Rotation Metasurface. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 1454-1457.	2.4	26
107	Gyrotropy and Nonreciprocity of Graphene for Microwave Applications. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 901-914.	2.9	214
108	Gyrotropy and non-reciprocity of graphene for microwave applications. , 2011, , .		12

#	ARTICLE	IF	CITATIONS
109	Field displacement in a traveling-wave ring resonator meta-structure. , 2011, , .		7
110	Field displacement in a graphene loaded waveguide. , 2011, , .		0
111	Artificial Faraday rotation using a ring metamaterial structure without static magnetic field. Applied Physics Letters, 2011, 99, .	1.5	175
112	Graphene-based non-reciprocal spatial isolator. , 2011, , .		15
113	Edge surface modes in magnetically biased chemically doped graphene strips. Applied Physics Letters, 2011, 99, .	1.5	41
114	Nonreciprocal Magnetless CRLH Leaky-Wave Antenna Based on a Ring Metamaterial Structure. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 1551-1554.	2.4	45
115	Stencil-Optimized Time-Domain Algorithms for Compact Circular Patch Antennas With Anisotropic Metamaterial Substrates. IEEE Transactions on Magnetics, 2009, 45, 1368-1371.	1.2	5
116	A Wideband ADI-FDTD Algorithm for the Design of Double Negative Metamaterial-Based Waveguides and Antenna Substrates. IEEE Transactions on Magnetics, 2007, 43, 1329-1332.	1.2	16
117	Focusing Efficiency Analysis and Performance Optimization of Arbitrarily Sized DNG Metamaterial Slabs With Losses. IEEE Transactions on Microwave Theory and Techniques, 2006, 54, 4111-4121.	2.9	8