

Sheldon Tan

List of Publications by Citations

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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.

220
papers

1,583
citations

18
h-index

28
g-index

269
ext. papers

2,025
ext. citations

1.9
avg, IF

4.97
L-index

#	Paper	IF	Citations
220	. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2011 , 58, 1382-1395	3.9	84
219	Physics-based Electromigration Assessment for Power Grid Networks 2014 ,		71
218	Advanced Model Order Reduction Techniques in VLSI Design 2007 ,		57
217	Physics-Based Electromigration Models and Full-Chip Assessment for Power Grid Networks. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2016 , 35, 1848-1861	2.5	49
216	Symbolic analysis of analog circuits containing voltage mirrors and current mirrors. <i>Analog Integrated Circuits and Signal Processing</i> , 2010 , 65, 89-95	1.2	39
215	A systematic method for functional unit power estimation in microprocessors 2006 ,		33
214	Compact Lateral Thermal Resistance Model of TSVs for Fast Finite-Difference Based Thermal Analysis of 3-D Stacked ICs. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2014 , 33, 1490-1502	2.5	31
213	. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2016 , 35, 1811-1824	2.5	30
212	Task Migrations for Distributed Thermal Management Considering Transient Effects. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2015 , 23, 397-401	2.6	29
211	Battery Management and Application for Energy-Efficient Buildings 2014 ,		26
210	Recent advances in EM and BTI induced reliability modeling, analysis and optimization (invited). <i>The Integration VLSI Journal</i> , 2018 , 60, 132-152	1.4	25
209	Partitioning-based approach to fast on-chip decap budgeting and minimization 2005 ,		25
208	GPU friendly fast Poisson solver for structured power grid network analysis 2009 ,		24
207	Efficient power modeling and software thermal sensing for runtime temperature monitoring. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2007 , 12, 1-29	1.5	24
206	Second-Order Balanced Truncation for Passive-Order Reduction of RLCK Circuits. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2008 , 55, 942-946	3.5	22
205	EM-based on-chip aging sensor for detection and prevention of counterfeit and recycled ICs 2015 ,		19
204	Fast Variational Analysis of On-Chip Power Grids by Stochastic Extended Krylov Subspace Method. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2008 , 27, 1996-2006	2.5	19

203	Hierarchical Dynamic Thermal Management Method for High-Performance Many-Core Microprocessors. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2016 , 22, 1-21	1.5	19
202	Fast Electromigration Immortality Analysis for Multisegment Copper Interconnect Wires. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2018 , 37, 3137-3150	2.5	18
201	. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2018 , 26, 969-980	2.6	17
200	Electromigration recovery modeling and analysis under time-dependent current and temperature stressing 2016 ,		17
199	Variational Capacitance Extraction and Modeling Based on Orthogonal Polynomial Method. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2010 , 18, 1556-1566	2.6	17
198	Statistical Analysis of On-Chip Power Delivery Networks Considering Lognormal Leakage Current Variations With Spatial Correlation. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2008 , 55, 2064-2075	3.9	17
197	Symbolic Analysis of Analog Circuits By Boolean Logic Operations. <i>IEEE Transactions on Circuits and Systems Part 2: Express Briefs</i> , 2006 , 53, 1313-1317		17
196	Energy and Lifetime Optimizations for Dark Silicon Manycore Microprocessor Considering Both Hard and Soft Errors. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2017 , 25, 2561-2574 ^{2,6}	2.6	16
195	Physics-based electromigration modeling and assessment for multi-segment interconnects in power grid networks 2017 ,		16
194	Thermal-Sensor-Based Occupancy Detection for Smart Buildings Using Machine-Learning Methods. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2018 , 23, 1-21	1.5	16
193	Parameterized architecture-level dynamic thermal models for multicore microprocessors. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2010 , 15, 1-22	1.5	16
192	Fast Thermal Simulation for Runtime Temperature Tracking and Management. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2006 , 25, 2882-2893	2.5	16
191	Statistical Performance Analysis and Modeling Techniques for Nanometer VLSI Designs 2012 ,		16
190	Electromigration assessment for power grid networks considering temperature and thermal stress effects. <i>The Integration VLSI Journal</i> , 2016 , 55, 307-315	1.4	15
189	Compact thermal modeling for packaged microprocessor design with practical power maps. <i>The Integration VLSI Journal</i> , 2014 , 47, 71-85	1.4	15
188	IR-drop based electromigration assessment: Parametric failure chip-scale analysis 2014 ,		15
187	Composable thermal modeling and simulation for architecture-level thermal designs of multicore microprocessors. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2013 , 18, 1-27	1.5	15
186	Practical Implementation of Stochastic Parameterized Model Order Reduction via Hermite Polynomial Chaos 2007 ,		15

185	ETBR 2008 ,		14
184	. <i>IEEE Transactions on Device and Materials Reliability</i> , 2017 , 17, 653-666	1.6	13
183	An efficient terminal and model order reduction algorithm. <i>The Integration VLSI Journal</i> , 2008 , 41, 210-218		13
182	Voltage-based electromigration immortality check for general multi-branch interconnects 2016 ,		13
181	A Fast Leakage-Aware Full-Chip Transient Thermal Estimation Method. <i>IEEE Transactions on Computers</i> , 2018 , 67, 617-630	2.5	12
180	Pattern-Based Iterative Method for Extreme Large Power/Ground Analysis. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2007 , 26, 680-692	2.5	12
179	A linear algorithm for full-chip statistical leakage power analysis considering weak spatial correlation 2010 ,		12
178	Dynamic electromigration modeling for transient stress evolution and recovery under time-dependent current and temperature stressing. <i>The Integration VLSI Journal</i> , 2017 , 58, 518-527	1.4	11
177	Performance bound analysis of analog circuits considering process variations 2011 ,		11
176	Interconnect reliability modeling and analysis for multi-branch interconnect trees 2015 ,		10
175	Parallel Thermal Analysis of 3-D Integrated Circuits With Liquid Cooling on CPU-GPU Platforms. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2015 , 23, 575-579	2.6	10
174	General Parameterized Thermal Modeling for High-Performance Microprocessor Design. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2012 , 20, 211-224	2.6	10
173	Full-chip runtime error-tolerant thermal estimation and prediction for practical thermal management 2011 ,		10
172	Nonlinear Transient and Distortion Analysis via Frequency Domain Volterra Series. <i>Circuits, Systems, and Signal Processing</i> , 2006 , 25, 295-314	2.2	10
171	Finite difference method for electromigration analysis of multi-branch interconnects 2016 ,		9
170	GPU-based Ising computing for solving max-cut combinatorial optimization problems. <i>The Integration VLSI Journal</i> , 2019 , 69, 335-344	1.4	9
169	Parallel power grid analysis using preconditioned GMRES solver on CPU-GPU platforms 2013 ,		9
168	General behavioral thermal modeling and characterization for multi-core microprocessor design 2010 ,		9

167	Architecture-Level Thermal Characterization for Multicore Microprocessors. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2009 , 17, 1495-1507	2.6	9
166	Symbolic formulation method for mixed-mode analog circuits using nullors 2009 ,		9
165	Long-Term Reliability of Nanometer VLSI Systems 2019 ,		8
164	A power-driven thermal sensor placement algorithm for dynamic thermal management 2013 ,		8
163	Fast Analysis of a Large-Scale Inductive Interconnect by Block-Structure-Preserved Macromodeling. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2010 , 18, 1399-1411	2.6	8
162	Variational capacitance modeling using orthogonal polynomial method 2008 ,		8
161	Passive Interconnect Macromodeling Via Balanced Truncation of Linear Systems in Descriptor Form 2007 ,		8
160	TermMerg: An Efficient Terminal-Reduction Method for Interconnect Circuits. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2007 , 26, 1382-1392	2.5	8
159	SVM Based Intrusion Detection Using Nonlinear Scaling Scheme 2018 ,		8
158	Full-chip thermal analysis of 3D ICs with liquid cooling by GPU-accelerated GMRES method 2012 ,		7
157	Thermal characterization of TSV based 3D stacked ICs 2012 ,		7
156	Statistical modeling and analysis of chip-level leakage power by spectral stochastic method. <i>The Integration VLSI Journal</i> , 2010 , 43, 156-165	1.4	7
155	2006 ,		7
154	Fast thermal simulation for architecture level dynamic thermal management		7
153	. <i>IEEE Transactions on Computers</i> , 2019 , 68, 526-541	2.5	7
152	Leakage-Aware Predictive Thermal Management for Multicore Systems Using Echo State Network. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2020 , 39, 1400-1413	2.5	7
151	Postvoiding FEM Analysis for Electromigration Failure Characterization. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2018 , 26, 2483-2493	2.6	7
150	Parallel GMRES solver for fast analysis of large linear dynamic systems on GPU platforms. <i>The Integration VLSI Journal</i> , 2016 , 52, 10-22	1.4	6

149	A GPU-Accelerated Parallel Shooting Algorithm for Analysis of Radio Frequency and Microwave Integrated Circuits. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2015 , 23, 480-492	2.6	6
148	Fast physics-based electromigration analysis for multi-branch interconnect trees 2017 ,		6
147	Electromigration-lifetime constrained power grid optimization considering multi-segment interconnect wires 2018 ,		6
146	Accelerating electromigration aging for fast failure detection for nanometer ICs 2018 ,		6
145	EM-Based On-Chip Aging Sensor for Detection of Recycled ICs. <i>IEEE Design and Test</i> , 2016 , 33, 56-64	1.4	6
144	Decentralized and Passive Model Order Reduction of Linear Networks With Massive Ports. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2012 , 20, 865-877	2.6	6
143	Performance bound analysis of analog circuits in frequency- and time-domain considering process variations. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2013 , 19, 1-22	1.5	6
142	Compact lateral thermal resistance modeling and characterization for TSV and TSV array 2013 ,		6
141	Efficient decoupling capacitor planning via convex programming methods 2006 ,		6
140	An Extended SVD-based Terminal and Model Order Reduction Algorithm 2006 ,		6
139	. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2019 , 27, 940-953	2.6	5
138	GLU3.0: Fast GPU-based Parallel Sparse LU Factorization for Circuit Simulation. <i>IEEE Design and Test</i> , 2020 , 37, 78-90	1.4	5
137	From robust chip to smart building: CAD algorithms and methodologies for uncertainty analysis of building performance 2015 ,		5
136	Lifetime optimization for real-time embedded systems considering electromigration effects 2014 ,		5
135	Fast timing analysis of clock networks considering environmental uncertainty. <i>The Integration VLSI Journal</i> , 2012 , 45, 376-387	1.4	5
134	Symbolic Moment Computation for Statistical Analysis of Large Interconnect Networks. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2013 , 21, 944-957	2.6	5
133	Compact Modeling of Interconnect Circuits over Wide Frequency Band by Adaptive Complex-Valued Sampling Method. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2012 , 17, 1-22	1.5	5
132	Fast Statistical Full-Chip Leakage Analysis for Nanometer VLSI Systems. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2012 , 17, 1-19	1.5	5

131	Statistical Model Order Reduction for Interconnect Circuits Considering Spatial Correlations 2007 ,		5
130	SBPOR. <i>Proceedings - Design Automation Conference</i> , 2007 ,		5
129	Simulation of Power Grid Networks Considering Wires and Lognormal Leakage Current Variations 2006 ,		5
128	GridNet 2020 ,		5
127	Learning-based dynamic reliability management for dark silicon processor considering EM effects 2016 ,		5
126	Fast Analytic Electromigration Analysis for General Multisegment Interconnect Wires. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2020 , 28, 421-432	2.6	5
125	New power budgeting and thermal management scheme for multi-core systems in dark silicon 2016 ,		5
124	. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2020 , 39, 885-894	2.5	5
123	EMSpice: Physics-Based Electromigration Check Using Coupled Electronic and Stress Simulation. <i>IEEE Transactions on Device and Materials Reliability</i> , 2020 , 20, 376-389	1.6	5
122	Post-Silicon Heat-Source Identification and Machine-Learning-Based Thermal Modeling Using Infrared Thermal Imaging. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2021 , 40, 694-707	2.5	5
121	Multi-physics-based FEM analysis for post-voiding analysis of electromigration failure effects 2018 ,		5
120	Hot Spot Identification and System Parameterized Thermal Modeling for Multi-Core Processors Through Infrared Thermal Imaging 2019 ,		4
119	H-Matrix-Based Finite-Element-Based Thermal Analysis for 3D ICs. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2015 , 20, 1-25	1.5	4
118	Machine Learning Based Online Full-Chip Heatmap Estimation 2020 ,		4
117	. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2018 , 26, 531-543	2.6	4
116	Learning based compact thermal modeling for energy-efficient smart building management 2015 ,		4
115	Symbolic nodal analysis of analog integrated circuits using pathological elements 2012 ,		4
114	Statistical full-chip dynamic power estimation considering spatial correlations 2011 ,		4

113	A new voltage binning technique for yield improvement based on graph theory 2012 ,		4
112	Improving the reliability of on-chip data caches under process variations 2007 ,		4
111	Statistical Rare-Event Analysis and Parameter Guidance by Elite Learning Sample Selection. <i>ACM Transactions on Design Automation of Electronic Systems</i> , 2016 , 21, 1-21	1.5	4
110	Dynamic reliability management for near-threshold dark silicon processors 2016 ,		4
109	Invited - Cross-layer modeling and optimization for electromigration induced reliability 2016 ,		4
108	New electromigration modeling and analysis considering time-varying temperature and current densities 2015 ,		3
107	Learning-based occupancy behavior detection for smart buildings 2016 ,		3
106	Energy-efficient wireless temperature sensing for smart building applications 2016 ,		3
105	Prediction of chaotic time series by using ANNs, ANFIS and SVMs 2018 ,		3
104	Leveraging recovery effect to reduce electromigration degradation in power/ground TSV 2017 ,		3
103	Transient analysis of large linear dynamic networks on hybrid GPU-multicore platforms 2012 ,		3
102	A robust periodic arnoldi shooting algorithm for efficient analysis of large-scale RF/MM ICs 2010 ,		3
101	Symbolic noise analysis of low voltage amplifiers by using nullors 2010 ,		3
100	Efficient model reduction of interconnects via double gramians approximation 2010 ,		3
99	Hierarchical Krylov subspace based reduction of large interconnects. <i>The Integration VLSI Journal</i> , 2009 , 42, 193-202	1.4	3
98	An efficient statistical chip-level total power estimation method considering process variations with spatial correlation 2011 ,		3
97	ETBR: Extended Truncated Balanced Realization Method for On-Chip Power Grid Network Analysis 2008 ,		3
96	High accurate pattern based precondition method for extremely large power/ground grid analysis 2006 ,		3

95	Passive Modeling of Interconnects by Waveform Shaping 2007 ,		3
94	Statistical Analysis of Power Grid Networks Considering Lognormal Leakage Current Variations with Spatial Correlation. <i>Proceedings - IEEE International Conference on Computer Design: VLSI in Computers and Processors</i> , 2006 ,		3
93	EM-GAN: Data-Driven Fast Stress Analysis for Multi-Segment Interconnects 2020 ,		3
92	Detection of counterfeited ICs via on-chip sensor and post-fabrication authentication policy. <i>The Integration VLSI Journal</i> , 2018 , 63, 31-40	1.4	3
91	Recovery-aware proactive TSV repair for electromigration in 3D ICs 2017 ,		2
90	2020 ,		2
89	Dynamic reliability management based on resource-based EM modeling for multi-core microprocessors. <i>Microelectronics Journal</i> , 2018 , 74, 106-115	1.8	2
88	Physics-Based Compact TDDDB Models for Low- δ BEOL Copper Interconnects With Time-Varying Voltage Stressing. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2018 , 26, 239-248	2.6	2
87	Overview of cyber-physical temperature estimation in smart buildings: From modeling to measurements 2016 ,		2
86	Saturation-Volume Estimation for Multisegment Copper Interconnect Wires. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2019 , 27, 1666-1674	2.6	2
85	Direct finite-element-based solver for 3D-IC thermal analysis via H-matrix representation 2014 ,		2
84	Dynamic thermal management for multi-core microprocessors considering transient thermal effects 2013 ,		2
83	Performance bound and yield analysis for analog circuits under process variations 2013 ,		2
82	Compact nonlinear thermal modeling of packaged integrated systems 2013 ,		2
81	Comprehensive detection of counterfeit ICs via on-chip sensor and post-fabrication authentication policy 2017 ,		2
80	Statistical rare event analysis using smart sampling and parameter guidance 2015 ,		2
79	A new segmentation-based GPU-accelerated sparse matrix-vector multiplication 2014 ,		2
78	Statistical extraction and modeling of inductance considering spatial correlation. <i>Analog Integrated Circuits and Signal Processing</i> , 2012 , 73, 3-11	1.2	2

77	Passive Rational Interpolation-Based Reduction via Carathéodory Extension for General Systems. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2010 , 57, 750-755	3.5	2
76	Composable thermal modeling and characterization for fast temperature estimation 2010 ,		2
75	Statistical extraction and modeling of 3-D inductance with spatial correlation 2010 ,		2
74	A fast analog mismatch analysis by an incremental and stochastic trajectory piecewise linear macromodel 2010 ,		2
73	Multiple block structure-preserving reduced order modeling of interconnect circuits. <i>The Integration VLSI Journal</i> , 2009 , 42, 158-168	1.4	2
72	A structured parallel periodic Arnoldi shooting algorithm for RF-PSS analysis based on GPU platforms 2011 ,		2
71	Fast analysis of nontree-clock network considering environmental uncertainty by parameterized and incremental macromodeling 2009 ,		2
70	Statistical analysis of on-chip power grid networks by variational extended truncated balanced realization method 2009 ,		2
69	Statistical analysis of large on-chip power grid networks by variational reduction scheme. <i>The Integration VLSI Journal</i> , 2010 , 43, 167-175	1.4	2
68	Recent advance in non-Krylov subspace model order reduction of interconnect circuits. <i>Tsinghua Science and Technology</i> , 2010 , 15, 151-168	3.4	2
67	General Block Structure-Preserving Reduced Order Modeling of Linear Dynamic Circuits 2007 ,		2
66	Large scale P/G grid transient simulation using hierarchical relaxed approach. <i>The Integration VLSI Journal</i> , 2008 , 41, 153-160	1.4	2
65	Fast Analysis of On-Chip Power Grid Circuits by Extended Truncated Balanced Realization Method. <i>IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences</i> , 2009 , E92-A, 3061-3069	0.4	2
64	Occupancy Detection in Smart Buildings Using Support Vector Regression Method 2016 ,		2
63	Dynamic Reliability Management for Multi-Core Processor Based on Deep Reinforcement Learning 2019 ,		1
62	An Adaptive Electromigration Assessment Algorithm for Full-chip Power/Ground Networks 2020 ,		1
61	Fast stress analysis for runtime reliability enhancement of 3D IC using artificial neural network 2016 ,		1
60	Time-domain performance bound analysis for analog and interconnect circuits considering process variations 2014 ,		1

59	Statistical full-chip total power estimation considering spatially correlated process variations. <i>The Integration VLSI Journal</i> , 2013 , 46, 80-88	1.4	1
58	Prediction of chaotic time-series with different MLE values using FPGA-based ANNs 2017 ,		1
57	Dynamic temperature-aware reliability modeling for multi-branch interconnect trees 2017 ,		1
56	Full-chip electromigration assessment: Effect of cross-layout temperature and thermal stress distributions 2015 ,		1
55	Hybrid dynamic thermal management method with model predictive control 2014 ,		1
54	Time-domain performance bound analysis of analog circuits considering process variations 2012 ,		1
53	Distributed task migration for thermal hot spot reduction in many-core microprocessors 2013 ,		1
52	Parallel statistical analysis of analog circuits by GPU-accelerated graph-based approach 2012 ,		1
51	Statistical modeling and analysis of chip-level leakage power by spectral stochastic method 2009 ,		1
50	Efficient statistical analysis method of power/ground (P/G) network. <i>Progress in Natural Science: Materials International</i> , 2008 , 18, 189-196	3.6	1
49	Vector Edge Detection in H.264 Implementation 2008 ,		1
48	Parameterized transient thermal behavioral modeling for chip multiprocessors 2008 ,		1
47	Architecture-level thermal behavioral characterization for multi-core microprocessors 2008 ,		1
46	Statistic Analysis of Power/Ground Networks Using Single-Node SOR Method 2008 ,		1
45	Modeling and simulation for on-chip power grid networks by locally dominant Krylov subspace method 2008 ,		1
44	Partitioning-based decoupling capacitor budgeting via sequence of linear programming. <i>The Integration VLSI Journal</i> , 2007 , 40, 516-524	1.4	1
43	Fast Decoupling Capacitor Budgeting for Power/Ground Network Using Random Walk Approach 2007 ,		1
42	Stochastic extended Krylov subspace method for variational analysis of on-chip power grid networks. <i>IEEE/ACM International Conference on Computer-Aided Design, Digest of Technical Papers</i> , 2007 ,		1

41	Balanced multi-level multi-way partitioning of analog integrated circuits for hierarchical symbolic analysis. <i>The Integration VLSI Journal</i> , 2003 , 34, 65-86	1.4	1
40	HAT-DRL: Hotspot-Aware Task Mapping for Lifetime Improvement of Multicore System using Deep Reinforcement Learning 2020 ,		1
39	Runtime Long-Term Reliability Management Using Stochastic Computing in Deep Neural Networks 2021 ,		1
38	Physics-based full-chip TDDB assessment for BEOL interconnects 2016 ,		1
37	Fast Physics-Based Electromigration Analysis for Full-Chip Networks by Efficient Eigenfunction-Based Solution. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2021 , 40, 507-520	2.5	1
36	A Fast Semi-Analytic Approach for Combined Electromigration and Thermomigration Analysis for General Multisegment Interconnects. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2021 , 40, 350-363	2.5	1
35	Accelerating Electromigration Wear-Out Effects Based on Configurable Sink-Structured Wires 2018 ,		1
34	Real-Time Full-Chip Thermal Tracking: A Post-Silicon, Machine Learning Perspective. <i>IEEE Transactions on Computers</i> , 2021 , 1-1	2.5	1
33	Reliability based hardware Trojan design using physics-based electromigration models. <i>The Integration VLSI Journal</i> , 2019 , 66, 9-15	1.4	0
32	Interconnect Electromigration Modeling and Analysis for Nanometer ICs: From Physics to Full-Chip. <i>IPSI Transactions on System LSI Design Methodology</i> , 2020 , 13, 42-55	0.2	0
31	EM Lifetime Constrained Optimization for Multi-Segment Power Grid Networks. <i>Embedded Systems</i> , 2021 , 365-383		0
30	Full-chip wire-oriented back-end-of-line TDDB hotspot detection and lifetime analysis. <i>The Integration VLSI Journal</i> , 2020 , 70, 90-98	1.4	0
29	Robust power grid network design considering EM aging effects for multi-segment wires. <i>The Integration VLSI Journal</i> , 2021 , 77, 38-47	1.4	0
28	Full-Chip Power Density and Thermal Map Characterization for Commercial Microprocessors under Heat Sink Cooling. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2021 , 1-1	2.5	0
27	2-matrix-based finite element linear solver for fast transient thermal analysis of high-performance ICs. <i>International Journal of Circuit Theory and Applications</i> , 2015 , 43, 1953-1970	2	
26	Corrections to GPU-Accelerated Parallel Sparse LU Factorization Method for Fast Circuit Analysis [2015 DOI: 10.1109/TVLSI.2015.2421287]. <i>IEEE Transactions on Very Large Scale Integration (VLSI) Systems</i> , 2016 , 24, 1212-1212	2.6	
25	Localized relaxation theory of circuits and its applications in electro-thermal analyses. <i>Science China Information Sciences</i> , 2012 , 55, 938-950	3-4	
24	Random Walk Guided Decap Embedding for Power/Ground Network Optimization. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2008 , 55, 36-40	3-5	

- 23 Minimum Decoupling Capacitor Insertion in VLSI Power/Ground Supply Networks by Semidefinite and Linear Programs. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, **2007**, 15, 1284-1287^{2,6}
- 22 Electrothermal Simulation and Optimal Design of Thermoelectric Cooler using Analytical Approach. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, **2021**, 1-1 2.5
- 21 Compact EM Models for Multi-Segment Interconnect Wires **2019**, 121-151
- 20 Dynamic EM Models for Transient Stress Evolution and Recovery **2019**, 97-120
- 19 Physics-Based EM Modeling **2019**, 13-45
- 18 Learning-Based DRM and Energy Optimization for Manycore Dark Silicon Processors **2019**, 217-245
- 17 Resource-Based EM Modeling DRM for Multi-Core Microprocessors **2019**, 177-194
- 16 EM Assessment for Power Grid Networks **2019**, 153-175
- 15 Fast EM Stress Evolution Analysis Using Krylov Subspace Method **2019**, 47-66
- 14 Fast EM Immortality Analysis for Multi-Segment Copper Interconnect Wires **2019**, 67-96
- 13 Statistical Capacitance Modeling and Extraction **2012**, 163-182
- 12 Statistical Power Grid Analysis by Variational Subspace Method **2012**, 145-159
- 11 Voltage Binning Technique for Yield Optimization **2012**, 273-286
- 10 Statistical Total Power Estimation Techniques **2012**, 93-103
- 9 Statistical Power Grid Analysis Considering Log-Normal Leakage Current Variations **2012**, 107-126
- 8 Linear Statistical Leakage Analysis by Virtual Grid-Based Modeling **2012**, 65-82
- 7 Statistical Dynamic Power Estimation Techniques **2012**, 83-92
- 6 Statistical Power Grid Analysis by Stochastic Extended Krylov Subspace Method **2012**, 127-144

5 Fundamentals of Statistical Analysis **2012**, 15-36

4 Statistical Yield Analysis and Optimization **2012**, 253-272

3 Statistical Inductance Modeling and Extraction **2012**, 209-218

2 Statistical Leakage Power Analysis by Spectral Stochastic Method **2012**, 55-63

1 The 2021 Asia and South Pacific Design Automation Conference (ASPDAC). *IEEE Design and Test*, **2021**, 38, 121-122

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