

Christopher L Ayala

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	MANA: A Monolithic Adiabatic iNtegration Architecture Microprocessor Using 1.4-zJ/op Unshunted Superconductor Josephson Junction Devices. IEEE Journal of Solid-State Circuits, 2021, 56, 1152-1165.	5.4	49
2	An adiabatic superconductor 8-bit adder with 24<i>k</i><i>B</i><i>T</i></i> energy dissipation per junction. Applied Physics Letters, 2019, 114, .	3.3	47
3	Majority-Logic-Optimized Parallel Prefix Carry Look-Ahead Adder Families Using Adiabatic Quantum-Flux-Parametron Logic. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-7.	1.7	28
4	HDL-Based Modeling Approach for Digital Simulation of Adiabatic Quantum Flux Parametron Logic. IEEE Transactions on Applied Superconductivity, 2016, 26, 1-5.	1.7	25
5	Design and Implementation of a 16-Word by 1-Bit Register File Using Adiabatic Quantum Flux Parametron Logic. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-4.	1.7	25
6	Synthesis Flow for Cell-Based Adiabatic Quantum-Flux-Parametron Structural Circuit Generation With HDL Back-End Verification. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-5.	1.7	25
7	Development and Demonstration of Routing and Placement EDA Tools for Large-Scale Adiabatic Quantum-Flux-Parametron Circuits. IEEE Transactions on Applied Superconductivity, 2017, 27, 1-9.	1.7	23
8	A semi-custom design methodology and environment for implementing superconductor adiabatic quantum-flux-parametron microprocessors. Superconductor Science and Technology, 2020, 33, 054006.	3.5	22
9	Amorphous carbon active contact layer for reliable nanoelectromechanical switches. , 2014, , .		21
10	Data-Flow Microarchitecture for Wide Datapath RSFQ Processors: Design Study. IEEE Transactions on Applied Superconductivity, 2011, 21, 787-791.	1.7	17
11	Adiabatic Quantum-Flux-Parametron: A Tutorial Review. IEICE Transactions on Electronics, 2022, E105.C, 251-263.	0.6	17
12	A compact AQFP logic cell design using an 8-metal layer superconductor process. Superconductor Science and Technology, 2020, 33, 035010.	3.5	16
13	Analytical Compact Model in Verilog-A for Electrostatically Actuated Ohmic Switches. IEEE Transactions on Electron Devices, 2014, 61, 2186-2194.	3.0	15
14	Fabrication of Adiabatic Quantum-Flux-Parametron Integrated Circuits Using an Automatic Placement Tool Based on Genetic Algorithms. IEEE Transactions on Applied Superconductivity, 2019, 29, 1-6.	1.7	14
15	Nanoelectromechanical digital logic circuits using curved cantilever switches with amorphous-carbon-coated contacts. Solid-State Electronics, 2015, 113, 157-166.	1.4	10
16	AQFPTX: Adiabatic Quantum-Flux-Parametron Timing eXtraction Tool. , 2019, , .		10
17	Buffer Reduction Via N-Phase Clocking in Adiabatic Quantum-Flux-Parametron Benchmark Circuits. IEEE Transactions on Applied Superconductivity, 2021, 31, 1-8.	1.7	8
18	A 6.7 MHz nanoelectromechanical ring oscillator using curved cantilever switches coated with amorphous carbon. , 2014, , .		7

#	ARTICLE	IF	CITATIONS
19	Electromechanical design space exploration for electrostatically actuated ohmic switches using extended parallel plate compact model. Solid-State Electronics, 2014, 99, 93-100.	1.4	6
20	A 16-Bit Parallel Prefix Carry Look-Ahead Kogge-Stone Adder Implemented in Adiabatic Quantum-Flux-Parametron Logic. IEICE Transactions on Electronics, 2022, E105.C, 270-276.	0.6	4
21	Ultra-low-energy adiabatic dynamic logic circuits using nanoelectromechanical switches. , 2015, , .		2
22	Experimental demonstration of a nanoelectromechanical switch-based logic library including sequential and combinational gates. , 2016, , .		0
23	Experimental demonstration of a nanoelectromechanical switch-based logic library including sequential and combinational gates. , 2016, , .		0