

# Hai-Bao Chen

## List of Publications by Year in descending order

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48  
papers

573  
citations

933447

10  
h-index

713466

21  
g-index

48  
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48  
docs citations

48  
times ranked

455  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multilayer Perceptron-Based Stress Evolution Analysis Under DC Current Stressing for Multisegment Wires. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2023, 42, 544-557.	2.7	4
2	A Space-Time Neural Network for Analysis of Stress Evolution Under DC Current Stressing. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2022, 41, 5501-5514.	2.7	6
3	SVM Based Intrusion Detection Method with Nonlinear Scaling and Feature Selection. IEICE Transactions on Information and Systems, 2022, E105.D, 1024-1038.	0.7	2
4	TEANS: A Target Enhancement and Attenuated Nonmaximum Suppression Object Detector for Remote Sensing Images. IEEE Geoscience and Remote Sensing Letters, 2021, 18, 632-636.	3.1	8
5	A 3.85-Gb/s 8 × 8 Soft-Output MIMO Detector With Lattice-Reduction-Aided Channel Preprocessing. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2021, 29, 307-320.	3.1	8
6	A Low-Bit Quantized and HLS-Based Neural Network FPGA Accelerator for Object Detection. , 2021, , .		3
7	S3-Net: A Fast Scene Understanding Network by Single-Shot Segmentation for Autonomous Driving. ACM Transactions on Intelligent Systems and Technology, 2021, 12, 1-19.	4.5	7
8	RGA-SOBAR: Second-Order Block Arnoldi Method Based on Relative Gain Array for Model Order Reduction of MIMO RCS Circuits. , 2021, , .		0
9	Model Order Reduction Based on Dynamic Relative Gain Array for MIMO Systems. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 2507-2511.	3.0	6
10	Exploring the Impact of Random Telegraph Noise-Induced Accuracy Loss on Resistive RAM-Based Deep Neural Network. IEEE Transactions on Electron Devices, 2020, 67, 3335-3340.	3.0	15
11	Stress Evolution Analysis of EM-Induced Void Growth for Multi-Segment Interconnect Wires. , 2020, , .		1
12	ABCD: A Compact Object Detector Based on Channel Quantization and Tensor Decomposition. , 2020, , .		0
13	ANN-Based Outlier Detection for Wireless Sensor Networks in Smart Buildings. IEEE Access, 2019, 7, 95987-95997.	4.2	18
14	A Difference-Based Local Contrast Method for Infrared Small Target Detection Under Complex Background. IEEE Access, 2019, 7, 105503-105513.	4.2	18
15	A large-scale in-memory computing for deep neural network with trained quantization. The Integration VLSI Journal, 2019, 69, 345-355.	2.1	4
16	Scale Adaptive Proposal Network for Object Detection in Remote Sensing Images. IEEE Geoscience and Remote Sensing Letters, 2019, 16, 864-868.	3.1	80
17	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
18	SVM Based Intrusion Detection Using Nonlinear Scaling Scheme. , 2018, , .		8

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	Comprehensive detection of counterfeit ICs via on-chip sensor and post-fabrication authentication policy. , 2017, , .		2
22	Fast two-dimensional finite element analysis for power network DC integrity checks of PCBs. , 2017, , .		1
23	Dynamic temperature-aware reliability modeling for multi-branch interconnect trees. , 2017, , .		1
24	Occupancy Detection in Smart Buildings Using Support Vector Regression Method. , 2016, , .		2
25	Nonlinear model order reduction based on tensor Kronecker product expansion with Arnoldi process. Journal of the Franklin Institute, 2016, 353, 3641-3655.	3.4	7
26	Online Unusual Behavior Detection for Temperature Sensor Networks. , 2016, , .		0
27	Learning-based occupancy behavior detection for smart buildings. , 2016, , .		5
28	Energy-efficient wireless temperature sensing for smart building applications. , 2016, , .		4
29	Thermal modeling for energy-efficient smart building with advanced overfitting mitigation technique. , 2016, , .		0
30	Electromigration recovery modeling and analysis under time-dependent current and temperature stressing. , 2016, , .		22
31	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
32	Learning-Based Dynamic Reliability Management For Dark Silicon Processor Considering EM Effects. , 2016, , .		9
33	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
34	Statistical rare event analysis using smart sampling and parameter guidance. , 2015, , .		3
35	Full-chip electromigration assessment: Effect of cross-layout temperature and thermal stress distributions. , 2015, , .		1
36	Learning based compact thermal modeling for energy-efficient smart building management. , 2015, , .		4

#	ARTICLE	IF	CITATIONS
37	Towards establishing a meaningful and practical dynamics results for the unified RNN model. Neurocomputing, 2015, 157, 315-322.	5.9	3
38	New electromigration modeling and analysis considering time-varying temperature and current densities. , 2015, , .		6
39	<i>H</i> -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
40	Interconnect reliability modeling and analysis for multi-branch interconnect trees. , 2015, , .		12
41	<sup>2</sup> Matrix-based finite element linear solver for fast transient thermal analysis of high-performance ICs. International Journal of Circuit Theory and Applications, 2015, 43, 1953-1970.	2.0	0
42	Lifetime optimization for real-time embedded systems considering electromigration effects. , 2014, , .		7
43	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
44	IR-drop based electromigration assessment: Parametric failure chip-scale analysis. , 2014, , .		16
45	An -embedding model-order reduction approach for differential-algebraic equation systems. Mathematical and Computer Modelling of Dynamical Systems, 2012, 18, 223-241.	2.2	5
46	Time Domain Model Order Reduction of General Orthogonal Polynomials for Linear Input-Output Systems. IEEE Transactions on Automatic Control, 2012, 57, 330-343.	5.7	71
47	Model-order reduction of coupled DAE systems via technique and Krylov subspace method. Journal of the Franklin Institute, 2012, 349, 3027-3045.	3.4	10
48	Application of General Orthogonal Polynomials to Fast Simulation of Nonlinear Descriptor Systems Through Piecewise-Linear Approximation. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2012, 31, 804-808.	2.7	30