Sheldon Tan

List of Publications by Year
in descending order

262 papers	2,397 citations	361413 20 h-index	434195 31 g-index
269 all docs	269 docs citations	269 times ranked	1068 citing authors

#	Article	IF	Citations
1	Pathological Element-Based Active Device Models and Their Application to Symbolic Analysis. IEEE Transactions on Circuits and Systems I: Regular Papers, 2011, 58, 1382-1395.	5.4	99
2	Physics-based Electromigration Assessment for Power Grid Networks. , 2014, , .		88
3	Physics-Based Electromigration Models and Full-Chip Assessment for Power Grid Networks. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 1848-1861.	2.7	70
4	Analytical Modeling and Characterization of Electromigration Effects for Multibranch Interconnect Trees. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2016, 35, 1811-1824.	2.7	51
5	Symbolic analysis of analog circuits containing voltage mirrors and current mirrors. Analog Integrated Circuits and Signal Processing, 2010, 65, 89-95.	1.4	45
6	Compact Lateral Thermal Resistance Model of TSVs for Fast Finite-Difference Based Thermal Analysis of 3-D Stacked ICs. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2014, 33, 1490-1502.	2.7	44
7	A systematic method for functional unit power estimation in microprocessors. , 2006, , .		43
8	Partitioning-based approach to fast on-chip decap budgeting and minimization. , 2005, , .		41
9	Task Migrations for Distributed Thermal Management Considering Transient Effects. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2015, 23, 397-401.	3.1	41
10	GPU friendly fast Poisson solver for structured power grid network analysis. , 2009, , .		38
11	Efficient power modeling and software thermal sensing for runtime temperature monitoring. ACM Transactions on Design Automation of Electronic Systems, 2007, 12, 1-29.	2.6	36
12	Recent advances in EM and BTI induced reliability modeling, analysis and optimization (invited). The Integration VLSI Journal, 2018, 60, 132-152.	2.1	36
13	Fast Electromigration Stress Evolution Analysis for Interconnect Trees Using Krylov Subspace Method. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 969-980.	3.1	35
14	Battery Management and Application for Energy-Efficient Buildings. , 2014, , .		34
15	Analytical Modeling of Electromigration Failure for VLSI Interconnect Tree Considering Temperature and Segment Length Effects. IEEE Transactions on Device and Materials Reliability, 2017, 17, 653-666.	2.0	32
16	Thermal-Sensor-Based Occupancy Detection for Smart Buildings Using Machine-Learning Methods. ACM Transactions on Design Automation of Electronic Systems, 2018, 23, 1-21.	2.6	29
17	Second-Order Balanced Truncation for Passive-Order Reduction of RLCK Circuits. IEEE Transactions on Circuits and Systems II: Express Briefs, 2008, 55, 942-946.	3.0	28
18	EM-based on-chip aging sensor for detection and prevention of counterfeit and recycled ICs. , 2015, , .		28

#	Article	IF	Citations
19	Fast Electromigration Immortality Analysis for Multisegment Copper Interconnect Wires. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2018, 37, 3137-3150.	2.7	28
20	Hierarchical Dynamic Thermal Management Method for High-Performance Many-Core Microprocessors. ACM Transactions on Design Automation of Electronic Systems, 2017, 22, 1-21.	2.6	26
21	EMSpice: Physics-Based Electromigration Check Using Coupled Electronic and Stress Simulation. IEEE Transactions on Device and Materials Reliability, 2020, 20, 376-389.	2.0	23
22	ETBR. , 2008, , .		22
23	Parameterized architecture-level dynamic thermal models for multicore microprocessors. ACM Transactions on Design Automation of Electronic Systems, 2010, 15, 1-22.	2.6	22
24	Compact thermal modeling for packaged microprocessor design with practical power maps. The Integration VLSI Journal, 2014, 47, 71-85.	2.1	22
25	Electromigration recovery modeling and analysis under time-dependent current and temperature stressing. , 2016, , .		22
26	GLU3.0: Fast GPU-based Parallel Sparse LU Factorization for Circuit Simulation. IEEE Design and Test, 2020, 37, 78-90.	1.2	22
27	Fast Variational Analysis of On-Chip Power Grids by Stochastic Extended Krylov Subspace Method. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2008, 27, 1996-2006.	2.7	21
28	Physics-based electromigration modeling and assessment for multi-segment interconnects in power grid networks. , 2017, , .		21
29	Fast Thermal Simulation for Runtime Temperature Tracking and Management. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2006, 25, 2882-2893.	2.7	20
30	Variational Capacitance Extraction and Modeling Based on Orthogonal Polynomial Method. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2010, 18, 1556-1566.	3.1	20
31	Electromigration assessment for power grid networks considering temperature and thermal stress effects. The Integration VLSI Journal, 2016, 55, 307-315.	2.1	20
32	Statistical Analysis of On-Chip Power Delivery Networks Considering Lognormal Leakage Current Variations With Spatial Correlation. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 2064-2075.	5.4	19
33	Voltage-based electromigration immortality check for general multi-branch interconnects. , 2016, , .		19
34	GPU-based Ising computing for solving max-cut combinatorial optimization problems. The Integration VLSI Journal, 2019, 69, 335-344.	2.1	19
35	Symbolic Analysis of Analog Circuits By Boolean Logic Operations. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2006, 53, 1313-1317.	2.2	18
36	Composable thermal modeling and simulation for architecture-level thermal designs of multicore microprocessors. ACM Transactions on Design Automation of Electronic Systems, 2013, 18, 1-27.	2.6	18

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37	Energy and Lifetime Optimizations for Dark Silicon Manycore Microprocessor Considering Both Hard and Soft Errors. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2017, 25, 2561-2574.	3.1	18
38	Practical Implementation of Stochastic Parameterized Model Order Reduction via Hermite Polynomial Chaos. , 2007, , .		17
39	Statistical Performance Analysis and Modeling Techniques for Nanometer VLSI Designs. , 2012, , .		17
40	An efficient terminal and model order reduction algorithm. The Integration VLSI Journal, 2008, 41, 210-218.	2.1	16
41	IR-drop based electromigration assessment: Parametric failure chip-scale analysis. , 2014, , .		16
42	A Fast Leakage-Aware Full-Chip Transient Thermal Estimation Method. IEEE Transactions on Computers, 2018, 67, 617-630.	3.4	16
43	Leakage-Aware Predictive Thermal Management for Multicore Systems Using Echo State Network. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 1400-1413.	2.7	16
44	Performance bound analysis of analog circuits considering process variations. , 2011, , .		15
45	Dynamic electromigration modeling for transient stress evolution and recovery under time-dependent current and temperature stressing. The Integration VLSI Journal, 2017, 58, 518-527.	2.1	15
46	Postvoiding FEM Analysis for Electromigration Failure Characterization. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 2483-2493.	3.1	15
47	Fast Analytic Electromigration Analysis for General Multisegment Interconnect Wires. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2020, 28, 421-432.	3.1	15
48	Machine Learning Based Online Full-Chip Heatmap Estimation. , 2020, , .		15
49	Passive Interconnect Macromodeling Via Balanced Truncation of Linear Systems in Descriptor Form. , 2007, , .		14
50	GDP: A Greedy Based Dynamic Power Budgeting Method for Multi/Many-Core Systems in Dark Silicon. IEEE Transactions on Computers, 2019, 68, 526-541.	3.4	14
51	A Fast Semi-Analytic Approach for Combined Electromigration and Thermomigration Analysis for General Multisegment Interconnects. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2021, 40, 350-363.	2.7	14
52	A linear algorithm for full-chip statistical leakage power analysis considering weak spatial correlation. , 2010, , .		14
53	GridNet. , 2020, , .		14
54	Pattern-Based Iterative Method for Extreme Large Power/Ground Analysis. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2007, 26, 680-692.	2.7	13

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55	General Parameterized Thermal Modeling for High-Performance Microprocessor Design. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2012, 20, 211-224.	3.1	13
56	A Power-Driven Thermal Sensor Placement Algorithm for Dynamic Thermal Management. , 2013, , .		13
57	Long-Term Reliability of Nanometer VLSI Systems. , 2019, , .		13
58	SBPOR. Proceedings - Design Automation Conference, 2007, , .	0.0	12
59	Full-chip runtime error-tolerant thermal estimation and prediction for practical thermal management. , 2011, , .		12
60	Decentralized and Passive Model Order Reduction of Linear Networks With Massive Ports. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2012, 20, 865-877.	3.1	12
61	Parallel power grid analysis using preconditioned GMRES solver on CPU-GPU platforms. , 2013, , .		12
62	Interconnect reliability modeling and analysis for multi-branch interconnect trees. , 2015, , .		12
63	Parallel Thermal Analysis of 3-D Integrated Circuits With Liquid Cooling on CPU-GPU Platforms. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2015, 23, 575-579.	3.1	12
64	Nonlinear Transient and Distortion Analysis via Frequency Domain Volterra Series. Circuits, Systems, and Signal Processing, 2006, 25, 295-314.	2.0	11
65	TermMerg: An Efficient Terminal-Reduction Method for Interconnect Circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2007, 26, 1382-1392.	2.7	11
66	Architecture-Level Thermal Characterization for Multicore Microprocessors. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2009, 17, 1495-1507.	3.1	11
67	Symbolic formulation method for mixed-mode analog circuits using nullors. , 2009, , .		11
68	General behavioral thermal modeling and characterization for multi-core microprocessor design. , 2010, , .		11
69	Full-chip thermal analysis of 3D ICs with liquid cooling by GPU-accelerated GMRES method. , 2012, , .		11
70	Finite difference method for electromigration analysis of multi-branch interconnects. , 2016, , .		11
71	EM-GAN: Data-Driven Fast Stress Analysis for Multi-Segment Interconnects. , 2020, , .		11
72	Efficient decoupling capacitor planning via convex programming methods. , 2006, , .		10

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73	Compact lateral thermal resistance modeling and characterization for TSV and TSV array. , 2013, , .		10
74	EM-Based On-Chip Aging Sensor for Detection of Recycled ICs. IEEE Design and Test, 2016, 33, 56-64.	1.2	10
75	Parallel GMRES solver for fast analysis of large linear dynamic systems on GPU platforms. The Integration VLSI Journal, 2016, 52, 10-22.	2.1	10
76	Fast physics-based electromigration analysis for multi-branch interconnect trees. , 2017, , .		10
77	Recovery-Aware Proactive TSV Repair for Electromigration Lifetime Enhancement in 3-D ICs. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 531-543.	3.1	10
78	Hot Spot Identification and System Parameterized Thermal Modeling for Multi-Core Processors Through Infrared Thermal Imaging. , 2019, , .		10
79	Post-Silicon Heat-Source Identification and Machine-Learning-Based Thermal Modeling Using Infrared Thermal Imaging. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2021, 40, 694-707.	2.7	10
80	Real-Time Full-Chip Thermal Tracking: A Post-Silicon, Machine Learning Perspective. IEEE Transactions on Computers, 2021, , 1-1.	3.4	10
81	Variational capacitance modeling using orthogonal polynomial method. , 2008, , .		9
82	Fast Analysis of a Large-Scale Inductive Interconnect by Block-Structure-Preserved Macromodeling. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2010, 18, 1399-1411.	3.1	9
83	Learning-Based Dynamic Reliability Management For Dark Silicon Processor Considering EM Effects. , 2016, , .		9
84	Statistical Rare-Event Analysis and Parameter Guidance by Elite Learning Sample Selection. ACM Transactions on Design Automation of Electronic Systems, 2016, 21, 1-21.	2.6	9
85	Fast thermal simulation for architecture level dynamic thermal management. , 0, , .		8
86	Statistical modeling and analysis of chip-level leakage power by spectral stochastic method. The Integration VLSI Journal, 2010, 43, 156-165.	2.1	8
87	Thermal characterization of TSV based 3D stacked ICs. , 2012, , .		8
88	Performance bound analysis of analog circuits in frequency- and time-domain considering process variations. ACM Transactions on Design Automation of Electronic Systems, 2013, 19, 1-22.	2.6	8
89	Electromigration-lifetime constrained power grid optimization considering multi-segment interconnect wires. , 2018, , .		8
90	Accelerating electromigration aging for fast failure detection for nanometer ICs. , 2018, , .		8

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91	SVM Based Intrusion Detection Using Nonlinear Scaling Scheme. , 2018, , .		8
92	Accelerating Electromigration Aging: Fast Failure Detection for Nanometer ICs. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 885-894.	2.7	8
93	Fast Physics-Based Electromigration Analysis for Full-Chip Networks by Efficient Eigenfunction-Based Solution. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2021, 40, 507-520.	2.7	8
94	EMGraph: Fast Learning-Based Electromigration Analysis for Multi-Segment Interconnect Using Graph Convolution Networks. , 2021, , .		8
95	Statistical Analysis of Power Grid Networks Considering Lognormal Leakage Current Variations with Spatial Correlation. Proceedings - IEEE International Conference on Computer Design: VLSI in Computers and Processors, 2006, , .	0.0	7
96	Optimal Wire Sizing for Early Stage Power/Ground Grid Planning. , 2006, , .		7
97	Compact Modeling of Interconnect Circuits over Wide Frequency Band by Adaptive Complex-Valued Sampling Method. ACM Transactions on Design Automation of Electronic Systems, 2012, 17, 1-22.	2.6	7
98	Fast Statistical Full-Chip Leakage Analysis for Nanometer VLSI Systems. ACM Transactions on Design Automation of Electronic Systems, 2012, 17, 1-19.	2.6	7
99	Distributed task migration for thermal hot spot reduction in many-core microprocessors. , 2013, , .		7
100	Lifetime optimization for real-time embedded systems considering electromigration effects. , 2014, , .		7
101	A GPU-Accelerated Parallel Shooting Algorithm for Analysis of Radio Frequency and Microwave Integrated Circuits. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2015, 23, 480-492.	3.1	7
102	Leveraging recovery effect to reduce electromigration degradation in power/ground TSV. , 2017, , .		7
103	EM-Aware and Lifetime-Constrained Optimization for Multisegment Power Grid Networks. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2019, 27, 940-953.	3.1	7
104	Simulation of Power Grid Networks Considering Wires and Lognormal Leakage Current Variations. , 2006, , .		6
105	An Extended SVD-based Terminal and Model Order Reduction Algorithm. , 2006, , .		6
106	Statistical Model Order Reduction for Interconnect Circuits Considering Spatial Correlations. , 2007, , .		6
107	Statistical full-chip dynamic power estimation considering spatial correlations. , 2011, , .		6
108	Dynamic thermal management for multi-core microprocessors considering transient thermal effects. , 2013, , .		6

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109	From robust chip to smart building: CAD algorithms and methodologies for uncertainty analysis of building performance. , 2015, , .		6
110	New electromigration modeling and analysis considering time-varying temperature and current densities. , 2015, , .		6
111	New power budgeting and thermal management scheme for multi-core systems in dark silicon. , 2016, , .		6
112	Physics-based full-chip TDDB assessment for BEOL interconnects. , 2016, , .		6
113	Physics-Based Compact TDDB Models for Low- k BEOL Copper Interconnects With Time-Varying Voltage Stressing. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 239-248.	3.1	6
114	Prediction of chaotic time series by using ANNs, ANFIS and SVMs. , 2018, , .		6
115	Special Session: Machine Learning for Semiconductor Test and Reliability. , 2021, , .		6
116	Voltage drop reduction for on-chip power delivery considering leakage current variations. , 2007, , .		5
117	Vector Edge Detection in H.264 Implementation. , 2008, , .		5
118	Statistic Analysis of Power/Ground Networks Using Single-Node SOR Method. , 2008, , .		5
119	A robust periodic arnoldi shooting algorithm for efficient analysis of large-scale RF/MM ICs. , 2010, , .		5
120	An efficient statistical chip-level total power estimation method considering process variations with spatial correlation. , 2011, , .		5
121	Fast timing analysis of clock networks considering environmental uncertainty. The Integration VLSI Journal, 2012, 45, 376-387.	2.1	5
122	Symbolic Moment Computation for Statistical Analysis of Large Interconnect Networks. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2013, 21, 944-957.	3.1	5
123	Dynamic reliability management for near-threshold dark silicon processors. , 2016, , .		5
124	Invited - Cross-layer modeling and optimization for electromigration induced reliability. , 2016, , .		5
125	Learning-based occupancy behavior detection for smart buildings. , 2016, , .		5
126	Multi-physics-based FEM analysis for post-voiding analysis of electromigration failure effects. , 2018, , .		5

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127	Full-Chip Power Density and Thermal Map Characterization for Commercial Microprocessors Under Heat Sink Cooling. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 1453-1466.	2.7	5
128	Data-Driven Electrostatics Analysis based on Physics-Constrained Deep learning. , 2021, , .		5
129	Approximate Divider Design Based on Counting-Based Stochastic Computing Division. , 2021, , .		5
130	Fast Thermal Analysis for Chiplet Design based on Graph Convolution Networks. , 2022, , .		5
131	High accurate pattern based precondition method for extremely large power/ground grid analysis. , 2006, , .		4
132	Passive Modeling of Interconnects by Waveform Shaping. , 2007, , .		4
133	Fast Decoupling Capacitor Budgeting for Power/Ground Network Using Random Walk Approach. , 2007, , .		4
134	Improving the reliability of on-chip data caches under process variations. , 2007, , .		4
135	Hierarchical Krylov subspace based reduction of large interconnects. The Integration VLSI Journal, 2009, 42, 193-202.	2.1	4
136	Recent advance in non-Krylov subspace model order reduction of interconnect circuits. Tsinghua Science and Technology, 2010, 15, 151-168.	6.1	4
137	Symbolic noise analysis of low voltage amplifiers by using nullors. , 2010, , .		4
138	Composable thermal modeling and characterization for fast temperature estimation. , 2010, , .		4
139	General switch box modeling and optimization for FPGA routing architectures. , 2010, , .		4
140	A new voltage binning technique for yield improvement based on graph theory. , 2012, , .		4
141	Symbolic nodal analysis of analog integrated circuits using pathological elements. , 2012, , .		4
142	Transient analysis of large linear dynamic networks on hybrid GPU-multicore platforms. , 2012, , .		4
143	Compact nonlinear thermal modeling of packaged integrated systems. , 2013, , .		4
144	Learning based compact thermal modeling for energy-efficient smart building management. , 2015, , .		4

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145	*H* -Matrix-Based Finite-Element-Based Thermal Analysis for 3D ICs. ACM Transactions on Design Automation of Electronic Systems, 2015, 20, 1-25.	2.6	4
146	Overview of cyber-physical temperature estimation in smart buildings: From modeling to measurements. , 2016, , .		4
147	Energy-efficient wireless temperature sensing for smart building applications. , 2016, , .		4
148	Electronic System for Chaotic Time Series Prediction Associated to Human Disease. , 2018, , .		4
149	Saturation-Volume Estimation for Multisegment Copper Interconnect Wires. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2019, 27, 1666-1674.	3.1	4
150	Reliability based hardware Trojan design using physics-based electromigration models. The Integration VLSI Journal, 2019, 66, 9-15.	2.1	4
151	Interconnect Electromigration Modeling and Analysis for Nanometer ICs: From Physics to Full-Chip. IPSJ Transactions on System LSI Design Methodology, 2020, 13, 42-55.	0.8	4
152	COSAIM: Counter-based Stochastic-behaving Approximate Integer Multiplier for Deep Neural Networks. , 2021, , .		4
153	General Block Structure-Preserving Reduced Order Modeling of Linear Dynamic Circuits. , 2007, , .		3
154	Large scale P/G grid transient simulation using hierarchical relaxed approach. The Integration VLSI Journal, 2008, 41, 153-160.	2.1	3
155	Efficient statistical analysis method of power/ground (P/G) network. Progress in Natural Science: Materials International, 2008, 18, 189-196.	4.4	3
156	ETBR: Extended Truncated Balanced Realization Method for On-Chip Power Grid Network Analysis. , 2008, , .		3
157	Multiple block structure-preserving reduced order modeling of interconnect circuits. The Integration VLSI Journal, 2009, 42, 158-168.	2.1	3
158	Statistical analysis of large on-chip power grid networks by variational reduction scheme. The Integration VLSI Journal, 2010, 43, 167-175.	2.1	3
159	Efficient model reduction of interconnects via double gramians approximation. , 2010, , .		3
160	Time-domain performance bound analysis of analog circuits considering process variations. , 2012, , .		3
161	Statistical extraction and modeling of inductance considering spatial correlation. Analog Integrated Circuits and Signal Processing, 2012, 73, 3-11.	1.4	3
162	A new segmentation-based GPU-accelerated sparse matrix-vector multiplication. , 2014, , .		3

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163	Hybrid dynamic thermal management method with model predictive control. , 2014, , .		3
164	Statistical rare event analysis using smart sampling and parameter guidance. , 2015, , .		3
165	Recovery-aware proactive TSV repair for electromigration in 3D ICs. , 2017, , .		3
166	Dynamic reliability management based on resource-based EM modeling for multi-core microprocessors. Microelectronics Journal, 2018, 74, 106-115.	2.0	3
167	Detection of counterfeited ICs via on-chip sensor and post-fabrication authentication policy. The Integration VLSI Journal, 2018, 63, 31-40.	2.1	3
168	Reliable Power Grid Network Design Framework Considering EM Immortalities for Multi-Segment Wires. , 2020, , .		3
169	Runtime Long-Term Reliability Management Using Stochastic Computing in Deep Neural Networks. , 2021, , .		3
170	Stochastic extended Krylov subspace method for variational analysis of on-chip power grid networks. IEEE/ACM International Conference on Computer-Aided Design, Digest of Technical Papers, 2007, , .	0.0	2
171	Partitioning-based decoupling capacitor budgeting via sequence of linear programming. The Integration VLSI Journal, 2007, 40, 516-524.	2.1	2
172	Localized statistical 3D thermal analysis considering Electro-Thermal coupling. , 2009, , .		2
173	Fast analysis of nontree-clock network considering environmental uncertainty by parameterized and incremental macromodeling. , 2009, , .		2
174	Statistical analysis of on-chip power grid networks by variational extended truncated balanced realization method. , 2009, , .		2
175	Wideband reduced modeling of interconnect circuits by adaptive complex-valued sampling method. , 2010, , .		2
176	Passive Rational Interpolation-Based Reduction via CarathÃ©odory Extension for General Systems. IEEE Transactions on Circuits and Systems II: Express Briefs, 2010, 57, 750-755.	3.0	2
177	Statistical extraction and modeling of 3-D inductance with spatial correlation. , 2010, , .		2
178	A fast analog mismatch analysis by an incremental and stochastic trajectory piecewise linear macromodel. , 2010, , .		2
179	A structured parallel periodic Arnoldi shooting algorithm for RF-PSS analysis based on GPU platforms. , 2011, , .		2
180	Performance bound and yield analysis for analog circuits under process variations. , 2013, , .		2

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181	Direct finite-element-based solver for 3D-IC thermal analysis via H-matrix representation. , 2014, , .		2
182	Occupancy Detection in Smart Buildings Using Support Vector Regression Method. , 2016, , .		2
183	Fast stress analysis for runtime reliability enhancement of 3D IC using artificial neural network. , 2016, , .		2
184	Prediction of chaotic time-series with different MLE values using FPGA-based ANNs. , 2017, , .		2
185	Comprehensive detection of counterfeit ICs via on-chip sensor and post-fabrication authentication policy. , 2017, , .		2
186	Dynamic Reliability Management for Multi-Core Processor Based on Deep Reinforcement Learning. , 2019, , .		2
187	Full-chip wire-oriented back-end-of-line TDDB hotspot detection and lifetime analysis. The Integration VLSI Journal, 2020, 70, 90-98.	2.1	2
188	Accurate Power Density Map Estimation for Commercial Multi-Core Microprocessors. , 2020, , .		2
189	Fast Analysis of On-Chip Power Grid Circuits by Extended Truncated Balanced Realization Method. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2009, E92-A, 3061-3069.	0.3	2
190	HAT-DRL: Hotspot-Aware Task Mapping for Lifetime Improvement of Multicore System using Deep Reinforcement Learning. , 2020, , .		2
191	Balanced multi-level multi-way partitioning of analog integrated circuits for hierarchical symbolic analysis. The Integration VLSI Journal, 2003, 34, 65-86.	2.1	1
192	Variational Compact Modeling and Simulation for Linear Dynamic Systems. , 2006, , .		1
193	Random Walk Guided Decap Embedding for Power/Ground Network Optimization. IEEE Transactions on Circuits and Systems II: Express Briefs, 2008, 55, 36-40.	3.0	1
194	Parameterized transient thermal behavioral modeling for chip multiprocessors. , 2008, , .		1
195	Architecture-level thermal behavioral characterization for multi-core microprocessors. , 2008, , .		1
196	Modeling and simulation for on-chip power grid networks by locally dominant Krylov subspace method. , 2008, , .		1
197	Statistical modeling and analysis of chip-level leakage power by spectral stochastic method. , 2009, , .		1
198	UiMOR - UC Riverside Model Order Reduction Tool for post-layout wideband interconnect modeling. , 2010, , .		1

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199	Parallel statistical analysis of analog circuits by GPU-accelerated graph-based approach. , 2012, , .		1
200	Statistical full-chip total power estimation considering spatially correlated process variations. The Integration VLSI Journal, 2013, 46, 80-88.	2.1	1
201	Time-domain performance bound analysis for analog and interconnect circuits considering process variations. , 2014, , .		1
202	Full-chip electromigration assessment: Effect of cross-layout temperature and thermal stress distributions. , 2015, , .		1
203	Fast two-dimensional finite element analysis for power network DC integrity checks of PCBs. , 2017, , .		1
204	Dynamic temperature-aware reliability modeling for multi-branch interconnect trees. , 2017, , .		1
205	Reliability Based Hardware Trojan Design Using Physics-Based Electromigration Models. , 2018, , .		1
206	Accelerating Electromigration Wear-Out Effects Based on Configurable Sink-Structured Wires. , 2018, , .		1
207	An Adaptive Electromigration Assessment Algorithm for Full-chip Power/Ground Networks. , 2020, , .		1
208	Robust power grid network design considering EM aging effects for multi-segment wires. The Integration VLSI Journal, 2021, 77, 38-47.	2.1	1
209	Electrothermal Simulation and Optimal Design of Thermoelectric Cooler Using Analytical Approach. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 3066-3077.	2.7	1
210	A Fast Architecture-Level Thermal Analysis Method for Runtime Thermal Regulation. Journal of Low Power Electronics, 2008, 4, 139-148.	0.6	1
211	A linear statistical analysis for full-chip leakage power with spatial correlation. , 2010, , .		1
212	EM Lifetime Constrained Optimization for Multi-Segment Power Grid Networks. Embedded Systems, 2021, , 365-383.	0.6	1
213	Data-Driven Fast Electrostatics and TDDB Aging Analysis. , 2020, , .		1
214	Run-Time Accuracy Reconfigurable Stochastic Computing for Dynamic Reliability and Power Management: Work-in-Progress. , 2020, , .		1
215	HEALM: Hardware-Efficient Approximate Logarithmic Multiplier with Reduced Error. , 2022, , .		1
216	Modeling and analysis of biological cells in DRAM implementation. , 2007, , .		0

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217	Simultaneous Switching Noise Consideration for Power/Ground Network Optimization. , 2007, , .		0
218	Stochastic based extended krylov subspace method for power/ground network analysis. , 2007, , .		0
219	Architecture-level thermal behavioral models for quad-core microprocessors. , 2007, , .		0
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