Jianguo Wang

List of Publications by Year
in descending order

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97	1,830	236925	289244
papers	citations	25 h-index	40 g-index

97	97	97	615
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	<scp>UNIPIC</scp> code for simulations of high power microwave devices. Physics of Plasmas, 2009, 16, .	1.9	173
2	A Three-Dimensional Semi-Implicit FDTD Scheme for Calculation of Shielding Effectiveness of Enclosure With Thin Slots. IEEE Transactions on Electromagnetic Compatibility, 2007, 49, 354-360.	2.2	164
3	Three-dimensional parallel<scp>UNIPIC-3D</scp>code for simulations of high-power microwave devices. Physics of Plasmas, 2010, 17, 073107.	1.9	87
4	Truncation of open boundaries of cylindrical waveguides in 2.5-dimensional problems by using the convolutional perfectly matched layer. IEEE Transactions on Plasma Science, 2006, 34, 681-690.	1.3	81
5	A 3D hybrid implicit-explicit FDTD scheme with weakly conditional stability. Microwave and Optical Technology Letters, 2006, 48, 2291-2294.	1.4	81
6	A Novel WCS-FDTD Method With Weakly Conditional Stability. IEEE Transactions on Electromagnetic Compatibility, 2007, 49, 419-426.	2.2	76
7	A Hybrid FDTD-SPICE Method for Transmission Lines Excited by a Nonuniform Incident Wave. IEEE Transactions on Electromagnetic Compatibility, 2009, 51, 811-817.	2.2	65
8	A megawatt-level surface wave oscillator in Y-band with large oversized structure driven by annular relativistic electron beam. Scientific Reports, 2018, 8, 6978.	3.3	50
9	Three-dimensional dispersive hybrid implicitâ€“explicit finite-difference time-domain method for simulations of graphene. Computer Physics Communications, 2016, 207, 211-216.	7.5	48
10	SPICE Models to Analyze Radiated and Conducted Susceptibilities of Shielded Coaxial Cables. IEEE Transactions on Electromagnetic Compatibility, 2010, 52, 215-222.	2.2	44
11	Numerical simulations of high power microwave dielectric interface breakdown involving outgassing. Physics of Plasmas, 2010, 17, .	1.9	43
12	A repetitive 0.14 THz relativistic surface wave oscillator. Physics of Plasmas, 2013, 20, 043105.	1.9	43
13	Numerical studies of powerful terahertz pulse generation from a super-radiant surface wave oscillator. Physics of Plasmas, 2009, 16, 123104.	1.9	42
14	Three-dimensional simple conformal symplectic particle-in-cell methods for simulations of high power microwave devices. Computer Physics Communications, 2016, 205, 1-12.	7.5	42
15	Experimental Study on a High-Power Subterahertz Source Generated by an Overmoded Surface Wave Oscillator With Fast Startup. IEEE Transactions on Electron Devices, 2013, 60, 2931-2935.	3.0	38
16	Design and numerical simulations of a high power 0.15 THz oscillator. Physics of Plasmas, 2012, 19, .	1.9	32
17	Analysis of electromagnetic modes excited in overmoded structure terahertz source. Physics of Plasmas, 2013, 20, .	1.9	30
18	Two-dimensional simulation research of secondary electron emission avalanche discharge on vacuum insulator surface. Physics of Plasmas, 2015, 22, .	1.9	30

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19	Continuous-wave Y-band planar BWO with wide tunable bandwidth. Scientific Reports, 2018, 8, 348.	3.3	30
20	Theoretical studies on stability and feasibility of 0.34 THz EIK. Physics of Plasmas, 2017, 24, .	1.9	29
21	Dispersion HIEâ€FDTD method for simulating grapheneâ€based absorber. IET Microwaves, Antennas and Propagation, 2017, 11, 92-97.	1.4	28
22	SPICE MODELS FOR RADIATED AND CONDUCTED SUSCEPTIBILITY ANALYSES OF MULTICONDUCTOR SHIELDED CABLES. Progress in Electromagnetics Research, 2010, 103, 241-257.	4.4	27
23	A high-order mode extended interaction klystron at 0.34 THz. Physics of Plasmas, 2017, 24, .	1.9	27
24	STUDY OF LOSS EFFECT OF TRANSMISSION LINES AND VALIDITY OF A SPICE MODEL IN ELECTROMAGNETIC TOPOLOGY. Progress in Electromagnetics Research, 2009, 90, 89-103.	4.4	26
25	SPICE Models for Prediction of Disturbances Induced by Nonuniform Fields on Shielded Cables. IEEE Transactions on Electromagnetic Compatibility, 2011, 53, 185-192.	2.2	26
26	Suppression of multipactor discharge on a dielectric surface by an external magnetic field. Physics of Plasmas, 2011, 18, .	1.9	23
27	Theoretical and Experimental Study of Effective Coupling Length for Transmission Lines Illuminated by HEMP. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 1529-1538.	2.2	23
28	Comparison between HIE-FDTD method and ADI-FDTD method. Microwave and Optical Technology Letters, 2007, 49, 1001-1005.	1.4	20
29	Small-signal theory of subterahertz overmoded surface wave oscillator with distributed wall loss. AIP Advances, 2015, 5, 097155.	1.3	18
30	Self-consistent simulation of radio frequency multipactor on micro-grooved dielectric surface. Journal of Applied Physics, 2015, 117, 053302.	2.5	18
31	An optimization method of relativistic backward wave oscillator using particle simulation and genetic algorithms. Physics of Plasmas, 2013, 20, .	1.9	17
32	Relativistic Surface Wave Oscillator in Y-Band with Large Oversized Structures Modulated by Dual Reflectors. Scientific Reports, 2020, 10, 336.	3.3	17
33	A Novel Body-of-Revolution Finite-Difference Time-Domain Method With Weakly Conditional Stability. IEEE Microwave and Wireless Components Letters, 2008, 18, 377-379.	3.2	16
34	Simulation of SGEMP Using Particle-In-Cell Method Based on Conformal Technique. IEEE Transactions on Nuclear Science, 2019, 66, 820-826.	2.0	16
35	A Three-Dimensional HIE-PSTD Scheme for Simulation of Thin Slots. IEEE Transactions on Electromagnetic Compatibility, 2013, 55, 1239-1249.	2.2	15
36	Overmoded subterahertz surface wave oscillator with pure TM01 mode output. Physics of Plasmas, 2016, 23, .	1.9	15

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37	A continuous-wave clinotron at 0.26 THz with sheet electron beam. Physics of Plasmas, 2017, 24, 033105.	1.9	15
38	Simulation of multipactor on the rectangular grooved dielectric surface. Physics of Plasmas, 2015, 22, .	1.9	14
39	Novel high-power subterahertz-range radial surface wave oscillator. Physics of Plasmas, 2015, 22, 063114.	1.9	13
40	Empirical Formula of Effective Coupling Length for Transmission Lines Illuminated by E1 HEMP. IEEE Transactions on Electromagnetic Compatibility, 2016, 58, 581-587.	2.2	12
41	Using WCS-FDTD method to simulate various small aperture-coupled metallic enclosures. Microwave and Optical Technology Letters, 2007, 49, 1852-1858.	1.4	11
42	A high-order mode extended interaction oscillator operating in the Y band. Physics of Plasmas, 2018, 25, .	1.9	11
43	Calculation of Characteristic Time of Space Charge Limited Effect of SGEMP. IEEE Transactions on Nuclear Science, 2020, 67, 818-822.	2.0	11
44	SPICE Model of a Single Twisted-Wire Pair Illuminated by a Plane Wave in Free Space. IEEE Transactions on Electromagnetic Compatibility, 2015, 57, 574-583.	2.2	10
45	Mode competition and selection in overmoded surface wave oscillator. Physics of Plasmas, 2016, 23, .	1.9	10
46	Two Approximate Crankâ€“Nicolson Finite -Difference Time-Domain Method for TE_z Waves. IEEE Transactions on Antennas and Propagation, 2009, 57, 3375-3378.	5.1	9
47	A 0.14 THz relativistic coaxial overmoded surface wave oscillator with metamaterial slow wave structure. Physics of Plasmas, 2014, 21, 123102.	1.9	9
48	The polarization characteristics of ELF/VLF waves generated via HF heating experiments of the ionosphere by EISCAT. Physics of Plasmas, 2018, 25, 092902.	1.9	9
49	Experimental comparisons between AM and BW modulation heating excitation of ELF/VLF waves at EISCAT. Physics of Plasmas, 2019, 26, 082901.	1.9	9
50	An ADER discontinuous Galerkin method with local time-stepping for transient electromagnetics. Computer Physics Communications, 2018, 229, 106-115.	7.5	8
51	Simulation of High-Altitude Nuclear Electromagnetic Pulse Using a Modified Model of Scattered Gamma. IEEE Transactions on Nuclear Science, 2020, 67, 2474-2480.	2.0	8
52	Efficient Evaluation of Multiconductor Transmission Lines With Random Translation Over Ground Under a Plane Wave. IEEE Transactions on Electromagnetic Compatibility, 2014, 56, 1623-1629.	2.2	7
53	An Electrooptothermal-Coupled Circuit-Level Model for VCSELs Under Pulsed Condition. IEEE Transactions on Industrial Electronics, 2019, 66, 1315-1324.	7.9	7
54	Vulnerability Assessment of a Multistate Component for IEMI Based on a Bayesian Method. IEEE Transactions on Electromagnetic Compatibility, 2019, 61, 467-475.	2.2	7

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55	A Time-Domain Macromodel Based on the Frequency-Domain Moment Method for the Field-to-Wire Coupling. IEEE Transactions on Electromagnetic Compatibility, 2016, 58, 868-876.	2.2	5
56	Using HIE-FDTD method to simulate grapheneâ€™s interband conductivity. Journal of Electromagnetic Waves and Applications, 2017, 31, 1983-1993.	1.6	5
57	Optimum design and measurement analysisof 0.34 THz extended interaction klystron. AIP Advances, 2018, 8, .	1.3	5
58	Study of SGEMP Field-Coupling Inside and Outside Reentrant Cavity. IEEE Transactions on Electromagnetic Compatibility, 2022, 64, 1182-1189.	2.2	5
59	Implementation of connection boundary for HIEâ€FDTD method. Microwave and Optical Technology Letters, 2008, 50, 1347-1352.	1.4	4
60	Using weakly conditionally stableâ€body of revolutionâ€finiteâ€difference timeâ€domain method to simulate dielectric filmâ€coated circular waveguide. IET Microwaves, Antennas and Propagation, 2015, 9, 853-860.	1.4	4
61	Accurate model of electron beam profiles with emittance effects for pierce guns. Physics of Plasmas, 2016, 23, .	1.9	4
62	Optimization of the multi-slot cavity and drift in a 0.34 THz extended interaction klystron. Physics of Plasmas, 2016, 23, .	1.9	4
63	Novel low-voltage subterahertz-range radial backward wave oscillator. Physics of Plasmas, 2017, 24, .	1.9	4
64	Efficiency improvement of THz overmoded surface wave oscillator by circular spoof surface plasmon polaritons coupler. Physics of Plasmas, 2017, 24, .	1.9	4
65	A dispersive WCS-FDTD method for simulating graphene-based absorber. Journal of Electromagnetic Waves and Applications, 2017, 31, 2005-2015.	1.6	4
66	Performance Investigation of VCSEL-Based Voltage Probe and Its Applications to HPEM Effects Diagnosis of Embedded Systems. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 1923-1931.	2.2	4
67	A partially staggered discontinuous Galerkin method for transient electromagnetics. Journal of Computational Physics, 2019, 387, 30-44.	3.8	4
68	A Thermal Failure Model for MOSFETs Under Repetitive Electromagnetic Pulses. IEEE Access, 2020, 8, 228245-228254.	4.2	4
69	Explicit high-order exponential time integrator for discontinuous Galerkin solution of Maxwell's equations. Computer Physics Communications, 2021, 267, 108080.	7.5	3
70	Numerical Simulation of the Intermediate-Time High-Altitude Electromagnetic Pulse. IEEE Transactions on Electromagnetic Compatibility, 2022, 64, 1423-1430.	2.2	3
71	A Novel Hybrid Implicit Explicit - Pseudospectral Time Domain Method for TMz Waves. IEEE Transactions on Antennas and Propagation, 2013, 61, 3721-3727.	5.1	2
72	Optimization of relativistic backward wave oscillator with non-uniform slow wave structure and a resonant reflector. Physics of Plasmas, 2015, 22, 014502.	1.9	2

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73	Research on the effect of cathode plasma expansion on x-band relativistic backward wave oscillator using moving-boundary conformal PIC method. Physics of Plasmas, 2016, 23, 093106.	1.9	2
74	Thermal study of MOSFET under HEMP. , 2016, , .		2
75	VCSEL-Based In-Circuit Status-Monitoring and Effects-Diagnosis Method for HPEM Susceptibility Test on Digital Electronic Equipment. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 234-242.	2.2	2
76	Notice of Retraction: Model for Fields Coupling With Two Connected Transmission Lines With Different Reference Planes. IEEE Transactions on Electromagnetic Compatibility, 2018, 60, 761-767.	2.2	2
77	Stability condition of the dispersive HIEâ€FDTD method for the simulation of graphene. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2019, 32, e2536.	1.9	2
78	Space charge limited current with distributed velocity of initial electrons in planar diode. Physics of Plasmas, 2021, 28, .	1.9	2
79	Simulations of Internal Charging Effects of Artificial Radiation Belt on Dielectric Material. IEEE Transactions on Nuclear Science, 2021, 68, 1120-1128.	2.0	2
80	2D Planar PIC Simulation of Space Charge Limited Current With Geometrical Parameters, Varying Temporal-Profile and Initial Velocities. IEEE Access, 2022, 10, 28499-28508.	4.2	2
81	Simulation method of charge collection mechanism in CVD diamond detector. , 2016, , .		1
82	Study on the stability and reliability of Clinotron at Y-band. Physics of Plasmas, 2017, 24, 113108.	1.9	1
83	A Method for Accurately Characterizing Single Overmoded Circular TM01-TE11 Mode Converter. IEEE Access, 2020, 8, 113383-113391.	4.2	1
84	A Bayesian Estimation of Confidence Limits for Multi-state System Vulnerability Assessment With IEMI. IEEE Transactions on Electromagnetic Compatibility, 2022, 64, 1219-1229.	2.2	1
85	220GHz High Power Terahertz Wave Generation Based on Miniaturized Vacuum Cerenkov Device. , 2008, , .		0
86	Particle-in-cell simulation of a powerful terahertz wave generator in superradiant regime. , 2009, , .		0
87	Modeling and simulation of a powerful terahertz generator based on Cherenkov superradiance. Microwave and Optical Technology Letters, 2010, 52, 657-662.	1.4	0
88	Some acceleration techniques for antenna simulation in FDTD. , 2016, , .		0
89	Supplements to â€œA Time-Domain Macromodel Based on the Frequency-Domain Moment Method for the Field-to-Wire Couplingâ€• IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 2046-2048.	2.2	0
90	Effects of tolerance in fabrication on extended interaction klystron at 0.34 THz. , 2017, , .		0

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91	Supplements to â€œTheoretical and Experimental Study of Effective Coupling Length for Transmission Lines Illuminated by HEMPâ€. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 305-306.	2.2	0
92	Optimum design of output cavity in 0.34 THz EIK. , 2017, , .		0
93	Analysis of Modeling Scale for Multi-physics Simulation of Charge Collection Process in Diamond. , 2019, , .		0
94	Dual-frequency low-voltage subterahertz radial clinotron based on fan-shaped splitter. Physics of Plasmas, 2017, 24, .	1.9	0
95	An Unconditionally Stable FDTD Method for Simulating Graphene. , 2020, , .		0
96	Analyzing Stability Condition of the Dispersive WCS-FDTD Method for Simulating Graphene. , 2020, , .		0
97	Reconstruction method of equilibrated flux for a posteriori error estimate of elliptic problems. International Journal of Modeling, Simulation, and Scientific Computing, 0, , .	1.4	0