

# Dan Jiao

## List of Publications by Year in descending order

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218  
papers

1,484  
citations

331259

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docs citations

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times ranked

519  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fast Method for Accelerating Convergence of Iterative Partial Differential Equation Solvers by Changing System Matrix to Laplacian Counterpart. IEEE Transactions on Antennas and Propagation, 2022, 70, 1187-1197.	3.1	0
2	Method for Analyzing Bit Error Rates (BERs) of Nonlinear Circuits and Systems for High-Performance Signaling. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 732-743.	2.9	1
3	Fast $O(N \log N)$ Algorithm for Generating Rank-Minimized $H^{2,2}$ -Representation of Electrically Large Volume Integral Equations. IEEE Transactions on Antennas and Propagation, 2022, 70, 6944-6956.	3.1	4
4	Method for Accurate and Efficient Eye Diagram Prediction of Nonlinear High-Speed Links. IEEE Transactions on Electromagnetic Compatibility, 2021, 63, 1574-1583.	1.4	4
5	Nested Reduction Algorithms for Generating a Rank-Minimized $H^{2,2}$ -Matrix From FMM for Electrically Large Analysis. IEEE Transactions on Antennas and Propagation, 2021, 69, 3945-3956.	3.1	4
6	Fast Method for Accelerating Time-Domain Solutions of Ill-Conditioned Electromagnetic Problems by Changing $\text{Curl}^2$ Operator to Laplacian. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 4613-4622.	2.9	1
7	IMS Fast Method for Large-Scale Signaling Analysis of Nonlinear Circuits Including Worst-Case Eye and Bit Error Rate Analysis. , 2021, , .		1
8	Split-Field Domain Decomposition Algorithm with Fast Convergence for Electromagnetic Analysis. , 2021, , .		1
9	A One-Stage $O(N \log N)$ Algorithm for Generating Nested Low-Rank Representation of Electrically Large Volume Integral Equations. , 2021, , .		0
10	Conformal Perfectly Matched Layer for Matrix-Free Time-Domain Method in Unstructured Meshes. , 2021, , .		0
11	A Simple and Effective Method for Compressing Electrically Large Integral Operators. , 2021, , .		2
12	Minimal-Order Model for Fast Electromagnetic Analysis of On-Chip Power Grid. , 2021, , .		0
13	Implementation of Discrete Exterior Calculus in Solving the $\mathbf{A}\text{-}\Phi$ Formulation. , 2021, , .		0
14	Method for Analytically Finding the Nullspace of Stiffness Matrix for Both Zeroth-Order and Higher Order Curl-Conforming Vector Bases in Unstructured Meshes. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 456-468.	2.9	6
15	Rapid Modeling and Simulation of Integrated Circuit Layout in Both Frequency and Time Domains From the Perspective of Inverse. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 1270-1283.	2.9	11
16	Accuracy Controlled Structure-Preserving $H^2$ -Matrix-Matrix Product in Linear Complexity With Change of Cluster Bases. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 441-455.	2.9	3
17	Multiphysics Modeling and Simulation of 3-D Cu-Graphene Hybrid Nanointerconnects. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 490-500.	2.9	3
18	Symmetric Positive Semi-Definite FDTD Subgridding Algorithms in Both Space and Time for Accurate Analysis of Inhomogeneous Problems. IEEE Transactions on Antennas and Propagation, 2020, 68, 3047-3059.	3.1	13

#	ARTICLE	IF	CITATIONS
19	Fast Method for Accelerating Convergence in Iterative Solution of Frequency-Domain Partial Differential Equation Methods. , 2020, , .		3
20	Nested Reduction Algorithm for Generating $\mathcal{H}^2$ -Matrix Representation of Electrically Large Surface Integral Operators from FMM. , 2020, , .		0
21	Accurate and Stable Method for Solving Maxwell's Equations in Non-Conformal Mixed Tetrahedron and Brick Meshes. , 2020, , .		0
22	Fast Algorithm for Generating $\mathcal{H}^2$ -Representation of Electrically Large Volume Integral Equations. , 2020, , .		0
23	Fast Nested Cross Approximation Algorithm for Solving Large-Scale Electromagnetic Problems. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 3271-3283.	2.9	10
24	Blossoming Into a Professor [Women in Microwaves]. IEEE Microwave Magazine, 2019, 20, 73-75.	0.7	0
25	Non-Leaf-Level Algorithms in Structure Preserving HSS Matrix Inversion in Exact Arithmetic. , 2019, , .		0
26	Rapid Inverse Modeling of Integrated Circuit Layout in Both Frequency and Time Domain. , 2019, , .		2
27	Direct Solution of General $\mathcal{H}^2$ -Matrices With Controlled Accuracy and Concurrent Change of Cluster Bases for Electromagnetic Analysis. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 2114-2127.	2.9	7
28	Truncating Matrix-free Time-Domain Method with PML for Solving 3-D Open Region Problems. , 2019, , .		2
29	A Father Has Two Sons or a Parent Has Two Children? [Women in Engineering]. IEEE Antennas and Propagation Magazine, 2019, 61, 52-56.	1.2	2
30	Next-generation fast algorithms for electromagnetics-based design and analysis of high-performance integrated circuits, packages, and boards. , 2019, , .		0
31	First-Principles-Based Multiphysics Modeling and Simulation of On-Chip Cu-Graphene Hybrid Nanointerconnects in Comparison With Simplified Model-Based Analysis. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2019, 4, 374-382.	1.4	3
32	Multiphysics Modeling and Simulation of 3-D Cu-Graphene Hybrid Nano-Interconnects. , 2019, , .		2
33	Fast Algorithms for Converting an FMM-Based Representation of Electrically Large Integral Operators to a Minimal-Rank $\hat{\mathcal{H}}^2$ -Matrix. , 2019, , .		2
34	Linear-Complexity $\mathcal{H}^2$ -Based Direct Sparse Solver for Electromagnetic and Multiphysics Analysis. , 2019, , .		0
35	Direct Factorization of General $\hat{\mathcal{H}}^2$ -Matrices with Controlled Accuracy and Concurrent Change of Cluster Bases for Large-Scale Circuit Extraction. , 2019, , .		0
36	Multiphysics Modeling of Crosstalk Effect in Graphene-Encapsulated Cu Nano-Interconnects. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
37	Explicit Matrix-Free Time-Domain Method in Unstructured Meshes and Its Application to Stable Simulation of General Unsymmetrical Systems. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 4821-4832.	2.9	1
38	Fast Method for First-Principles-Based Parasitic Extraction of Integrated Circuit Layout. , 2019, , .		0
39	Explicit Unconditionally Stable Symmetric Positive Semi-Definite FDTD Subgridding Algorithm with Analytical Removal of Unstable Modes. , 2019, , .		0
40	An Alternative Explicit and Unconditionally Stable Time-Domain Finite-Element Method for Electromagnetic Analysis. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2018, 3, 16-28.	1.4	12
41	Multiphysics Simulation of High-Speed Graphene-Based Interconnects in Time Domain. , 2018, , .		2
42	Symmetric Positive Semi-Definite FDTD Subgridding Algorithm in Both Space and Time. , 2018, , .		2
43	Explicit and Unconditionally Stable FDTD with Analytical Method for Identifying Unstable Modes. , 2018, , .		2
44	Method for Generating a Minimal-Rank $\mathcal{H}^2$ -Matrix from FMM for Electrically Large Analysis. , 2018, , .		0
45	Quasi-Periodic Array Modeling Using Reduced Basis with H2-Matrix Algorithm. , 2018, , .		0
46	Broadband and Sparse Finite-Element Formulation Free of Low-Frequency Breakdown. , 2018, , .		1
47	Accuracy Controlled $\mathcal{H}^2$ Matrix-Matrix Product in Linear Complexity and Its Applications. , 2018, , .		0
48	Direct Solution of General H2-Matrix with Controlled Accuracy and Change of Cluster Bases for Large-Scale Electromagnetic Analysis. , 2018, , .		0
49	Matrix-Free Method for Transient Maxwell-Thermal Cosimulation in Arbitrary Unstructured Meshes. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 5439-5448.	2.9	6
50	Accuracy-Controlled and Structure-Preserved H2-Matrix-Matrix Product in Linear Complexity. , 2018, , .		1
51	Accuracy Controlled Direct Integral Equation Solver of Linear Complexity with Change of Basis for Large-Scale Interconnect Extraction. , 2018, , .		1
52	Matrix-Free Method for Maxwell-Thermal Co-Simulation in Unstructured Meshes. , 2018, , .		1
53	An Unsymmetric FDTD Subgridding Algorithm With Unconditional Stability. IEEE Transactions on Antennas and Propagation, 2018, 66, 4137-4150.	3.1	20
54	Accuracy Directly Controlled Fast Direct Solution of General $\mathcal{H}^2$ -Matrices and Its Application to Solving Electrodynamical Volume Integral Equations. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 35-48.	2.9	30

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55	Linear-complexity direct integral equation solver with explicit accuracy control for large-scale interconnect extraction. , 2018, , .		1
56	Fast and rigorous method for solving low-frequency breakdown in full-wave finite-element-based solution of general lossy problems. , 2018, , .		2
57	Time-Domain Method Having a Naturally Diagonal Mass Matrix Independent of Element Shape for General Electromagnetic Analysisâ€™2-D Formulations. IEEE Transactions on Antennas and Propagation, 2017, 65, 1202-1214.	3.1	5
58	Fast Explicit and Unconditionally Stable FDTD Method for Electromagnetic Analysis. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 2698-2710.	2.9	50
59	Fast Method for an Accurate and Efficient Nonlinear Signaling Analysis. IEEE Transactions on Electromagnetic Compatibility, 2017, 59, 1312-1319.	1.4	8
60	A general approach to ensuring the stability of unsymmetrical FDTD subgridding schemes. , 2017, , .		1
61	Accuracy directly controlled fast direct solutions of general H2-matrices and its application to electrically large electromagnetic analysis. , 2017, , .		1
62	Low-Complexity Direct and Iterative Volume Integral Equation Solvers With a Minimal-Rank $H^2$ -Representation for Large-Scale Three-Dimensional Electrodynamic Analysis. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2017, 2, 210-223.	1.4	11
63	Symmetric Positive Semidefinite FDTD Subgridding Algorithms for Arbitrary Grid Ratios Without Compromising Accuracy. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 5084-5095.	2.9	23
64	Matrix-free time-domain method for thermal analysis in unstructured meshes. , 2017, , .		0
65	Analytical method for finding the nullspace of stiffness matrix in the finite element method. , 2017, , .		2
66	A symmetric positive semi-definite 3-D FDTD subgridding algorithm for arbitrary grid settings without compromising accuracy. , 2017, , .		0
67	Hybrid cross approximation for electric field integral equation based scattering analysis. , 2017, , .		5
68	A symmetric positive semi-definite FDTD subgridding algorithm for arbitrary grid ratios with uncompromised accuracy. , 2017, , .		1
69	A direct synthesis algorithm having a broad range of validity for electromagnetic design. , 2017, , .		0
70	Accuracy directly controlled fast direct solutions of general h2-matrices. , 2017, , .		0
71	Minimal-rank HSS-representation with diagonal coupling matrices and sparse transfer matrices for solving electrically-large integral equations. , 2016, , .		0
72	Exact-arithmetic HSS-inversion algorithm for fast direct solution of electrically large volume integral equations. , 2016, , .		0

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73	Symmetric positive-definite representation of frequency-domain finite-element system matrix for efficient electromagnetic analysis. , 2016, , .		0
74	Solution to the low-frequency breakdown in full-wave finite-element based analysis of general lossy problems. , 2016, , .		1
75	New HSS-factorization and inversion algorithms with exact arithmetic for efficient direct solution of large-scale volume integral equations. , 2016, , .		5
76	Matrix-Free Time-Domain Method for General Electromagnetic Analysis in 3-D Unstructured Meshesâ€”Modified-Basis Formulation. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 2371-2382.	2.9	4
77	Explicit and unconditionally stable FDTD method without eigenvalue solutions. , 2016, , .		5
78	Matrix-free time-domain method with unconditional stability in unstructured meshes. , 2016, , .		0
79	Linear-complexity direct finite-element solver based shape design of electromagnetic structures. , 2016, , .		1
80	An alternative explicit and unconditionally stable time-domain finite-element method for analyzing general lossy electromagnetic problems. , 2016, , .		3
81	Direct synthesis algorithms for time-domain inverse design of electromagnetic structures with nonlinear circuits. , 2016, , .		1
82	Fast algorithm for nonlinear signaling analysis. , 2016, , .		2
83	Formulations of an accurate and stable matrix-free time-domain method in 2-D unstructured meshes. , 2015, , .		1
84	Linear-complexity direct finite element solver for irregular meshes and matrices without mesh. , 2015, , .		1
85	A new explicit and unconditionally stable FDTD method for analyzing general lossy problems. , 2015, , .		1
86	Unconditionally stable explicit time-domain methods. , 2015, , .		0
87	Accurate and stable matrix-free time-domain method independent of element shape for general electromagnetic analysis. , 2015, , .		1
88	Fast Structure-Aware Direct Time-Domain Finite-Element Solver for the Analysis of Large-Scale On-Chip Circuits. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2015, 5, 1477-1487.	1.4	4
89	Alternative Method for Making Explicit FDTD Unconditionally Stable. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 4215-4224.	2.9	33
90	Accurate matrix-free time-domain method with traditional vector bases in unstructured meshes. , 2015, , .		2

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91	Minimal-rank $\times 2^{10}$ -matrix-based iterative and direct volume integral equation solvers for large-scale scattering analysis. , 2015, , .		2
92	A new explicit and unconditionally stable time-domain finite-element method. , 2015, , .		1
93	A Linear Complexity Direct Volume Integral Equation Solver for Full-Wave 3-D Circuit Extraction in Inhomogeneous Materials. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 897-912.	2.9	23
94	An alternative method for making an explicit FDTD unconditionally stable. , 2015, , .		4
95	Direct Finite-Element Solver of Linear Complexity for Large-Scale 3-D Electromagnetic Analysis and Circuit Extraction. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 3066-3080.	2.9	18
96	On the low-frequency breakdown of FDTD. , 2015, , .		2
97	An Explicit and Unconditionally Stable FDTD Method for the Analysis of General 3-D Lossy Problems. IEEE Transactions on Antennas and Propagation, 2015, 63, 4003-4015.	3.1	15
98	Accurate matrix-free time-domain method in unstructured meshes. , 2015, , .		3
99	Fast structure-aware direct time-domain finite element solver for large-scale on-die power grid simulation. , 2015, , .		0
100	Accurate matrix-free time-domain method in three-dimensional unstructured meshes. , 2015, , .		2
101	Accurate and Stable Matrix-Free Time-Domain Method in 3-D Unstructured Meshes for General Electromagnetic Analysis. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 4201-4214.	2.9	26
102	A Linear-Complexity Finite-Element-Based Eigenvalue Solver for Efficient Analysis of 3-D On-Chip Integrated Circuits. IEEE Microwave and Wireless Components Letters, 2014, 24, 833-835.	2.0	1
103	Explicit and Unconditionally Stable Time-Domain Finite-Element Method with a More Than $\times 10^3$ Speedup. Electromagnetics, 2014, 34, 199-209.	0.3	13
104	A matrix-free time-domain method independent of element shape for electromagnetic analysis. , 2014, , .		3
105	A mass-matrix based frequency-domain finite-element method accelerated by a reduced eigenspace method for circuit modeling. , 2014, , .		0
106	Linear-complexity direct finite element solver accelerated for many right hand sides. , 2014, , .		5
107	A simple implicit and unconditionally stable FDTD method by changing only one time instant. , 2014, , .		5
108	A linear complexity $\times 2^2$ -matrix based direct volume integral solver for broadband 3-D circuit extraction in inhomogeneous materials. , 2014, , .		0

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109	Fast algorithm for generating a minimal-order model of a general lossy electromagnetic problem. , 2014, , .		2
110	Structure-aware time-domain finite-element method for efficient simulation of VLSI circuits. , 2014, , .		2
111	An $O(N)$ direct volume IE solver with a rank-minimized $\mathcal{H}^2$ -representation for large-scale 3-D circuit extraction in inhomogeneous materials. , 2014, , .		0
112	An Explicit and Unconditionally Stable FDTD Method for Electromagnetic Analysis. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 2538-2550.	2.9	66
113	Diagonal-preserving explicit and unconditionally stable FDTD method for analyzing general lossy electromagnetic problems. , 2014, , .		1
114	Solution of the Electric Field Integral Equation When It Breaks Down. IEEE Transactions on Antennas and Propagation, 2014, 62, 4122-4134.	3.1	27
115	An explicit and unconditionally stable FDTD method for the analysis of general 3-D lossy problems. , 2014, , .		5
116	$O(N)$ iterative and $O(N \log N)$ direct volume integral equation solvers for large-scale electrodynamic analysis. , 2014, , .		12
117	Direct finite-element solver of linear complexity for system-level signal and power integrity co-analysis. , 2014, , .		0
118	Linear-Complexity Direct and Iterative Integral Equation Solvers Accelerated by a New Rank-Minimized $\mathcal{H}^2$ -Representation for Large-Scale 3-D Interconnect Extraction. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 2792-2805.	2.9	20
119	Fast $\mathcal{H}$ -Matrix-Based Direct Integral Equation Solver With Reduced Computational Cost for Large-Scale Interconnect Extraction. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 289-298.	1.4	29
120	A Deterministic-Solution Based Fast Eigenvalue Solver With Guaranteed Convergence for Finite-Element Based 3-D Electromagnetic Analysis. IEEE Transactions on Antennas and Propagation, 2013, 61, 3701-3711.	3.1	2
121	A New Volume Integral Formulation for Broadband 3-D Circuit Extraction in Inhomogeneous Materials With and Without External Electromagnetic Fields. IEEE Transactions on Microwave Theory and Techniques, 2013, 61, 4302-4312.	2.9	29
122	Layered $\mathcal{H}$ -Matrix Based Inverse and LU Algorithms for Fast Direct Finite-Element-Based Computation of Electromagnetic Problems. IEEE Transactions on Antennas and Propagation, 2013, 61, 1273-1284.	3.1	13
123	Minimal-order circuit model based fast electromagnetic simulation. , 2013, , .		7
124	Solution to the $\mathcal{H}$ ;high $\mathcal{H}$ ; frequency breakdown in EFIE. , 2013, , .		0
125	An analytical approach to the low-frequency breakdown of the right hand side and scattered field computation in EFIE. , 2013, , .		3
126	Direct Matrix Solution of Linear Complexity for Surface Integral-Equation-Based Impedance Extraction of Complicated 3-D Structures. Proceedings of the IEEE, 2013, 101, 372-388.	16.4	35



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127	The frequency band where the solution to Maxwell's equations is unknown &#x2014;A challenge facing the analysis of multiscale problems and its solution. , 2013, , .		0
128	$\hat{\mathbf{A}}^{\sup 2}$ -based fast volume integral equation solver for electrodynamic analysis. IET Microwaves, Antennas and Propagation, 2013, 7, 1145-1153.	0.7	5
129	A new volume integral equation formulation for analyzing 3-D circuits in inhomogeneous dielectrics exposed to external fields. , 2013, , .		2
130	A rigorous divide-and-conquer algorithm for fast DC-mode extraction. , 2013, , .		3
131	Theoretical Study on the Rank of Integral Operators for Broadband Electromagnetic Modeling From Static to Electrodynamic Frequencies. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2013, 3, 2113-2126.	1.4	38
132	Explicit and unconditionally stable time-domain finite-element method with a more than &#x201C;optimal&#x201D; speedup. , 2013, , .		1
133	A new volume integral formulation for fullwave extraction of 3-D circuits in inhomogeneous dielectrics exposed to external fields. , 2013, , .		1
134	A linear complexity direct finite element solver for large-scale 3-D electromagnetic analysis. , 2013, , .		4
135	An explicit and unconditionally stable FDTD method for 3-D electromagnetic analysis. , 2013, , .		13
136	A theoretical study on the rank's dependence with electric size of the inverse finite element matrix for large-scale electrodynamic analysis. , 2012, , .		8
137	A novel volume integral formulation for wideband impedance extraction of arbitrarily-shaped 3-D lossy conductors in multiple dielectrics. , 2012, , .		2
138	Explicit Time-Domain Finite-Element Method Stabilized for an Arbitrarily Large Time Step. IEEE Transactions on Antennas and Propagation, 2012, 60, 5240-5250.	3.1	98
139	A fast $O(1)$ solution for eliminating the low-frequency breakdown problem of fullwave solvers. , 2012, , .		0
140	A deterministic-solution based fast quadratic eigenvalue solver for 3-D finite element analysis. , 2012, , .		0
141	Fast $H^{\sup 2}$ -based integral equation solvers with an optimal $H^{\sup 2}$ -representation for large-scale electromagnetic analysis. , 2012, , .		0
142	A fast direct finite element solver for large-scale 3-D electromagnetic analysis. , 2012, , .		1
143	A linear-complexity direct integral equation solver accelerated by a new rank-minimized $H^{\sup 2}$ -representation for large-scale 3-D interconnect extraction. , 2012, , .		0
144	A theoretical proof on the error-bounded low-rank representation of integral operators for large-scale 3-D electrodynamic analysis. , 2012, , .		1

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145	A minimal order model from zero to high frequencies and its fast generation for finite-element based 3-d electromagnetic analysis. , 2012, , .		2
146	From Layout Directly to Simulation: A First-Principle-Guided Circuit Simulator of Linear Complexity and Its Efficient Parallelization. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 687-699.	1.4	17
147	Fast Full-Wave Solution That Eliminates the Low-Frequency Breakdown Problem in a Reduced System of Order One. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 1871-1881.	1.4	16
148	A fast and accurate $O(1)$ solution to the low-frequency breakdown problem of fullwave solvers. , 2012, , .		0
149	A Quadratic Eigenvalue Solver of Linear Complexity for 3-D Electromagnetics-Based Analysis of Large-Scale Integrated Circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2012, 31, 380-390.	1.9	11
150	A Rigorous Solution to the Low-Frequency Breakdown in Full-Wave Finite-Element-Based Analysis of General Problems Involving Inhomogeneous Lossless/Lossy Dielectrics and Nonideal Conductors. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 3294-3306.	2.9	31
151	Dense Matrix Inversion of Linear Complexity for Integral-Equation-Based Large-Scale 3-D Capacitance Extraction. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 2404-2421.	2.9	44
152	Parallel Time-Domain Finite-Element Simulator of Linear Speedup and Electromagnetic Accuracy for the Simulation of Dielectric Package Interaction. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2011, 1, 752-760.	1.4	1
153	An explicit time-domain finite-element method that is unconditionally stable. , 2011, , .		4
154	An $O(N^2)$ -based direct integral equation solver of linear complexity for full-wave extraction of 3-D structures in multiple dielectrics. , 2011, , .		0
155	A fast frequency sweep algorithm with controlled error and bandwidth for finite-element-based analysis of integrated circuits. , 2011, , .		0
156	An explicit inverse based fast direct volume integral equation solver for electromagnetic analysis. , 2011, , .		0
157	An $O(N^2)$ -based linear-complexity solution of surface integral equations for 3-D impedance extraction. , 2011, , .		0
158	A rigorous solution to the low-frequency breakdown in the electric field integral equation. , 2011, , .		3
159	A rigorous solution to the low-frequency breakdown in full-wave finite-element-based analysis of general problems involving inhomogeneous lossy dielectrics and non-ideal conductors. , 2011, , .		0
160	An explicit and unconditionally stable time-domain finite-element method of linear complexity for electromagnetics-based simulation of 3-D global interconnect network. , 2011, , .		7
161	An extraction-free circuit simulator of linear complexity guided by electromagnetics-based first principles. , 2011, , .		0
162	A direct domain-decomposition of linear complexity for time-domain finite-element based analysis of multiscale structures and materials in integrated circuits. , 2011, , .		0

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163	An $H$ -matrix parametric cascading based fast direct finite-element solver for large-scale circuit extraction. , 2011, , .		0
164	Eliminating the Low-Frequency Breakdown Problem in 3-D Full-Wave Finite-Element-Based Analysis of Integrated Circuits. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 2633-2645.	2.9	7
165	Layered H-matrix based direct matrix inversion of significantly reduced complexity for finite-element-based large-scale electromagnetic analysis. , 2010, , .		0
166	A fast 3-D eigenvalue solver for finite-element-based analysis of multilayered integrated circuits. , 2010, , .		1
167	Electromagnetics-based co-simulation of linear network and nonlinear circuits accelerated by time-domain orthogonal finite-element reduction-recovery method. , 2010, , .		0
168	A mass-matrix solution based frequency-domain finite-element method. , 2010, , .		0
169	Existence of $H$ -Matrix Representations of the Inverse Finite-Element Matrix of Electrodynamic Problems and $H$ -Based Fast Direct Finite-Element Solvers. IEEE Transactions on Microwave Theory and Techniques, 2010, , .	2.9	12
170	A new $H^2$ -matrix-based representation of electrodynamic systems with minimized rank and prescribed accuracy. , 2010, , .		0
171	A theoretically rigorous solution for fundamentally eliminating the low-frequency breakdown problem in finite-element-based full-wave analysis. , 2010, , .		3
172	Multiscale Orthogonal Finite-Element Reduction-Recovery method for transient analysis of integrated circuits and package problems. , 2010, , .		0
173	A complexity-reduced H-matrix based direct integral equation solver with prescribed accuracy for large-scale electrodynamic analysis. , 2010, , .		5
174	Hierarchical Finite-Element Reduction-Recovery Method for Large-Scale Transient Analysis of High-Speed Integrated Circuits. IEEE Transactions on Advanced Packaging, 2010, 33, 276-284.	1.7	8
175	Fast Iterative Solution Algorithms in the Frequency-Domain Layered Finite Element Method for Analyzing Integrated Circuits. IEEE Transactions on Advanced Packaging, 2010, 33, 524-533.	1.7	2
176	An LU Decomposition Based Direct Integral Equation Solver of Linear Complexity and Higher-Order Accuracy for Large-Scale Interconnect Extraction. IEEE Transactions on Advanced Packaging, 2010, 33, 794-803.	1.7	20
177	A Theoretically Rigorous Full-Wave Finite-Element-Based Solution of Maxwell's Equations From dc to High Frequencies. IEEE Transactions on Advanced Packaging, 2010, 33, 1043-1050.	1.7	36
178	Foreword Special Section on Recent Progress in Electrical Modeling and Simulation of High-Speed ICs and Packages. IEEE Transactions on Advanced Packaging, 2010, 33, 758-759.	1.7	0
179	An electromagnetics-based parallel transient simulator of linear complexity for the analysis of very large-scale integrated circuits and packages. , 2010, , .		1
180	Dense Matrix Factorization of Linear Complexity for Impedance Extraction of Large-Scale 3-D Integrated Circuits. , 2010, , .		0

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181	A rigorous method for fundamentally eliminating the low-frequency breakdown in full-wave finite-element-based analysis: Combined dielectric-conductor case. , 2010, , .		2
182	An $\mathcal{H}^2$ -Matrix-Based Integral-Equation Solver of Reduced Complexity and Controlled Accuracy for Solving Electrodynamical Problems. IEEE Transactions on Antennas and Propagation, 2009, 57, 3147-3159.	3.1	72
183	An $\mathcal{H}^2$ -matrix-based direct integral-equation solver of linear complexity for solving electrodynamic problems. , 2009, , .		2
184	Performance analysis of the H-matrix-based Fast Direct Solver for finite-element-based analysis of electromagnetic problems. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	7
185	A direct integral-equation solver of linear complexity for large-scale 3D capacitance and impedance extraction. , 2009, , .		37
186	A Linear-Time Complex-Valued Eigenvalue Solver for Full-Wave Analysis of Large-Scale On-Chip Interconnect Structures. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 2021-2029.	2.9	5
187	Co-simulation of linear electromagnetic structures and non-linear devices in the time-domain finite-element reduction-recovery method. , 2009, , .		3
188	A direct finite-element-based solver of significantly reduced complexity for solving large-scale electromagnetic problems. , 2009, , .		7
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