

# T Patrick Xiao

## List of Publications by Year in descending order

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25  
papers

731  
citations

840119

11  
h-index

940134

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g-index

25  
all docs

25  
docs citations

25  
times ranked

1119  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fundamental Efficiency Limit of Lead Iodide Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2018, 9, 1703-1711.	2.1	203
2	Ultraefficient thermophotovoltaic power conversion by band-edge spectral filtering. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15356-15361.	3.3	150
3	Analog architectures for neural network acceleration based on non-volatile memory. Applied Physics Reviews, 2020, 7, .	5.5	100
4	Diffraction Spectral-Splitting Optical Element Designed by Adjoint-Based Electromagnetic Optimization and Fabricated by Femtosecond 3D Direct Laser Writing. ACS Photonics, 2016, 3, 886-894.	3.2	63
5	Electroluminescent refrigeration by ultra-efficient GaAs light-emitting diodes. Journal of Applied Physics, 2018, 123, 173104.	1.1	41
6	Domain wall-magnetic tunnel junction spin-orbit torque devices and circuits for in-memory computing. Applied Physics Letters, 2021, 118, .	1.5	31
7	A domain wall-magnetic tunnel junction artificial synapse with notched geometry for accurate and efficient training of deep neural networks. Applied Physics Letters, 2021, 118, .	1.5	30
8	In situ Parallel Training of Analog Neural Network Using Electrochemical Random-Access Memory. Frontiers in Neuroscience, 2021, 15, 636127.	1.4	24
9	Energy and Performance Benchmarking of a Domain Wall-Magnetic Tunnel Junction Multibit Adder. IEEE Journal on Exploratory Solid-State Computational Devices and Circuits, 2019, 5, 188-196.	1.1	18
10	Irradiation Effects on Perpendicular Anisotropy Spin-orbit Torque Magnetic Tunnel Junctions. IEEE Transactions on Nuclear Science, 2021, 68, 665-670.	1.2	13
11	An Accurate, Error-Tolerant, and Energy-Efficient Neural Network Inference Engine Based on SONOS Analog Memory. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 1480-1493.	3.5	11
12	Device-aware inference operations in SONOS nonvolatile memory arrays. , 2020, , .		9
13	An Analog Preconditioner for Solving Linear Systems. , 2021, , .		9
14	Heavy-Ion-Induced Displacement Damage Effects in Magnetic Tunnel Junctions With Perpendicular Anisotropy. IEEE Transactions on Nuclear Science, 2021, 68, 581-587.	1.2	9
15	Investigating Heavy-Ion Effects on 14-nm Process FinFETs: Displacement Damage Versus Total Ionizing Dose. IEEE Transactions on Nuclear Science, 2021, 68, 724-732.	1.2	8
16	Analysis and mitigation of parasitic resistance effects for analog in-memory neural network acceleration. Semiconductor Science and Technology, 2021, 36, 114004.	1.0	4
17	Impact of interface defects on tunneling FET turn-on steepness. , 2015, , .		3
18	Single-Event Effects Induced by Heavy Ions in SONOS Charge Trapping Memory Arrays. IEEE Transactions on Nuclear Science, 2022, 69, 406-413.	1.2	3

#	ARTICLE	IF	CITATIONS
19	Ionizing Radiation Effects in SONOS-Based Neuromorphic Inference Accelerators. IEEE Transactions on Nuclear Science, 2021, 68, 762-769.	1.2	2
20	Response to "Comment on "High-performance near-field electroluminescent refrigeration device consisting of a GaAs light emitting diode and a Si photovoltaic cell" [J. Appl. Phys. 122, 143104 (2017)]. Journal of Applied Physics, 2018, 123, 116102.	1.1	0
21	Process Variation Model and Analysis for Domain Wall-Magnetic Tunnel Junction Logic. , 2020, , .		0
22	Reaching 28% Efficiency in Thermo-Photovoltaics. , 0, , .		0
23	Fundamental Efficiency Limit of Lead Iodide Perovskite Solar Cells. , 0, , .		0
24	Fundamental Efficiency Limit of Lead Iodide Perovskite Solar Cells. , 0, , .		0
25	Reaching 28% Efficiency in Thermo-Photovoltaics. , 0, , .		0