Qiang Ren

List of Publications by Year
in descending order

76 papers	795 citations	516215 16 h-index	525886 27 g-index
77 all docs	77 docs citations	77 times ranked	427 citing authors

#	Article	IF	Citations
1	An Adaptive High-Order Transient Algorithm to Solve Large-Scale Anisotropic Maxwell's Equations. IEEE Transactions on Antennas and Propagation, 2022, 70, 2082-2092.	3.1	20
2	Foundation of Ultradeep Boundary Detection Based on the Electric Field Characteristics. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-11.	2.7	1
3	Basic Principles of Unveiling Electromagnetic Problems Based on Deep Learning. , 2022, , 23-41.		0
4	Introduction to Electromagnetic Problems. , 2022, , 1-22.		0
5	Three-Dimensional Electromagnetic Scattering Solver. , 2022, , 99-122.		0
6	Two-Dimensional Electromagnetic Scattering Solver. , 2022, , 73-98.		0
7	Sophisticated Electromagnetic Forward Scattering Solver via Deep Learning. , 2022, , .		1
8	A versatile inversion approach for space/temperature/time-related thermal conductivity via deep learning. International Journal of Heat and Mass Transfer, 2022, 186, 122444.	2.5	5
9	DEH Scheme DGTD-Based Transient Modeling Approach for the Cole–Cole Dispersive Media Using Tustin's Method. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 2031-2039.	2.9	2
10	On-Chip Structures for Fmax Binning and Optimization. Sensors, 2022, 22, 1382.	2.1	1
11	Modeling of Metasurfaces Using Discontinuous Galerkin Time-Domain Method Based on Generalized Sheet Transition Conditions. IEEE Transactions on Antennas and Propagation, 2022, 70, 6905-6917.	3.1	4
12	Progress in water-based metamaterial absorbers: a review. Optical Materials Express, 2022, 12, 1461.	1.6	30
13	Predicting surface heat flux on complex systems via Conv-LSTM. Case Studies in Thermal Engineering, 2022, 33, 101927.	2.8	3
14	Fast multi-physics simulation approach in underwater exploration via deep learning technique. Electronics Letters, 2022, 58, 200-202.	0.5	0
15	Multi-functional tunable ultra-broadband water-based metasurface absorber with high reconfigurability. Journal Physics D: Applied Physics, 2022, 55, 285103.	1.3	18
16	Ultrabroadband Saline-Based Metamaterial Absorber With Near Theoretical Absorption Bandwidth Limit. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 1388-1392.	2.4	10
17	A Vectorial Discontinuous Galerkin Time-Domain Method Incorporating Generalized Sheet Transition Conditions. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 3765-3775.	2.9	1
18	Inversion of Sophisticated Thermal Conductivity via Deep Learning. , 2022, , .		0

#	ARTICLE	IF	CITATIONS
19	The Applications of the Symmetric Layered Medium Green's Function in Magnetic Field Integral Equation. IEEE Transactions on Antennas and Propagation, 2022, , 1-1.	3.1	1
20	Fast Multi-Physics Simulation of Microwave Filters via Deep Hybrid Neural Network. IEEE Transactions on Antennas and Propagation, 2022, 70, 5165-5178.	3.1	10
21	Efficient transient thermal analysis based on spectral element time domain method with curvilinear hexahedrons. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2021, 34, e2814.	1.2	4
22	A Novel Authentication Methodology to Detect Counterfeit PCB Using PCB Trace-Based Ring Oscillator. IEEE Access, 2021, 9, 28525-28539.	2.6	7
23	Frequency Reconfigurable Antenna Based on Substrate Integrated Waveguide for S-Band and C-Band Applications. IEEE Access, 2021, 9, 2839-2845.	2.6	14
24	An Adaptive DGTD Algorithm Based on Hierarchical Vector Basis Function. IEEE Transactions on Antennas and Propagation, 2021, 69, 9038-9042.	3.1	6
25	3-D Steady Heat Conduction Solver via Deep Learning. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2021, 6, 100-108.	1.4	10
26	Parallel Subdomain-Level DGTD Method With Automatic Load Balancing Scheme With Tetrahedral and Hexahedral Elements. IEEE Transactions on Antennas and Propagation, 2021, 69, 2230-2241.	3.1	12
27	Efficient Simulation of Cuboid Object in Multiplanar Layered Medium by Improved Spectrum Integral Method. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 7086-7097.	2.7	1
28	Efficient Electromagnetic Modeling of Multidomain Planar Layered Medium by Surface Integral Equation. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 3635-3644.	2.9	5
29	Accurate Electromagnetic Simulation of Penetrable Objects by Higher Order Current and Charge Integral Equation. IEEE Transactions on Antennas and Propagation, 2021, 69, 5160-5165.	3.1	1
30	An all-dielectric metasurface absorber based on surface wave conversion effect. Applied Physics Letters, 2021, 119, .	1.5	13
31	High-Order Conformal Perfectly Matched Layer for the DGTD Method. IEEE Transactions on Antennas and Propagation, 2021, 69, 7753-7760.	3.1	6
32	Transient Electromagnetic–Thermal Cosimulation for Micrometer-Level Components. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 4341-4351.	2.9	8
33	Non-linear Heat Conduction Inversion Method Based on Deep Learning. , 2021, , .		0
34	An On-chip Path Delay Measurement Sensor for Aging Monitoring. , 2021, , .		0
35	Electromagnetic Scattering Solver for Metal Nanostructures via Deep Learning. , 2021, , .		1
36	Surface Wave Conversion for Enhanced, Robust and Wide-Angle Absorption. , 2021, , .		1

#	Article	IF	Citations
37	Time-domain Inversion Cascade Network (TICaN) for Sophisticated Scatterers. , 2021, , .		0
38	3-D Hybrid Finite-Difference Time-Domain (FDTD)/ Wave Equation Finite Element Time-Domain (WE-FETD) Method. , 2021, , .		1
39	Cascaded Network for Inversion of Electrical Conductivity in High Noise Environment. , 2021, , .		0
40	A Method to Obtain Deep Neural Network for Predicting ISAR Images of Coted Targets with Defect. , 2021, , .		0
41	Metasurface-Based Circularly-Polarized Multibeam Reflect-/Transmit-Arrays. , 2020, , .		2
42	Predicting Scattering From Complex Nano-Structures via Deep Learning. IEEE Access, 2020, 8, 139983-139993.	2.6	30
43	Electromagnetic Simulation of Periodic Structures Using Memory Efficient DGTD Method. , 2020, , .		0
44	Probing Composite Vibrational Fingerprints in the Terahertz Range With Graphene Split Ring Resonator. IEEE Photonics Journal, 2020, 12, 1-8.	1.0	10
45	Two-Dimensional Electromagnetic Solver Based on Deep Learning Technique. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2020, 5, 83-88.	1.4	55
46	Improved Memory-Efficient Subdomain Level Discontinuous Galerkin Time Domain Method for Periodic/Quasi-Periodic Structures. IEEE Transactions on Antennas and Propagation, 2020, 68, 7471-7479.	3.1	10
47	Transient Thermal Analysis Based on Spectral Element Time Domain Method. , 2019, , .		1
48	Numerical dispersion reduction approach for finite‐difference methods. Electronics Letters, 2019, 55, 591-593.	0.5	7
49	Parallel Subdomain Level DGTD Method with Automatic Load Balancing. , 2019, , .		0
50	A New Hardware Trojan Detection System Based on CRON. , 2019, , .		1
51	A Novel Authorization Methodology to Prevent Counterfeit PCB/Equipment through Supply Chain. , 2019, , .		3
52	Parallel Subdomain Level DGTD Method with Load Balancing. , 2019, , .		0
53	Manipulating Optical Chirality in the Near-Field of Plasmonic Metamaterials with Superchiral Light. , 2018, , .		0
54	Deep-subwavelength light transmission in hybrid nanowire-loaded silicon nano-rib waveguides. Photonics Research, 2018, 6, 37.	3.4	35

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55	Continuous-discontinuous Galerkin time domain (CDGTD) method with generalized dispersive material (GDM) model for computational photonics. Optics Express, 2018, 26, 29005.	1.7	13
56	Efficient Simulation and Optimization of Nanoloop Antennas. , 2018, , .		0
57	Wave Equation-Based Implicit Subdomain DGTD Method for Modeling of Electrically Small Problems. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 1111-1119.	2.9	35
58	An Improved Subdomain Level Nonconformal Discontinuous Galerkin Time Domain (DGTD) Method for Materials With Full-Tensor Constitutive Parameters. IEEE Photonics Journal, 2017, 9, 1-13.	1.0	24
59	3-D Domain Decomposition Based Hybrid Finite-Difference Time-Domain/Finite-Element Time-Domain Method With Nonconformal Meshes. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 3682-3688.	2.9	24
60	Isotropic Riemann Solver for a Nonconformal Discontinuous Galerkin Pseudospectral Time-Domain Algorithm. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 1254-1261.	2.7	45
61	Efficient Wideband Numerical Simulations for Nanostructures Employing a Drude-Critical Points (DCP) Dispersive Model. Scientific Reports, 2017, 7, 2126.	1.6	3
62	Efficient Cross-talk Reduction of Nanophotonic Circuits Enabled by Fabrication Friendly Periodic Silicon Strip Arrays. Scientific Reports, 2017, 7, 15827.	1.6	18
63	Multiobjective Optimization-Aided Metamaterials-by-Design With Application to Highly Directive Nanodevices. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2017, 2, 147-158.	1.4	16
64	A discontinuous Galerkin method for simulating the effects of arbitrary discrete fractures on elastic wave propagation. Geophysical Journal International, 2017, 210, 1219-1230.	1.0	52
65	Efficient Ordinary Differential Equation-Based Discontinuous Galerkin Method for Viscoelastic Wave Modeling. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 5577-5584.	2.7	36
66	A vanadium dioxide integrated hybird metamaterial with electrically driven multifunctional control. , 2017, , .		1
67	Leap-Frog Continuousâ€"Discontinuous Galerkin Time Domain Method for Nanoarchitectures With the Drude Model. Journal of Lightwave Technology, 2017, 35, 4888-4896.	2.7	15
68	Reconfigurable nanowire assembly enabled field-switchable broadband polarizers. , 2017, , .		0
69	Efficient cross-talk reduction of nanophotonic circuits enabled by periodic silicon strip arrays. , 2017, , .		0
70	EB Scheme-Based Hybrid SE-FE DGTD Method for Multiscale EM Simulations. IEEE Transactions on Antennas and Propagation, 2016, 64, 4088-4091.	3.1	54
71	EB scheme hybrid spectral-finite element time domain method for super multiscale simulations. , 2015, , .		0
72	A New 3-D Nonspurious Discontinuous Galerkin Spectral Element Time-Domain (DG-SETD) Method for Maxwellâ€™s Equations. IEEE Transactions on Antennas and Propagation, 2015, 63, 2585-2594.	3.1	52

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73	A new efficient 3D Discontinuous Galerkin Time Domain (DGTD) method for large and multiscale electromagnetic simulations. Journal of Computational Physics, 2015, 283, 374-387.	1.9	30
74	New DG-SETD method for 3D EM simulations. , 2014, , .		0
75	Spectral-Prism Element for Multi-Scale Layered Package-Chip Co-Simulations Using the Discontinuous Galerkin Time-Domain Method. Electromagnetics, 2014, 34, 270-285.	0.3	4
76	A NEW 2D NON-SPURIOUS DISCONTINUOUS GALERKIN FINITE ELEMENT TIME DOMAIN (DG-FETD) METHOD FOR MAXWELL'S EQUATIONS. Progress in Electromagnetics Research, 2013, 143, 385-404.	1.6	22