

Madhavan Swaminathan

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

176
papers

1,825
citations

21
h-index

34
g-index

232
ext. papers

2,525
ext. citations

2.1
avg, IF

5.19
L-index

#	Paper	IF	Citations
176	HilbertNet: A Probabilistic Machine Learning Framework for Frequency Response Extrapolation of Electromagnetic Structures. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2021 , 1-13	2	
175	Multiphysics Challenges and Opportunities for Integrated Voltage Regulators in Power Delivery Architectures. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2021 , 1-1	1.7	
174	Characterization of ABF/Glass/ABF Substrates for mmWave Applications. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2021 , 11, 384-394	1.7	5
173	Laminated Glass-Based, Compact Inline Stepped-Impedance Resonator Bandpass Filters for 5G New Radio Modules. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2021 , 11, 708-711	1.7	5
172	Clock Delivery Network Design and Analysis for Interposer-Based 2.5-D Heterogeneous Systems. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2021 , 29, 605-616	2.6	
171	Design Space Extrapolation for Power Delivery Networks using a Transposed Convolutional Net 2021 ,		2
170	Augmented finite element method (AFEM) for the linear steady-state thermal and thermomechanical analysis of heterogeneous integration architectures 2021 ,		1
169	. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2021 , 63, 246-258	2	3
168	Chiplet/Interposer Co-Design for Power Delivery Network Optimization in Heterogeneous 2.5D ICs. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2021 , 1-1	1.7	1
167	High-density low-loss millimeter-wave package interconnects with the impact of dielectric-material surface roughness. <i>Applied Physics Letters</i> , 2021 , 119, 134103	3.4	3
166	A Bit-Time-Dependent Model of I/O Drivers for Overclocking Analysis. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2020 , 28, 1630-1637	2.6	
165	Determining worst-case eye height in low BER channels using Bayesian optimization 2020 ,		4
164	Mechanical and High-Frequency Electrical Study of Printed, Flexible Antenna Under Deformation. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2020 , 10, 1088-1100	1.7	4
163	An Inductive Voltage Regulator With Overdrive Tracking Across Input Voltage in Cascoded Power Stage. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2020 , 67, 3083-3087	3.5	
162	Process design kit and design automation for flexible hybrid electronics. <i>Journal of the Society for Information Display</i> , 2020 , 28, 241-251	2.1	0
161	Behavioral Modeling of Tunable I/O Drivers With Preemphasis Including Power Supply Noise. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2020 , 28, 233-242	2.6	7
160	Automated I/O Library Generation for Interposer-Based System-in-Package Integration of Multiple Heterogeneous Dies. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2020 , 10, 111-122	1.7	1

159	A Non-Random Exploration based Method for the optimization of Capacitors in Power Delivery Networks 2020 ,			2
158	Analysis of Parameter Variability in an Integrated Wireless Power Transfer System via Partial Least-Squares Regression. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2020 , 10, 1795-1802	1.7		7
157	Electrical Circuit Modeling and Validation of Through-Silicon Vias Embedded in a Silicon Microfluidic Pin-Fin Heat Sink Filled With Deionized Water. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2020 , 10, 1337-1347	1.7		3
156	Causal and Passive Parameterization of S-Parameters Using Neural Networks. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2020 , 68, 4290-4304	4.1		9
155	Broadband and Miniaturized Antenna-in-Package (AiP) Design for 5G Applications. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2020 , 19, 1963-1967	3.8		8
154	Demystifying Machine Learning for Signal and Power Integrity Problems in Packaging. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2020 , 10, 1276-1295	1.7		17
153	Architecture, Chip, and Package Codesign Flow for Interposer-Based 2.5-D Chiplet Integration Enabling Heterogeneous IP Reuse. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2020 , 28, 2424-2437	2.6		7
152	Design Flow for Active Interposer-Based 2.5-D ICs and Study of RISC-V Architecture With Secure NoC. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2020 , 10, 2047-2060	1.7		2
151	Computation of Maximum Voltage Droop in Power Delivery Networks. <i>IEEE Access</i> , 2020 , 8, 197875-197884	3.9		1
150	Open and Closed Loop Inductors for High-Efficiency System-on-Package Integrated Voltage Regulators 2019 ,			5
149	Repeater Insertion to Reduce Delay and Power in Copper and Carbon Nanotube-Based Nanointerconnects. <i>IEEE Access</i> , 2019 , 7, 13622-13633	3.5		6
148	High-Dimensional Global Optimization Method for High-Frequency Electronic Design. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2019 , 67, 2128-2142	4.1		55
147	16-4: Invited Paper: Process Design Kit and Design Automation for Flexible Hybrid Electronics. <i>Digest of Technical Papers SID International Symposium</i> , 2019 , 50, 217-220	0.5		1
146	A Hybrid Methodology for Jitter and Eye Estimation in High-Speed Serial Channels Using Polynomial Chaos Surrogate Models. <i>IEEE Access</i> , 2019 , 7, 53629-53640	3.5		6
145	Machine Learning-Based System Optimization and Uncertainty Quantification for Integrated Systems 2019 , 505-536			
144	Modeling of Voltage-Controlled Oscillators Including I/O Behavior Using Augmented Neural Networks. <i>IEEE Access</i> , 2019 , 7, 38973-38982	3.5		10
143	Behavioral Modeling of Pre-emphasis Drivers Including Power Supply Noise Using Neural Networks 2019 ,			2
142	A Spectral Convolutional Net for Co-Optimization of Integrated Voltage Regulators and Embedded Inductors 2019 ,			7

141	Inverse Design of Transmission Lines with Deep Learning 2019 ,		4
140	Impedance Response Extrapolation of Power Delivery Networks using Recurrent Neural Networks 2019 ,		4
139	Machine Learning and Uncertainty Quantification for Surrogate Models of Integrated Devices With a Large Number of Parameters. <i>IEEE Access</i> , 2019 , 7, 4056-4066	3.5	41
138	Design and Characterization of Inductors for Self-Powered IoT Edge Devices. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2018 , 8, 1263-1271	1.7	11
137	A Global Bayesian Optimization Algorithm and Its Application to Integrated System Design. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2018 , 26, 792-802	2.6	46
136	A Passive Equalizer Design for Shielded Differential Through-Silicon Vias in 3-D IC. <i>IEEE Microwave and Wireless Components Letters</i> , 2018 , 28, 768-770	2.6	9
135	Reverse Power Delivery Network for Wireless Power Transfer. <i>IEEE Microwave and Wireless Components Letters</i> , 2018 , 28, 624-626	2.6	1
134	Preliminary Application of Deep Learning to Design Space Exploration 2018 ,		4
133	A Bayesian Framework for Optimizing Interconnects in High-Speed Channels 2018 ,		12
132	Bayesian Active Learning for Uncertainty Quantification of High Speed Channel Signaling 2018 ,		7
131	A Compact Passive Equalizer Design for Differential Channels in TSV-Based 3-D ICs. <i>IEEE Access</i> , 2018 , 6, 75278-75292	3.5	4
130	Modeling and Performance Analysis of Shielded Differential Annular Through-Silicon Via (SD-ATSV) for 3-D ICs. <i>IEEE Access</i> , 2018 , 6, 33238-33250	3.5	5
129	Enhancing the Bandwidth of Low-Dropout Regulators Using Power Transmission Lines for High-Speed I/Os. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2017 , 7, 533-543	1.7	3
128	Application of Machine Learning for Optimization of 3-D Integrated Circuits and Systems. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2017 , 25, 1856-1865	2.6	34
127	Wireless power transfer integrated board for low power IoT applications 2017 ,		3
126	Recent advances in electromagnetic compatibility of 3D-ICs [Part II. <i>IEEE Electromagnetic Compatibility Magazine</i> , 2016 , 5, 65-74	0.4	3
125	A New Approach for Magneto-Static Hysteresis Behavioral Modeling. <i>IEEE Transactions on Magnetics</i> , 2016 , 52, 1-14	2	3
124	Surface Roughness Modeling of Substrate Integrated Waveguide in D-Band. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2016 , 64, 1209-1216	4.1	17

123	Combined integral equation based circuit modeling of interconnections in electronic packaging 2016 ,		1
122	Preliminary application of machine-learning techniques for thermal-electrical parameter optimization in 3-D IC 2016 ,		6
121	Transient Simulation of Multiscale Structures Using the Nonconformal Domain Decomposition Laguerre-FDTD Method. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2015 , 5, 532-540	1.7	8
120	FDFD Nonconformal Domain Decomposition Method for the Electromagnetic Modeling of Interconnections in Silicon Interposer. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2015 , 57, 496-504	2	1
119	Transient Analysis of TSV Equivalent Circuit Considering Nonlinear MOS Capacitance Effects. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2015 , 57, 1216-1225	2	30
118	Application of a New Power Distribution Scheme for Complex Printed Circuit Boards for High-Speed Signaling. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2015 , 5, 806-817	1.7	3
117	Enabling antenna design with nano-magnetic materials using machine learning 2015 ,		7
116	Analysis, Design, and Prototyping of Temperature Resilient Clock Distribution Networks for 3-D ICs. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2015 , 5, 1669-1678	1.7	7
115	A Simple Technique for Power Distribution With Better Characteristics Than Electromagnetic Bandgap Structures. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2015 , 5, 797-805	1.7	1
114	Electrical/Thermal Cosimulation With Nonconformal Domain Decomposition Method for Multiscale 3-D Integrated Systems. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2014 , 4, 588-601	1.7	19
113	FDFD Modeling of Signal Paths With TSVs in Silicon Interposer. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2014 , 4, 708-717	1.7	8
112	Minimizing coupling of power supply noise between digital and RF circuit blocks in mixed signal systems 2014 ,		2
111	Modeling of Power/Ground Planes Using Triangular Elements. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2014 , 4, 291-302	1.7	2
110	An alternate power distribution scheme with superior noise suppression characteristics than EBG 2014 ,		2
109	Characterization of alternate power distribution methods for 3D integration 2014 ,		3
108	System-Level Thermal Modeling Using Nonconformal Domain Decomposition and Model-Order Reduction. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2014 , 4, 66-76	1.7	3
107	One-Port Resonance-Based Test Technique for RF Interconnect and Filters Embedded in RF Substrates. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2013 , 3, 236-246	1.7	1
106	Skin-Effect-Incorporated Transient Simulation Using the Laguerre-FDTD Scheme. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2013 , 61, 4029-4039	4.1	37

105	A Rigorous Model for Through-Silicon Vias With Ohmic Contact in Silicon Interposer. <i>IEEE Microwave and Wireless Components Letters</i> , 2013 , 23, 385-387	2.6	15
104	Pseudo-balanced Signaling Using Power Transmission Lines for Parallel I/O Links. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2013 , 55, 315-327	2	2
103	Implementation of power transmission lines to field programmable gate array ICs for managing signal and power integrity 2013 ,		2
102	Constant Voltage-Based Power Delivery Scheme for 3-D ICs and Interposers. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2013 , 3, 1907-1916	1.7	5
101	Do we need wide flits in Networks-on-Chip? 2013 ,		21
100	Electrical-thermal modeling of through-silicon via (TSV) arrays in interposer. <i>International Journal of Numerical Modelling: Electronic Networks, Devices and Fields</i> , 2013 , 26, 545-559	1	10
99	Timing analysis for thermally robust clock distribution network design for 3D ICs 2013 ,		2
98	Memory efficient Laguerre-FDTD scheme for dispersive media 2013 ,		1
97	Suppression of Vertical Electromagnetic Coupling in Multilayer Packages. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2012 , 2, 418-429	1.7	1
96	Nanomagnetics for High-Performance, Miniaturized Power, and RF Components [Nanopackaging]. <i>IEEE Nanotechnology Magazine</i> , 2012 , 6, 18-23	1.7	7
95	Fast electrical-thermal co-simulation using multigrid method for 3D integration 2012 ,		4
94	Electromagnetic modeling of non-uniform through-silicon via (TSV) interconnections 2012 ,		9
93	Consideration of MOS capacitance effect in TSV modeling based on cylindrical modal basis functions 2012 ,		3
92	New power delivery scheme for 3D ICs to minimize simultaneous switching noise for high speed I/Os 2012 ,		4
91	Skin effect modeling of interconnects using the Laguerre-FDTD scheme 2012 ,		5
90	A New Self-Healing Methodology for RF Amplifier Circuits Based on Oscillation Principles. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2012 , 20, 1835-1848	2.6	31
89	Extraction of electrical properties of nanomagnetic materials through meander-shaped inductor and inverted-F antenna structures 2012 ,		4
88	Rigorous Electrical Modeling of Through Silicon Vias (TSVs) With MOS Capacitance Effects. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2011 , 1, 893-903	1.7	63

87	Decoupling Capacitor Placement in Power Delivery Networks Using MFEM. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2011 , 1, 1651-1661	1.7	29
86	Transient Analysis of CMOS-Gate-Driven π RLGC π Interconnects Based on FDTD. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2011 , 30, 574-583	2.5	43
85	A Novel Compact Electromagnetic Bandgap Structure in Power Plane for Wideband Noise Suppression and Low Radiation. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2011 , 53, 996-1004	2	29
84	Constant Current Power Transmission Line-Based Power Delivery Network for Single-Ended Signaling. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2011 , 53, 1050-1064	2	15
83	An effective modeling method for multi-scale and multilayered power/ground plane structures 2011 ,		2
82	Coupling analysis of through-silicon via (TSV) arrays in silicon interposers for 3D systems 2011 ,		17
81	Design of power delivery networks using power transmission lines and pseudo-balanced signaling for multiple I/Os 2011 ,		3
80	Enhancing Signal and Power Integrity Using Double Sided Silicon Interposer. <i>IEEE Microwave and Wireless Components Letters</i> , 2011 , 21, 598-600	2.6	9
79	Electrical-Thermal Co-Simulation of 3D Integrated Systems With Micro-Fluidic Cooling and Joule Heating Effects. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2011 , 1, 234-246	1.7	60
78	Polymers for RF Apps. <i>IEEE Microwave Magazine</i> , 2011 , 12, 62-77	1.2	8
77	Pseudo-balanced signaling using power transmission lines for parallel links 2011 ,		5
76	A Laguerre-FDTD Formulation for Frequency-Dependent Dispersive Materials. <i>IEEE Microwave and Wireless Components Letters</i> , 2011 , 21, 225-227	2.6	20
75	Low-Noise Power Delivery Network Design Using Power Transmission Line for Mixed-Signal Testing 2011 ,		2
74	Constant current Power Transmission Line based power delivery network for single-ended signaling with reduced simultaneous switching noise 2011 ,		4
73	Characterization of Next Generation Thin Low-K and Low-Loss Organic Dielectrics From 1 to 110 GHz. <i>IEEE Transactions on Advanced Packaging</i> , 2010 , 33, 180-188		8
72	Noise Isolation in Mixed-Signal Systems Using Alternating Impedance Electromagnetic Bandgap (AI-EBG) Structure-Based Power Distribution Network (PDN). <i>IEEE Transactions on Advanced Packaging</i> , 2010 , 33, 2-12		28
71	Electromagnetic Modeling of Through-Silicon Via (TSV) Interconnections Using Cylindrical Modal Basis Functions. <i>IEEE Transactions on Advanced Packaging</i> , 2010 , 33, 804-817		75
70	Low-Frequency and Low-Cost Test Methodology for Integrated RF Substrates. <i>IEEE Transactions on Advanced Packaging</i> , 2010 , 33, 669-680		2

69	Preconditioned Second-Order Multi-Point Passive Model Reduction for Electromagnetic Simulations. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2010 , 58, 2856-2866	4.1	6
68	RF substrates yield improvement using package-chip co-design and on-chip calibration 2010 ,		4
67	DC IR drop solver for large scale 3D power delivery networks 2010 ,		6
66	Simulation of power delivery networks with Joule heating effects for 3D integration 2010 ,		7
65	Low-Cost Specification Based Testing of RF Amplifier Circuits using Oscillation Principles. <i>Journal of Electronic Testing: Theory and Applications (JETTA)</i> , 2010 , 26, 13-24	0.7	5
64	Designing and Modeling for Power Integrity. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2010 , 52, 288-310	2	68
63	Fast memory-efficient full-wave 3D simulation of power planes 2009 ,		3
62	A novel self-healing methodology for RF Amplifier circuits based on oscillation principles 2009 ,		16
61	Electrical-thermal co-analysis for power delivery networks in 3D system integration 2009 ,		15
60	Polarization mode basis functions for modeling insulator-coated through-silicon via (TSV) interconnections 2009 ,		12
59	Simple Equivalent Circuit Model of a Stripline in Inhomogeneous Dielectric Media. <i>IEEE Microwave and Wireless Components Letters</i> , 2009 , 19, 771-773	2.6	1
58	Electrical modeling of Through Silicon and Package Vias 2009 ,		72
57	Antenna miniaturization using magneto-dielectric substrates 2009 ,		20
56	Fast EM/Circuit Transient Simulation Using Laguerre Equivalent Circuit (SLeEC). <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2009 , 51, 756-762	2	5
55	Conformal WLAN/WiMAX antenna on rigid-flex liquid crystalline polymer based substrate 2009 ,		1
54	Achieving near zero SSN power delivery networks by eliminating power planes and using constant current power transmission lines 2009 ,		13
53	Analysis of frequency-dependent lossy transmission lines driven by CMOS gates 2009 ,		1
52	Electrical modeling of annular and co-axial TSVs considering MOS capacitance effects 2009 ,		18

51	Low-frequency test method for integrated RF substrates 2009 ,		3
50	Filter integration in ultra thin organic substrate via 3D stitched capacitor 2009 ,		6
49	A low-cost test method for embedded RF passive circuits using two-tone input signals 2009 ,		3
48	Near zero SSN power delivery networks using Constant Voltage Power Transmission Lines 2009 ,		2
47	Effect of system components on electrical and thermal characteristics for power delivery networks in 3D system integration 2009 ,		5
46	. <i>IEEE Transactions on Advanced Packaging</i> , 2009 , 32, 13-25		10
45	Conformal Antennas on Liquid Crystalline Polymer Based Rigid-Flex Substrates Integrated With the Front-End Module. <i>IEEE Transactions on Advanced Packaging</i> , 2009 , 32, 797-808		8
44	Inductance and Resistance Calculations in Three-Dimensional Packaging Using Cylindrical Conduction-Mode Basis Functions. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2009 , 28, 846-859	2.5	19
43	Power transmission lines: A new interconnect design to eliminate simultaneous switching noise 2008 ,		13
42	Extraction of material properties for low-K and low-loss dielectrics using cavity resonator and efficient finite difference solver up to 40GHz 2008 ,		1
41	Chip-package co-simulation with multiscale structures 2008 ,		2
40	Analytical Stability Condition of the Latency Insertion Method for Nonuniform GLC Circuits. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2008 , 55, 937-941	3.5	16
39	A low-cost approach for testing embedded rf passive circuits based on oscillation principle 2008 ,		1
38	Accurate Transient Simulation of Interconnects Characterized by Band-Limited Data With Propagation Delay Enforcement in a Modified Nodal Analysis Framework. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2008 , 50, 715-729	2	14
37	Eye-Pattern Design for High-Speed Differential Links Using Extended Passive Equalization. <i>IEEE Transactions on Advanced Packaging</i> , 2008 , 31, 246-257		6
36	A low-cost test approach for embedded RF passive circuits 2008 ,		3
35	Compact Electromagnetic Bandgap structure for noise suppression in power plane 2008 ,		3
34	2008 IEEE electrical performance of electronic packaging suppression of vertical coupling using Electromagnetic Band Gap structures 2008 ,		2

33	Low-Cost One-Port Approach for Testing Integrated RF Substrates 2008,		4
32	Design, modeling, and characterization of embedded electromagnetic band gap (EBG) structure 2008,		8
31	Multi-layer fringe-field augmentations for the efficient modeling of package power planes 2008,		1
30	On-Chip Power-Grid Simulation Using Latency Insertion Method. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2008 , 55, 914-931	3.9	41
29	A low cost method for testing integrated RF substrates 2008,		7
28	Correlation of PDN impedance with jitter and voltage margin for high speed channels 2008,		7
27	Wideband electrical modeling of large three-dimensional interconnects using accelerated generation of partial impedances with cylindrical conduction mode basis functions 2008,		1
26	Design of Integrated RF Modules with Process Control Monitors on Liquid Crystalline Polymer Substrates for Large Volume Manufacturing 2007,		1
25	A Heterogeneous Array of Off-Chip Interconnects for Optimum Mechanical and Electrical Performance. <i>Journal of Electronic Packaging, Transactions of the ASME</i> , 2007 , 129, 460-468	2	6
24	Air-Gap Transmission Lines on Organic Substrates for Low-Loss Interconnects. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2007 , 55, 1919-1925	4.1	18
23	Multilayered Finite-Difference Method (MFDM) for Modeling of Package and Printed Circuit Board Planes. <i>IEEE Transactions on Electromagnetic Compatibility</i> , 2007 , 49, 441-447	2	47
22	Liquid Crystal Polymer-Based Planar Lumped Component Dual-Band Filters For Dual-Band WLAN Systems 2007,		3
21	Near-Field and Far-Field Analyses of Alternating Impedance Electromagnetic Bandgap (AI-EBG) Structure for Mixed-Signal Applications. <i>IEEE Transactions on Advanced Packaging</i> , 2007 , 30, 180-190		13
20	Conformal Antennas on Liquid Crystalline Polymer Substrates for Consumer Applications 2007,		5
19	Analysis for Signal and Power Integrity Using the Multilayered Finite Difference Method 2007,		2
18	Characterization of Co-Planar Silicon Transmission Lines With and Without Slow-Wave Effect. <i>IEEE Transactions on Advanced Packaging</i> , 2007 , 30, 526-532		6
17	Efficient Simulation of Power/Ground Planes for SiP Applications 2007,		1
16	Frequency-Dependent Dielectric Constant and Loss Tangent Characterization of Thin Dielectrics Using a Rapid Solver 2007,		2

15	Broadband Modeling and Tuning of Multi-layer RF Circuits using Physical Augmentation Methodology 2007 ,		1
14	Cylindrical Conduction Mode Basis Functions for Modeling of Inductive Couplings in System-in-Package (SiP) 2007 ,		2
13	Stopband Analysis Using Dispersion Diagram for Two-Dimensional Electromagnetic Bandgap Structures in Printed Circuit Boards. <i>IEEE Microwave and Wireless Components Letters</i> , 2006 , 16, 645-647 ^{2.6}	21	
12	Analysis and Design of Electromagnetic Bandgap (EBG) Structures for Power Plane Isolation Using 2D Dispersion Diagrams and Scalability 2006 ,		7
11	Causal Transient Simulation of Passive Networks with Fast Convolution 2006 ,		5
10	Eye-Pattern Improvement for Design of High-Speed Differential Links Using Passive Equalization 2006 ,		2
9	Efficient Modeling of Package Power Delivery Networks with Fringing Fields and Gap Coupling in Mixed Signal Systems 2006 ,		10
8	Dielectric Constant and Loss Tangent Characterization of Thin High-K Dielectrics Using Corner-to-Corner Plane Probing 2006 ,		4
7	Extraction of S-parameters from time domain reflectometry and transmission measurements using rational functions. <i>International Journal of RF and Microwave Computer-Aided Engineering</i> , 2003 , 13, 74-85 ^{1.5}		
6	Modeling and transient simulation of planes in electronic packages. <i>IEEE Transactions on Advanced Packaging</i> , 2000 , 23, 340-352		82
5	Extraction of S-Parameters from TDR/TDT Measurements using Rational Functions 2000 ,		2
4	Fault Detection and Automated Fault Diagnosis for Embedded Integrated Electrical Passives. <i>Journal of Signal Processing Systems</i> , 1999 , 21, 265-276		5
3	A Survey of Test Techniques for MCM Substrates. <i>Journal of Electronic Testing: Theory and Applications (JETTA)</i> , 1997 , 10, 27-38	0.7	3
2	A survey of various computer architectures for solution of large matrix equations. <i>International Journal of Numerical Modelling: Electronic Networks, Devices and Fields</i> , 1995 , 8, 153-168	1	1
1	Waveguide mode solution using a hybrid edge element approach. <i>The International Executive</i> , 1995 , 5, 122-130		1