Xuan Zhang

List of Publications by Year in Descending Order

51 papers	487 citations	12 h-index	18 g-index
65 ext. papers	718 ext. citations	4 avg, IF	3.94 L-index

#	Paper	IF	Citations
51	Fully integrated parity-time-symmetric electronics.. *Nature Nanotechnology*, **2022**, 17, 262-268	28.7	2
50	Neural-PIM: Efficient Processing-In-Memory with Neural Approximation of Peripherals. *IEEE Transactions on Computers*, **2021**, 1-1	2.5	
49	Evaluating Neural Network-Inspired Analog-to-Digital Conversion With Low-Precision RRAM. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, **2021**, 40, 808-821	2.5	4
48	Near-Memory Processing in Action: Accelerating Personalized Recommendation with AxDIMM. *IEEE Micro*, **2021**, 1-1	1.8	2
47	System-level Early-stage Modeling and Evaluation of IVR-assisted Processor Power Delivery System. *Transactions on Architecture and Code Optimization*, **2021**, 18, 1-27	1.3	
46	Executing Data Integration Effectively and Efficiently Near the Memory. *IEEE Design and Test*, **2021**, 1-1	1.4	1
45	Voltage-Stacked Power Delivery Systems: Reliability, Efficiency, and Power Management. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, **2020**, 39, 5142-5155	2.5	5
44	The Architectural Implications of Facebook's DNN-Based Personalized Recommendation **2020**,		24
43	A Quantitative Exploration of Collaborative Pruning and Approximation Computing Towards Energy Efficient Neural Networks. *IEEE Design and Test*, **2020**, 37, 36-45	1.4	2
42	RecNMP: Accelerating Personalized Recommendation with Near-Memory Processing **2020**,		18
41	PCBChain: Lightweight Reconfigurable Blockchain Primitives for Secure IoT Applications. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, **2020**, 28, 2196-2209	2.6	6
40	Processing Near Sensor Architecture in Mixed-Signal Domain With CMOS Image Sensor of Convolutional-Kernel-Readout Method. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2020**, 67, 389-400	3.9	12
39	NeuADC: Neural Network-Inspired Synthesizable Analog-to-Digital Conversion. *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, **2020**, 39, 1841-1854	2.5	7
38	Attacking vision-based perception in end-to-end autonomous driving models. *Journal of Systems Architecture*, **2020**, 110, 101766	5.5	14
37	Simple Physical Adversarial Examples against End-to-End Autonomous Driving Models **2019**,		15
36	When Capacitors Attack: Formal Method Driven Design and Detection of Charge-Domain Trojans **2019**,		6
35	Neural Network-Inspired Analog-to-Digital Conversion to Achieve Super-Resolution with Low-Precision RRAM Devices **2019**,		4

34	NeuADC: Neural Network-Inspired RRAM-Based Synthesizable Analog-to-Digital Conversion with Reconfigurable Quantization Support **2019**,		3
33	Energy-Dissipation Limits in Variance-Based Computing. *Fluctuation and Noise Letters*, **2018**, 17, 1850013	1.2	
32	Joint Design of Training and Hardware Towards Efficient and Accuracy-Scalable Neural Network Inference. *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, **2018**, 8, 810-821	5.2	11
31	NNest **2018**,		10
30	Efficient and reliable power delivery in voltage-stacked manycore system with hybrid charge-recycling regulators **2018**,		2
29	Exploiting Read/Write Asymmetry to Achieve Opportunistic SRAM Voltage Switching in Dual-Supply Near-Threshold Processors. *Journal of Low Power Electronics and Applications*, **2018**, 8, 28	1.7	0
28	Voltage-Stacked GPUs: A Control Theory Driven Cross-Layer Solution for Practical Voltage Stacking in GPUs **2018**,		13
27	AxTrain **2018**,		17
26	Density Flow in Dynamical Networks via Mean-Field Games. *IEEE Transactions on Automatic Control*, **2017**, 62, 1342-1355	5.9	10
25	A Fully Integrated Battery-Powered System-on-Chip in 40-nm CMOS for Closed-Loop Control of Insect-Scale Pico-Aerial Vehicle. *IEEE Journal of Solid-State Circuits*, **2017**, 52, 2374-2387	5.5	8
24	A 16-Core Voltage-Stacked System With Adaptive Clocking and an Integrated Switched-Capacitor DC-DC Converter. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, **2017**, 25, 1271-1284	2.6	11
23	Variance-based digital logic for energy harvesting Internet-of-Things **2017**,		2
22	Ivory **2017**,		12
21	Decentralized temperature control via HVAC systems in energy efficient buildings: An approximate solution procedure **2016**,		6
20	A Fully Integrated Reconfigurable Switched-Capacitor DC-DC Converter With Four Stacked Output Channels for Voltage Stacking Applications. *IEEE Journal of Solid-State Circuits*, **2016**, 51, 2142-2152	5.5	26
19	A multi-chip system optimized for insect-scale flapping-wing robots **2015**,		12
18	A power electronics unit to drive piezoelectric actuators for flying microrobots **2015**,		9
17	A 16-core voltage-stacked system with an integrated switched-capacitor DC-DC converter **2015**,		17

16	Evaluating Adaptive Clocking for Supply-Noise Resilience in Battery-Powered Aerial Microrobotic System-on-Chip. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2014**, 61, 2309-2317	3.9	6
15	Low-Power, Minimally Invasive Process Compensation Technique for Sub-Micron CMOS Amplifiers. *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, **2014**, 22, 1-12	2.6	5
14	A fully integrated battery-connected switched-capacitor 4:1 voltage regulator with 70% peak efficiency using bottom-plate charge recycling **2013**,		15
13	Supply-noise resilient adaptive clocking for battery-powered aerial microrobotic System-on-Chip in 40nm CMOS **2013**,		5
12	Characterizing and evaluating voltage noise in multi-core near-threshold processors **2013**,		9
11	Improving Absolute Accuracy of Integrated Resistors With Device Diversification. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2012**, 59, 346-350	3.5	9
10	A Low-Power, Process-and- Temperature- Compensated Ring Oscillator With Addition-Based Current Source. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2011**, 58, 868-878	3.9	64
9	Process Compensation Loops for High Speed Ring Oscillators in Sub-Micron CMOS. *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*, **2011**, 1, 59-70	5.2	7
8	A 46-$muhbox{W}$ Self-Calibrated Gigahertz VCO for Low-Power Radios. *IEEE Transactions on Circuits and Systems II: Express Briefs*, **2011**, 58, 847-851	3.5	13
7	Process variation compensation of a 4.6 GHz LNA in 65nm CMOS **2010**,		4
6	A successive approximation based process-invariant ring oscillator **2010**,		3
5	A low variation GHz ring oscillator with addition-based current source **2009**,		1
4	A process compensated 3-GHz ring oscillator **2009**,		5
3	A low variation GHz ring oscillator with addition-based current source **2009**,		7
2	Low variation current source for 90nm CMOS **2008**,		3
1	Process-Invariant Current Source Design: Methodology and Examples. *IEEE Journal of Solid-State Circuits*, **2007**, 42, 2293-2302	5.5	33