Jun Hu

List of Publications by Year in Descending Order

133	883	15	22
papers	citations	h-index	g-index
214	1,257	3.8	4.66
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
133	A Spurious-Free Characteristic Mode Formulation Based on Surface Integral Equation for Patch Antenna Structures. *IEEE Antennas and Wireless Propagation Letters*, **2022**, 1-1	3.8	1
132	Wideband Receive Beamforming Based on 4-D Antenna Arrays With Post-Modulation. *IEEE Antennas and Wireless Propagation Letters*, **2022**, 1-1	3.8	
131	Fast Frequency and Material Parameters Sweep for the Calculation of Array Structures. *IEEE Antennas and Wireless Propagation Letters*, **2022**, 1-1	3.8	
130	A-EFIE With Model-Order Reduction Technique for Fast Analysis of Circuit Simulation. *IEEE Microwave and Wireless Components Letters*, **2022**, 1-4	2.6	
129	A Vector Modulation Approach for Secure Communications Based on 4-D Antenna Arrays. *IEEE Transactions on Antennas and Propagation*, **2021**, 1-1	4.9	0
128	An Irregular Tiled Array Technique for Massive MIMO Systems. *IEEE Transactions on Wireless Communications*, **2021**, 1-1	9.6	0
127	. *IEEE Transactions on Antennas and Propagation*, **2021**, 1-1	4.9	1
126	Convex Optimization of Mutual Inductance between Multi-Antiparallel Coils for Distance-Insensitive Wireless Charging of Air-ground Robots. *IEEE Internet of Things Journal*, **2021**, 1-1	10.7	0
125	Solving Two-Dimensional Scattering From Multiple Dielectric Cylinders by Artificial Neural Network Accelerated Numerical Green's Function. *IEEE Antennas and Wireless Propagation Letters*, **2021**, 20, 783-787	3.8	2
124	. *IEEE Internet of Things Journal*, **2021**, 8, 8064-8077	10.7	3
123	High-Order VSIE-Based Reduced Basis Method for Fast Modeling of Anisotropic-Metallic Targets. *IEEE Antennas and Wireless Propagation Letters*, **2021**, 20, 1125-1129	3.8	
122	High-Directivity Optimization Technique for Irregular Arrays Combined With Maximum Entropy Model. *IEEE Transactions on Antennas and Propagation*, **2021**, 69, 3913-3923	4.9	4
121	Adaptive Learning of Probability Density Taper for Large Planar Array Thinning. *IEEE Transactions on Antennas and Propagation*, **2021**, 69, 155-163	4.9	1
120	Synthesis of Sparse Array With Sum and Difference Patterns Under Minimum Element Spacing Control by Alternating Linear Programming Optimization. *IEEE Antennas and Wireless Propagation Letters*, **2021**, 1-1	3.8	1
119	A Flexible FEM-BEM-DDM for EM Scattering by Multiscale Anisotropic Objects. *IEEE Transactions on Antennas and Propagation*, **2021**, 1-1	4.9	3
118	In-Band Scattering and Radiation Tradeoff of Broadband Phased Arrays Based on Scattering-Matrix Approach. *IEEE Transactions on Antennas and Propagation*, **2021**, 1-1	4.9	4
117	An Efficient Integral Equation Model-Order Reduction Method for Complex Radiation Problem. *IEEE Antennas and Wireless Propagation Letters*, **2021**, 1-1	3.8	1

116	Strong Admissibility Skeletonization Factorization for Fast Direct Solution of Electromagnetic Scattering From Conducting Objects. *IEEE Transactions on Antennas and Propagation*, **2021**, 1-1	4.9	1
115	Low-Rank Matrix Factorization Method for Multiscale Simulations: A Review. *IEEE Open Journal of Antennas and Propagation*, **2021**, 2, 286-301	1.9	4
114	A Novel 3-D-NUFFT Method for the Efficient Calculation of the Array Factor of Conformal Arrays. *IEEE Transactions on Antennas and Propagation*, **2021**, 1-1	4.9	
113	In-Band SCS Reduction of Microstrip Phased Array Based on Impedance Matching Network. *IEEE Transactions on Antennas and Propagation*, **2021**, 1-1	4.9	3
112	Integrated Coupler-Antenna Design for Multi-Beam Dual-Polarized Patch-Array Rectenna. *IEEE Transactions on Antennas and Propagation*, **2021**, 1-1	4.9	2
111	A 3-D-Printed Multibeam Spherical Lens Antenna With Ultrawide-Angle Coverage. *IEEE Antennas and Wireless Propagation Letters*, **2021**, 20, 411-415	3.8	10
110	Research on multi-mode multiplexing OAM antenna system based on offset-fed beam bunching paraboloid. *Electromagnetics*, **2021**, 41, 367-379	0.8	
109	A Multitrace Surface Integral Equation Method for PEC/Dielectric Composite Objects. *IEEE Antennas and Wireless Propagation Letters*, **2021**, 20, 1404-1408	3.8	1
108	Synthesis of Sparse Antenna Arrays Subject to Constraint on Directivity via Iterative Convex Optimization. *IEEE Antennas and Wireless Propagation Letters*, **2021**, 20, 1498-1502	3.8	4
107	Dual-Beam Rectenna Based on a Short Series-Coupled Patch Array. *IEEE Transactions on Antennas and Propagation*, **2021**, 69, 5617-5630	4.9	5
106	Hybrid Directional Modulation and Beamforming for Physical Layer Security Improvement Through 4-D Antenna Arrays. *IEEE Transactions on Antennas and Propagation*, **2021**, 69, 5903-5912	4.9	6
105	Arbitrary Vortex Beam Synthesis With Donut-Shaped Metasurface. *IEEE Transactions on Antennas and Propagation*, **2021**, 1-1	4.9	4
104	. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 7927-7936	4.9	10
103	Fast Direct Surface Integral Equation Solution for Electromagnetic Scattering Analysis With Skeletonization Factorization. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 3016-3025	4.9	2
102	Hybrid FEM-DDM and BEM-BoR for the Analysis of Multiscale Composite Structures. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 4753-4763	4.9	4
101	In-Band Scattering Reduction of Wideband Phased Antenna Arrays With Enhanced Coupling Based on Phase-Only Optimization Techniques. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 5297-5307	4.9	9
100	Solving EM Scattering From Complex Thin Dielectric/PEC Composite Targets by a VSIE-Based Method. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 3900-3910	4.9	1
99	A Local Coupling Multitrace Domain Decomposition Method for Electromagnetic Scattering From Multilayered Dielectric Objects. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 7099-7108	4.9	5

98	Transmit Beamforming Based on 4-D Antenna Arrays for Low Probability of Intercept Systems. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 3625-3634	4.9	8
97	. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 6098-6108	4.9	7
96	Low Cross-Polarization Ultrawideband Tightly Coupled Balanced Antipodal Dipole Array. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 4479-4488	4.9	11
95	LPI Beamforming Based on 4-D Antenna Arrays With Pseudorandom Time Modulation. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 2068-2077	4.9	9
94	The Fast Physical Optics Method on Calculating the Scattered Fields From Electrically Large Scatterers. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 2267-2276	4.9	3
93	. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 2810-2821	4.9	
92	DOA Estimation via Sparse Signal Recovery in 4-D Linear Antenna Arrays With Optimized Time Sequences. *IEEE Transactions on Vehicular Technology*, **2020**, 69, 771-783	6.8	2
91	Machine-Learning-Based Hybrid Method for the Multilevel Fast Multipole Algorithm. *IEEE Antennas and Wireless Propagation Letters*, **2020**, 19, 2177-2181	3.8	5
90	An Adaptive Segmented Reduced Basis Method for Fast Interpolating the Wideband Scattering of the Dielectric-Metallic Targets. *IEEE Antennas and Wireless Propagation Letters*, **2020**, 19, 2235-2239	3.8	2
89	The Efficient Method for Calculating the Physical Optics Scattered Fields from the Concave Surfaces. *International Journal of Antennas and Propagation*, **2020**, 2020, 1-12	1.2	
88	Improving Physical Layer Security Technique Based on 4-D Antenna Arrays with Pre-Modulation **2020**,		1
87	The Two-Dimensional Numerical Steepest Descent Path Method for Calculating the Physical Optics Scattered Fields From Different Quadratic Patches. *IEEE Transactions on Antennas and Propagation*, **2020**, 68, 2246-2255	4.9	1
86	Efficient Electromagnetic Analysis for Complex Planar Thin-Layer Composite Objects by a Hybrid Method. *IEEE Antennas and Wireless Propagation Letters*, **2019**, 18, 1706-1710	3.8	2
85	Skeletonization-Scheme-Based Adaptive Near Field Sampling for Radio Frequency Source Reconstruction. *IEEE Internet of Things Journal*, **2019**, 6, 10219-10228	10.7	3
84	. *IEEE Internet of Things Journal*, **2019**, 6, 7038-7047	10.7	4
83	Linear Array Thinning Using Probability Density Tapering Approach. *IEEE Antennas and Wireless Propagation Letters*, **2019**, 18, 1936-1940	3.8	3
82	Generating Dual-Polarization Dual-Mode OAM Based on Transmissive Metasurface **2019**,		2
81	Pattern Synthesis of 4-D Irregular Antenna Arrays Based on Maximum-Entropy Model. *IEEE Transactions on Antennas and Propagation*, **2019**, 67, 3048-3057	4.9	28

80	Fast Direct Solution of Integral Equations With Modified HODLR Structure for Analyzing Electromagnetic Scattering Problems. *IEEE Transactions on Antennas and Propagation*, **2019**, 67, 3288-3296	4.9	8
79	SIE-DDM Based on a Hybrid Direct-Iterative Approach for Analysis of Multiscale Problems. *IEEE Transactions on Antennas and Propagation*, **2019**, 67, 7440-7451	4.9	3
78	Twofold Domain Decomposition Method for the Analysis of Multiscale Composite Structures. *IEEE Transactions on Antennas and Propagation*, **2019**, 67, 6090-6103	4.9	9
77	Fast Solving Scattering From Multiple Bodies of Revolution With Arbitrarily Metallic-Dielectric Combinations. *IEEE Transactions on Antennas and Propagation*, **2019**, 67, 4748-4755	4.9	3
76	Efficient Pencil Beam Synthesis in 4-D Antenna Arrays Using an Iterative Convex Optimization Algorithm. *IEEE Transactions on Antennas and Propagation*, **2019**, 67, 6847-6858	4.9	12
75	. *IEEE Transactions on Antennas and Propagation*, **2019**, 67, 676-680	4.9	22
74	Sparse Source Model for Prediction of Radiations by Transmission Lines on a Ground Plane Using a Small Number of Near-Field Samples. *IEEE Antennas and Wireless Propagation Letters*, **2019**, 18, 103-107	3.8	12
73	. *IEEE Antennas and Wireless Propagation Letters*, **2019**, 18, 378-382	3.8	21
72	$mathcal {H}$ -Matrices Compressed Multiplicative Schwarz Preconditioner for Nonconformal FEM-BEM-DDM. *IEEE Transactions on Antennas and Propagation*, **2018**, 66, 2691-2696	4.9	10
71	A Straightforward Updating Criterion for 2-D/3-D Hybrid Discontinuous Galerkin Time-Domain Method Controlling Comparative Error. *IEEE Transactions on Microwave Theory and Techniques*, **2018**, 66, 1713-1722	4.1	4
70	A Domain Decomposition Scheme With Curvilinear Discretizations for Solving Large and Complex PEC Scattering Problems. *IEEE Antennas and Wireless Propagation Letters*, **2018**, 17, 242-246	3.8	7
69	A novel implementation of IEDG-based DDM for solving electromagnetic scattering from large and complex PEC objects. *Electromagnetics*, **2018**, 38, 1-19	0.8	5
68	Convex Optimization of Pencil Beams Through Large-Scale 4-D Antenna Arrays. *IEEE Transactions on Antennas and Propagation*, **2018**, 66, 3453-3462	4.9	27
67	Efficient Solution of Scattering From Composite Planar Thin Dielectric-Conductor Objects by Volume-Surface Integral Equation and Simplified Prism Vector Basis Functions. *IEEE Transactions on Antennas and Propagation*, **2018**, 66, 2686-2690	4.9	8
66	Directional Enhancement Analysis of All-Dielectric Optical Nanoantennas Based on SIE Formulation. *IEEE Photonics Technology Letters*, **2018**, 30, 123-126	2.2	1
65	VSIE-Based Domain Decomposition Method With Simplified Prism Vector Basis Functions for Planar Thin Dielectric-Conductor Composite Objects. *IEEE Antennas and Wireless Propagation Letters*, **2018**, 17, 1608-1612	3.8	4
64	A Flexible SIE-DDM for EM Scattering by Large and Multiscale Problems. *IEEE Transactions on Antennas and Propagation*, **2018**, 66, 7466-7471	4.9	5
63	Fast Analysis of Parallel-Plate Cylindrical Luneberg Lens Antennas Through Dyadic Green's Functions. *IEEE Transactions on Microwave Theory and Techniques*, **2018**, 66, 4327-4337	4.1	6

62	Well-Conditioned FEM-BEM-DDM for Electromagnetic Scattering by Composite Objects **2018**,		1
61	4-D Retro-Directive Antenna Arrays for Secure Communication Based on Improved Directional Modulation. *IEEE Transactions on Antennas and Propagation*, **2018**, 66, 5926-5933	4.9	12
60	Multi-Excitation Simulation of Half-Space Scattering Using Characteristic Mode Theory **2018**,		2
59	A Nonconformal Surface Integral Equation for Electromagnetic Scattering by Multiscale Conducting Objects. *IEEE Journal on Multiscale and Multiphysics Computational Techniques*, **2018**, 3, 225-234	1.5	7
58	Multiple-Traces Surface Integral Equations for Electromagnetic Scattering From Complex Microstrip Structures. *IEEE Transactions on Antennas and Propagation*, **2018**, 66, 3804-3809	4.9	7
57	A Novel JMCFIE-DDM for Analysis of EM Scattering and Radiation by Composite Objects. *IEEE Antennas and Wireless Propagation Letters*, **2017**, 16, 389-392	3.8	7
56	Improved Algebraic Preconditioning for Multiscale Electromagnetic Problems. *IEEE Antennas and Wireless Propagation Letters*, **2017**, 16, 1447-1450	3.8	1
55	Discrete Quasi-Helmholtz Decomposition for 3-D High-Contrast Lossy Dielectric Problems. *IEEE Antennas and Wireless Propagation Letters*, **2017**, 16, 1480-1483	3.8	3
54	An Efficient and Stable 2-D/3-D Hybrid Discontinuous Galerkin Time-Domain Analysis With Adaptive Criterion for Arbitrarily Shaped Antipads in Dispersive Parallel-Plate Pair. *IEEE Transactions on Microwave Theory and Techniques*, **2017**, 65, 3671-3681	4.1	6
53	Fast Solution of Electromagnetic Scattering From Homogeneous Dielectric Objects with Multiple-Traces EF/MFIE Method. *IEEE Antennas and Wireless Propagation Letters*, **2017**, 16, 2211-2215	3.8	4
52	Solving electromagnetic scattering from complex composite objects with domain decomposition method based on hybrid surface integral equations. *Engineering Analysis With Boundary Elements*, **2017**, 85, 99-104	2.6	3
51	A Spectral Integral Method for Smooth Multilayered Bodies of Revolution. *IEEE Transactions on Antennas and Propagation*, **2017**, 65, 4146-4154	4.9	3
50	Full Wave Modeling of Array Structures Using Generalized Single-Source Tangential Equivalence Principle Algorithm. *International Journal of Antennas and Propagation*, **2017**, 2017, 1-10	1.2	2
49	Acceleration of Augmented EFIE Using Multilevel Complex Source Beam Method. *International Journal of Antennas and Propagation*, **2017**, 2017, 1-8	1.2	
48	Estimation of initial guess of steepest descent method for near field phase retrieval **2017**,		1
47	A Butterfly-Based Direct Integral-Equation Solver Using Hierarchical LU Factorization for Analyzing Scattering From Electrically Large Conducting Objects. *IEEE Transactions on Antennas and Propagation*, **2017**, 65, 4742-4750	4.9	43
46	. *IEEE Transactions on Antennas and Propagation*, **2017**, 65, 7063-7072	4.9	24
45	EFIE-PMCHWT-Based Domain Decomposition Method for Solving Electromagnetic Scattering From Complex Dielectric/Metallic Composite Objects. *IEEE Antennas and Wireless Propagation Letters*, **2017**, 16, 1293-1296	3.8	12

44	An efficient solution of scattering from thin dielectric structures by volume-surface integral equation and simplified prism vector basis functions **2017**,		1
43	Analysis of connected structures using equivalence principle algorithm with source reconstruction method. *Journal of Electromagnetic Waves and Applications*, **2016**, 30, 1740-1754	1.3	6
42	Fast solving EM scattering from penetrable objects with non-conformal multiple-traces PMCHWT equations **2016**,		1
41	Solving EM Scattering From Multiscale Coated Objects With Integral Equation Domain Decomposition Method. *IEEE Antennas and Wireless Propagation Letters*, **2016**, 15, 742-745	3.8	5
40	Iteration-Free-Phase Retrieval for Directive Radiators Using Field Amplitudes on Two Closely Separated Observation Planes. *IEEE Transactions on Electromagnetic Compatibility*, **2016**, 58, 607-610	2	15
39	Millimeter-Wave Circularly Polarized Tapered-Elliptical Cavity Antenna With Wide Axial-Ratio Beamwidth. *IEEE Transactions on Antennas and Propagation*, **2016**, 64, 811-814	4.9	48
38	Sparse equivalent source method for radiated emission analysis of shielded circuits **2016**,		1
37	Improving the Accuracy of Single-Source Equivalence Principle Algorithm by Using Tangential Field Projection Scheme. *Electromagnetics*, **2016**, 36, 534-545	0.8	4
36	IE-DDM with a novel multiple-grid p-FFT for analyzing multiscale structures in half space. *Journal of Electromagnetic Waves and Applications*, **2016**, 30, 2138-2152	1.3	1
35	An alternative solution method for hybrid discrete singular convolution-method of moments modeling of reverberation chambers **2016**,		2
34	Low-Cost Periodic Sparse Cavity-Backed Phased Array Based on Multiport Elements. *IEEE Transactions on Antennas and Propagation*, **2015**, 63, 4175-4179	4.9	7
33	Domain decomposition method for scattering from multiple bodies of revolution **2015**,		1
32	An Enhanced Preconditioned JMCFIE-DDM for Analysis of Electromagnetic Scattering by Composite Objects. *IEEE Antennas and Wireless Propagation Letters*, **2015**, 14, 1362-1365	3.8	5
31	Analysis of electromagnetic scattering from combination target of BoR and arbitrary structure using non-conformal IE-DDM **2015**,		2
30	A Study on Linear Frequency Modulation Signal Transmission by 4-D Antenna Arrays. *IEEE Transactions on Antennas and Propagation*, **2015**, 63, 5409-5416	4.9	18
29	Fast Contour Integral Equation Method for Wideband Power Integrity Analysis. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, **2014**, 4, 1317-1324	1.7	8
28	Domain Decomposition Method Based on Integral Equation for Solution of Scattering From Very Thin, Conducting Cavity. *IEEE Transactions on Antennas and Propagation*, **2014**, 62, 5344-5348	4.9	16
27	Solving Scattering by Multilayer Dielectric Objects Using JMCFIE-DDM-MLFMA. *IEEE Antennas and Wireless Propagation Letters*, **2014**, 13, 1132-1135	3.8	13

26	Simulation of multiscale structures using equivalence principle algorithm with grid-robust higher order vector basis. *Journal of Electromagnetic Waves and Applications*, **2014**, 28, 1333-1346	1.3	6
25	Simulation of Complex Multiscale Objects in Half Space With Calderón Preconditioner and Adaptive Cross Approximation. *IEEE Transactions on Antennas and Propagation*, **2014**, 62, 6528-6532	4.9	1
24	Modal Characteristic Basis Function Method for Solving Scattering From Multiple Conducting Bodies of Revolution. *IEEE Transactions on Antennas and Propagation*, **2014**, 62, 870-877	4.9	17
23	EFIE with a novel perturbed ILUT preconditioner for electromagnetic scattering by conducting objects in half space **2014**,		1
22	Application of combination of excitations and compressed sensing for fast computation of monostatic scattering **2013**,		1
21	Frequency-domain measurement of 60 GHz indoor channels: a measurement setup, literature data, and analysis. *IEEE Instrumentation and Measurement Magazine*, **2013**, 16, 34-40	1.4	24
20	Analyzing Large-Scale Arrays Using Tangential Equivalence Principle Algorithm With Characteristic Basis Functions. *Proceedings of the IEEE*, **2013**, 101, 414-422	14.3	20
19	Solving array structures using single-source equivalence principle algorithm **2013**,		4
18	A Wide-Band Equivalent Source Reconstruction Method Exploiting the Stoer-Bulirsch Algorithm With the Adaptive Frequency Sampling. *IEEE Transactions on Antennas and Propagation*, **2013**, 61, 5338-5343	4.9	45
17	A Domain Decomposition Method for Hybrid Shell Vector Element with Boundary Integral Method. *International Journal of Antennas and Propagation*, **2012**, 2012, 1-6	1.2	1
16	Solving Scattering from Conducting Body Coated by Thin-Layer Material by Hybrid Shell Vector Element with Boundary Integral Method. *International Journal of Antennas and Propagation*, **2012**, 2012, 1-7	1.2	4
15	Hierarchical Matrices Method and Its Application in Electromagnetic Integral Equations. *International Journal of Antennas and Propagation*, **2012**, 2012, 1-9	1.2	13
14	Non-conformal geometry discretization scheme for hybrid volume and surface integral equation method. *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, **2012**, 25, 573-586	1	
13	Fast Simulation of Array Structures Using T-EPA With Hierarchical LU Decomposition. *IEEE Antennas and Wireless Propagation Letters*, **2012**, 11, 1556-1559	3.8	12
12	Electromagnetic Analysis of Large Scale Periodic Arrays Using a Two-Level CBFs Method Accelerated With FMM-FFT. *IEEE Transactions on Antennas and Propagation*, **2012**, 60, 5709-5716	4.9	8
11	Accelerating the CBFM solution of 3D electromagnetic scattering by using MLFMA and ACA **2011**,		1
10	A fast IE-FFT solution of 3D coating scatterers. *Microwave and Optical Technology Letters*, **2010**, 52, 241-244	1.2	3
9	Fast inhomogeneous plane wave algorithm for scattering from PEC body of revolution. *Microwave and Optical Technology Letters*, **2010**, 52, 1915-1922	1.2	7

8	Combined MLFMA - ACA algorithm application to scattering problems with complex and fine structure **2009**,		4
7	A highly efficient numerical solution for dielectric-coated PEC targets. *Waves in Random and Complex Media*, **2009**, 19, 65-79	1.9	12
6	An improved Calderón preconditioner for electric field integral equation **2009**,		1
5	Fast Solution of Electromagnetic Scattering From Thin Dielectric Coated PEC by MLFMA and Successive Overrelaxation Iterative Technique. *IEEE Microwave and Wireless Components Letters*, **2009**, 19, 762-764	2.6	4
4	Improved Electric Field Integral Equation (IEFIE) for Analysis of Scattering From 3-D Conducting Structures. *IEEE Transactions on Electromagnetic Compatibility*, **2007**, 49, 644-648	2	14
3	Application of diagonally perturbed incomplete factorization preconditioned conjugate gradient algorithms for edge finite-element analysis of Helmholtz equations. *IEEE Transactions on Antennas and Propagation*, **2006**, 54, 1604-1608	4.9	24
2	Analysis of Scattering and Radiation of Mixed Conducting/Dielectric Objects Using MLFMA **2006**,		1
1	FEM-BEM-DDM for Electromagnetic Radiation Analysis of Periodic Antenna Array		1