Yan Shi

List of Publications by Year
in descending order

133 papers	2,213 citations	257450 24 h-index	254184 43 g-index
133 all docs	133 docs citations	133 times ranked	1486 citing authors

#	Article	IF	Citations
1	Design, fabrication, and measurement of reflective metasurface for orbital angular momentum vortex wave in radio frequency domain. Applied Physics Letters, 2016, 108, .	3.3	258
2	Generating multiple orbital angular momentum vortex beams using a metasurface in radio frequency domain. Applied Physics Letters, 2016, 108, .	3.3	243
3	A Wideband 1Âbit 12 Ã— 12 Reconfigurable Beam-Scanning Reflectarray: Design, Fabrication, and Measurement. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 1268-1272.	4.0	121
4	A Time-Domain Volume Integral Equation and Its Marching-On-in-Degree Solution for Analysis of Dispersive Dielectric Objects. IEEE Transactions on Antennas and Propagation, 2011, 59, 969-978.	5.1	101
5	Broadband tunable graphene-based metamaterial absorber. Optical Materials Express, 2016, 6, 3036.	3.0	65
6	Generation of Wideband Tunable Orbital Angular Momentum Vortex Waves Using Graphene Metamaterial Reflectarray. IEEE Access, 2018, 6, 5341-5347.	4.2	53
7	1-bit digital orbital angular momentum vortex beam generator based on a coding reflective metasurface. Optical Materials Express, 2018, 8, 3470.	3.0	51
8	Characteristic Mode Cancellation Method and Its Application for Antenna RCS Reduction. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 1784-1788.	4.0	46
9	A Wideband Circularly Polarized Magnetoelectric Dipole Antenna. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 1647-1650.	4.0	44
10	Design, Measurement and Analysis of Near-Field Focusing Reflective Metasurface for Dual-Polarization and Multi-Focus Wireless Power Transfer. IEEE Access, 2019, 7, 110387-110399.	4.2	44
11	Frequency-Domain and Spatial-Domain Reconfigurable Metasurface. ACS Applied Materials & Interfaces, 2020, 12, 23554-23564.	8.0	44
12	A design of ultra-broadband metamaterial absorber. Waves in Random and Complex Media, 2017, 27, 381-391.	2.7	38
13	A Retrieval Method of Effective Electromagnetic Parameters for Inhomogeneous Metamaterials. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 1160-1178.	4.6	37
14	A Simple Tri-Polarization Reconfigurable Magneto-Electric Dipole Antenna. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 291-294.	4.0	36
15	Polarization conversion metasurface design based on characteristic mode rotation and its application into wideband and miniature antennas with a low radar cross section. Optics Express, 2021, 29, 6794.	3.4	35
16	Interior Penalty Discontinuous Galerkin Time-Domain Method Based on Wave Equation for 3-D Electromagnetic Modeling. IEEE Transactions on Antennas and Propagation, 2017, 65, 7174-7184.	5.1	34
17	An Etched Planar Metasurface Half Maxwell Fish-Eye Lens Antenna. IEEE Transactions on Antennas and Propagation, 2015, 63, 3742-3747.	5.1	33
18	Millimeter-Wave Imaging Using 1-Bit Programmable Metasurface: Simulation Model, Design, and Experiment. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2020, 10, 52-61.	3.6	33

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19	Discontinuous Galerkin Time-Domain Method Based on Marching-on-in-Degree Scheme. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 250-253.	4.0	28
20	Traveling-Wave Series-Fed Patch Array Antenna Using Novel Reflection-Canceling Elements for Flexible Beam. IEEE Access, 2019, 7, 111466-111476.	4.2	28
21	A Pattern Reconfigurable MIMO Antenna Design Using Characteristic Modes. IEEE Access, 2018, 6, 43526-43534.	4.2	27
22	An Improved Vector Wave Equation-Based Discontinuous Galerkin Time Domain Method and Its Hybridization With Maxwellâ€™s Equation-Based Discontinuous Galerkin Time Domain Method. IEEE Transactions on Antennas and Propagation, 2018, 66, 6170-6178.	5.1	26
23	A Low-Storage Discontinuous Galerkin Time-Domain Method. IEEE Microwave and Wireless Components Letters, 2017, 27, 1-3.	3.2	25
24	Wave Equation-Based Discontinuous Galerkin Time Domain Method for Co-Simulation of Electromagnetics-Circuit Systems. IEEE Transactions on Antennas and Propagation, 2020, 68, 3026-3036.	5.1	25
25	Graphene-based metamaterial transmitarray antenna design for the generation of tunable orbital angular momentum vortex electromagnetic waves. Optical Materials Express, 2019, 9, 3709.	3.0	25
26	Broadband Transparent Absorber Based on Indium Tin Oxide-Polyethylene Terephthalate Film. IEEE Access, 2019, 7, 137848-137855.	4.2	24
27	Multifunctional Scattering Antenna Array Design for Orbital Angular Momentum Vortex Wave and RCS Reduction. IEEE Access, 2020, 8, 109289-109296.	4.2	24
28	An electromagnetic parameters extraction method for metamaterials based on phase unwrapping technique. Waves in Random and Complex Media, 2016, 26, 417-433.	2.7	23
29	An improved NRW method to extract electromagnetic parameters of metamaterials. Microwave and Optical Technology Letters, 2016, 58, 647-652.	1.4	22
30	Substrate Integrated Magnetoâ€"Electric Dipole for UWB Application. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 948-951.	4.0	22
31	Wideband MIMO handset antenna design based on theory of characteristic modes. International Journal of RF and Microwave Computer-Aided Engineering, 2018, 28, e21217.	1.2	22
32	A Characteristic-Mode-Based Polarization-Reconfigurable Antenna and its Array. IEEE Access, 2018, 6, 64587-64595.	4.2	22
33	Optimal illusion and invisibility of multilayered anisotropic cylinders and spheres. Optics Express, 2016, 24, 23333.	3.4	21
34	Analysis of Graphene-Based Devices Using Wave Equation Based Discontinuous Galerkin Time-Domain Method. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 2169-2173.	4.0	21
35	A Magnetoelectric Dipole Antenna With Beamwidth Reconfiguration. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 621-625.	4.0	21
36	Three-Dimensional Complementary Invisibility Cloak With Arbitrary Shapes. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 1550-1553.	4.0	20

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37	Design of Low-RCS Antenna Using Antenna Array. IEEE Transactions on Antennas and Propagation, 2019, 67, 6484-6493.	5.1	20
38	GPU-Accelerated Hybrid Discontinuous Galerkin Time Domain Algorithm With Universal Matrices and Local Time Stepping Method. IEEE Transactions on Antennas and Propagation, 2020, 68, 4738-4752.	5.1	19
39	Multilevel Green's function interpolation method for analysis of 3-D frequency selective structures using volume/surface integral equation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2010, 27, 308.	1.5	18
40	Cloaking design for arbitrarily shape objects based on characteristic mode method. Optics Express, 2017, 25, 32263.	3.4	18
41	A laguerreâ€based timeâ€domain discontinuous Galerkin finite elementâ€boundary integral method. Microwave and Optical Technology Letters, 2016, 58, 2774-2780.	1.4	17
42	Bifunctional arbitrarily-shaped cloak for thermal and electric manipulations. Optical Materials Express, 2018, 8, 2600.	3.0	17
43	Two Dimensional Multidomain Pseudospectral Time-Domain Algorithm Based on Alternating-Direction Implicit Method. IEEE Transactions on Antennas and Propagation, 2006, 54, 1207-1214.	5.1	16
44	Perfectly matched layer absorbing boundary condition for truncating the boundary of the left-handed medium. Microwave and Optical Technology Letters, 2006, 48, 57-63.	1.4	14
45	A Higher-Order NystrÃ¶m Scheme for a Marching-On-in-Degree Solution of the Magnetic Field Integral Equation. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 1059-1062.	4.0	14
46	A new <scp>L</scp>aguerreâ€based discontinuous <scp>G</scp>alerkin timeâ€domain method. Microwave and Optical Technology Letters, 2017, 59, 1499-1503.	1.4	14
47	A Mode Reconfigurable Orbital Angular Momentum Water Antenna. IEEE Access, 2020, 8, 89152-89160.	4.2	14
48	Filtering Antenna Synthesis Based on Characteristic Mode Theory. IEEE Transactions on Antennas and Propagation, 2022, 70, 3308-3319.	5.1	14
49	Comparison of Interpolating Functions and Interpolating Points in Full-Wave Multilevel Green's Function Interpolation Method. IEEE Transactions on Antennas and Propagation, 2010, 58, 2691-2699.	5.1	13
50	Marchingâ€onâ€inâ€degree solution of volume integral equations for analysis of transient electromagnetic scattering by inhomogeneous dielectric bodies with conduction loss. Microwave and Optical Technology Letters, 2011, 53, 1104-1109.	1.4	13
51	A Minimized Invisibility Complementary Cloak With a Composite Shape. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 1800-1803.	4.0	12
52	Quadâ€element multiâ€band antenna array in the smart mobile phone for LTE MIMO operations. Microwave and Optical Technology Letters, 2016, 58, 2619-2626.	1.4	12
53	Advanced Parallelism of DGTD Method With Local Time Stepping Based on Novel MPI + MPI Unified Parallel Algorithm. IEEE Transactions on Antennas and Propagation, 2022, 70, 3916-3921.	5.1	11
54	The finite-volume time-domain algorithm using least square method in solving Maxwellâ€™s equations. Journal of Computational Physics, 2007, 226, 1444-1457.	3.8	10

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55	An OpenMP Parallelized Multilevel Green's Function Interpolation Method Accelerated by Fast Fourier Transform Technique. IEEE Transactions on Antennas and Propagation, 2012, 60, 3305-3313.	5.1	10
56	Design of broadband leaky‐wave antenna based on permeability‐negative transmission line. Microwave and Optical Technology Letters, 2018, 60, 699-704.	1.4	10
57	Penalty Factor Threshold and Time Step Bound Estimations for Discontinuous Galerkin Time-Domain Method Based on Helmholtz Equation. IEEE Transactions on Antennas and Propagation, 2020, 68, 7494-7506.	5.1	10
58	Multidomain Pseudospectral Time Domain Algorithm Using a Symplectic Integrator. IEEE Transactions on Antennas and Propagation, 2007, 55, 433-439.	5.1	9
59	Achieving illusion and invisibility of inhomogeneous cylinders and spheres. Journal of Optics (United) Tj ETQq1 1 0.784314 rgBT /Over	2.2	9
60	An Archimedean Spiral Antenna for Generation of Tunable Angular Momentum Wave. IEEE Access, 2021, 9, 63122-63130.	4.2	8
61	Dual Zeroth-Order Resonant USB Dongle Antennas for 4G MIMO Wireless Communications. International Journal of Antennas and Propagation, 2015, 2015, 1-8.	1.2	7
62	An Efficient Single-Source Integral Equation Solution to EM Scattering From a Coated Conductor. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 547-550.	4.0	7
63	Wideband composite planar spiral antenna for generation of tunable angular momentum wave. Optics Express, 2021, 29, 3754.	3.4	7
64	Application of the Spatial–Spectral CG-FFT Method for the Solution of Electromagnetic Scattering by Buried Flat Metallic Objects. IEEE Geoscience and Remote Sensing Letters, 2007, 4, 37-40.	3.1	6
65	A Marching-on-in-Degree Solution of Volume Integral Equations for Transient Electromagnetic Scattering by Bi-Isotropic Objects. Electromagnetics, 2011, 31, 159-172.	0.7	6
66	Analysis of Uniaxial Media Using Calderón-Preconditioned Single-Source Combined Field Integral Equation. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 491-494.	4.0	6
67	Design of a Minimized Complementary Illusion Cloak with Arbitrary Position. International Journal of Antennas and Propagation, 2015, 2015, 1-7.	1.2	6
68	A Nodal Discontinuous Galerkin Time-Domain Method Based on Wave Equation. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 1083-1087.	4.0	6
69	Design of broadband metamaterial-based ferromagnetic absorber. Materials Science Advanced Composite Materials, 2018, 2, .	0.3	6
70	A Transparent SIW Cavity-Based Millimeter-Wave Slot Antenna for 5G Communication. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 1105-1109.	4.0	6
71	Characteristic Variables Patching Conditions in Multidomain Pseudospectral Time Domain. IEEE Antennas and Wireless Propagation Letters, 2007, 6, 353-356.	4.0	5
72	Time‐domain augmented EFIE and its marching‐on‐in‐degree solution. Microwave and Optical Technology Letters, 2011, 53, 1439-1444.	1.4	5

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73	Improving multilevel Green's function interpolation method with a new interpolation grid. Journal of Electromagnetic Waves and Applications, 2013, 27, 1892-1901.	1.6	5
74	A miniaturized design of 2.45 GHz <scp>RFID</scp> tag antenna. Microwave and Optical Technology Letters, 2015, 57, 1905-1908.	1.4	5
75	A novel design of dual broadband, single-layer circularly polarized reflectarray. International Journal of RF and Microwave Computer-Aided Engineering, 2015, 25, 364-369.	1.2	5
76	A wireless power transfer system based on impedance matching network. International Journal of RF and Microwave Computer-Aided Engineering, 2020, 30, e22437.	1.2	5
77	A <scp>pattern reconfigurable</scp> antenna design for body area networks communications. International Journal of RF and Microwave Computer-Aided Engineering, 2021, 31, e22820.	1.2	5
78	Multidomain pseudospectral time-domain method for computation of electromagnetic scattering by bodies of revolution. Microwave and Optical Technology Letters, 2005, 47, 92-96.	1.4	4
79	Corrections to "Comparison of Interpolating Functions and Interpolating Points in Full-Wave Multilevel Green's Function Interpolation Method"[Aug 10 2691-2699. IEEE Transactions on Antennas and Propagation, 2010, 58, 3437-3437.	5.1	4
80	A time domain equivalence principle and its marching on in degree solution. Microwave and Optical Technology Letters, 2014, 56, 2415-2422.	1.4	4
81	Artificial neural network and convex optimization enable antenna array design. International Journal of RF and Microwave Computer-Aided Engineering, 2021, 31, e22593.	1.2	4
82	An interior penalty <scp>G</scp>alerkin domain decomposition method based on high order basis function. Microwave and Optical Technology Letters, 2015, 57, 1961-1965.	1.4	3
83	Metamaterial-inspired wideband low-profile circularly polarized antenna. , 2015, , .		3
84	Design of Graphene-Based Metamaterial Absorber and Antenna. , 0, , .		3
85	Improved Estimation of Time Step Bound for Discontinuous Galerkin Time-Domain Method. IEEE Antennas and Wireless Propagation Letters, 2021, 20, 1731-1735.	4.0	3
86	Multidomain pseudospectral time domain algorithm in curvilinear coordinates system. Microwave and Optical Technology Letters, 2007, 49, 2618-2624.	1.4	2
87	Compact multiband antenna employing CRLH-TL structure for USB dongle applications. , 2013, , .		2
88	Equivalence principle algorithm using characteristic basis functions with application to finite periodic arrays including uniaxial dielectrics and conducting objects. Waves in Random and Complex Media, 2014, 24, 306-315.	2.7	2
89	A Calderón preconditioned single source combined field integral equation for analysis of bi isotropic object. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2015, 28, 582-592.	1.9	2
90	Modeling hybrid EM-circuit system with wave equation-based discontinuous Galerkin time domain method. , 2017, , .		2

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91	An hp-Adaptive Scheme of Discontinuous Galerkin Time-Domain Method With Fast Error Estimation. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 3776-3788.	4.6	2
92	A Circuit-Based Wave Port Boundary Condition for the Nodal Discontinuous Galerkin Time-Domain Method. Electronics (Switzerland), 2022, 11, 1842.	3.1	2
93	Dual-Ridge Gap Waveguide-Based Antenna With Diverse Beam Capabilities. IEEE Open Journal of Antennas and Propagation, 2022, 3, 774-782.	3.7	2
94	SAR study of antennas in wireless communication terminals. Microwave and Optical Technology Letters, 2014, 56, 2361-2365.	1.4	1
95	Hybridized discontinuous Galerkin time domain method with boundary integral equation method. , 2016, , .		1
96	High-selective band-reject FSS with dual-band near-zero refractive index based on complementary dual-layer symmetry resonator-ring. International Journal of Microwave and Wireless Technologies, 2018, 10, 243-251.	1.9	1
97	A Hybrid Vector Wave Equation- and Maxwellâ€™s Equation-Based Discontinuous Galerkin Time Domain Method. , 2018, , .		1
98	An Impedance Transmission Boundary Condition-Based Interior Penalty Discontinuous Galerkin Time Domain Method for Analysis of Graphene. , 2019, , .		1
99	GPU Parallelization of Wave Equation Based Discontinuous Galerkin Time Domain Method. , 2019, , .		1
100	Discontinuous Galerkin Time Domain Method With Nonconformal Meshes and Arbitrary Order Bases. , 2021, , .		1
101	Patching Conditions of Multi-domain Pseudospectral Time-domain Method. , 2007, , .		0
102	The Finite-Volume Time-Domain Electromagnetic Solver. , 2007, , .		0
103	Scattering analysis of mixed metallic/uniaxial objects using surface integral equations accelerated by adaptive cross approximation algorithm. , 2010, , .		0
104	Electromagnetic scattering from three-dimensional Bi-isotropic media using multilevel Green's function interpolation method. , 2010, , .		0
105	Analysis of scattering by an anisotropic uniaxial-coated conducting sphere using higher order hierarchical MoM. , 2010, , .		0
106	Two-level IE-FFT algorithm for full wave electromangetic problems. , 2011, , .		0
107	OpenMP parallelized MOD solution of the timeâ€domain EFIE accelerated by the ACA algorithm. Microwave and Optical Technology Letters, 2012, 54, 1206-1212.	1.4	0
108	Multiband MIMO antenna for wireless USB dongle in LTE operation. , 2013, , .		0

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109	Calderón preconditioner for a marching‐on‐in‐degree solution of time‐domain electric field integral equation. Microwave and Optical Technology Letters, 2014, 56, 1069-1072.	1.4	0
110	Dual-pass band equivalent circuit analysis for frequency selective surfaces. , 2015, , .		0
111	Three dimensional electromagnetic invisibility cloak with arbitrary shapes. , 2015, , .		0
112	Design of cloak for radially inhomogeneous spheres. , 2016, , .		0
113	Discontinuous galerkin time-domain method based on a new marching-on-in degree scheme. , 2017, , .		0
114	Helmholtz wave equation based discontinuous galerkin time domain method for 3d electromagnetic analysis. , 2017, , .		0
115	Design of wideband MIMO handset antennas using characteristic modes. , 2017, , .		0
116	A wideband magneto-electric dipole antenna for circularly polarized radiation. , 2017, , .		0
117	Optimal cloak of anisotropic spheres. , 2017, , .		0
118	MIMO Antenna Array Design Based on Characteristic Mode Method. , 2018, , .		0
119	A Mode Reconfigurable MIMO Antenna Array Design. , 2018, , .		0
120	Discontinuous Galerkin Time Domain Method with A Local Time Stepping Algorithm. , 2018, , .		0
121	Analysis of electromagnetic interference emission in domestic induction cooker. Microwave and Optical Technology Letters, 2018, 60, 3059-3068.	1.4	0
122	Construction of Arbitrarily Shaped Cloaks using Characteristic Mode Method. , 2018, , .		0
123	Electronic Beam-steering Using 1-Bit Digital Rflective Metasurface at Ka Band. , 2019, , .		0
124	Wideband Substrate-Integrated-Waveguide-Fed Magneto-Electric Dipole Array Antenna. , 2019, , .		0
125	Application of Nodal Discontinuous Galerkin Time Domain Method Based on Wave Equation in Electromagnetic Simulations. , 2019, , .		0
126	Application of Hybridized Discontinuous Galerkin Time Domain Method into the Solution of Multiscale Electromagnetic Problems. , 2019, , .		0

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127	Design of Polarization Reconfigurable Antenna Using Characteristic Mode. , 2019, , .		0
128	Low-Memory Hybrid Discontinuous Galerkin Time Domain Algorithm. , 2020, , .		0
129	Multifunctional Array for Achieving Orbital Angular Momentum Vortex Wave and RCS Reduction. , 2021, , .		0
130	A Coaxial Lumped Port Model for the Nodal DGTD Method. , 2021, , .		0
131	Antenna Array Based RCS Reduction Design. , 2020, , .		0
132	Integration of discontinuous Galerkin time-domain method and SPICE for multiport networks. , 2021, , .		0
133	An Elementwise Stability Estimation Algorithm for Explicit Discontinuous Galerkin Time Domain Method. , 2022, , .		0