Martin P Weides

List of Publications by Year
in descending order

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Version: 2024-02-01

93	6,435	108046	73587
papers	citations	37 h-index	79 g-index

98	98	98	5939
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Engineering the microwave to infrared noise photon flux for superconducting quantum systems. EPJ Quantum Technology, 2022, 9, 1.	2.9	12
2	Advances in Magnetics Roadmap on Spin-Wave Computing. IEEE Transactions on Magnetics, 2022, 58, 1-72.	1.2	179
3	Scalable Cryoelectronics for Superconducting Qubit Control and Readout. Advanced Intelligent Systems, 2022, 4, .	3.3	3
4	Electromagnetic Approach to Cavity Spintronics. Physical Review Applied, 2021, 15, .	1.5	14
5	Quantum computing hardware in the cloud: Should a computational chemist care?. International Journal of Quantum Chemistry, 2021, 121, e26688.	1.0	2
6	Hybrid quantum devices: Guest editorial. Applied Physics Letters, 2021, 118, .	1.5	3
7	Ultrastrong photon-to-magnon coupling in multilayered heterostructures involving superconducting coherence via ferromagnetic layers. Science Advances, 2021, 7, .	4.7	36
8	Strong magnonâ€“photon coupling with chip-integrated YIG in the zero-temperature limit. Applied Physics Letters, 2021, 119, .	1.5	20
9	Frequency fluctuations of ferromagnetic resonances at millikelvin temperatures. Applied Physics Letters, 2021, 119, 212403.	1.5	1
10	Introducing coherent time control to cavityÂmagnon-polariton modes. Communications Physics, 2020, 3, .	2.0	23
11	Coherent superconducting qubits from a subtractive junction fabrication process. Applied Physics Letters, 2020, 117, .	1.5	19
12	Amplitude and frequency sensing of microwave fields with a superconducting transmon qudit. Npj Quantum Information, 2020, 6, .	2.8	15
13	Probing the Tavis-Cummings Level Splitting with Intermediate-Scale Superconducting Circuits. Physical Review Applied, 2020, 14, .	1.5	6
14	State preparation of a fluxonium qubit with feedback from a custom FPGA-based platform. AIP Conference Proceedings, 2020, , .	0.3	14
15	Rabi oscillations in a superconducting nanowire circuit. Npj Quantum Materials, 2020, 5, .	1.8	13
16	Control of the coupling strength and linewidth of a cavity magnon-polariton. Physical Review Research, 2020, 2, .	1.3	43
17	Correlating Decoherence in Transmon Qubits: Low Frequency Noise by Single Fluctuators. Physical Review Letters, 2019, 123, 190502.	2.9	104
18	Resonance inversion in a superconducting cavity coupled to artificial atoms and a microwave background. Physical Review A, 2019, 99, .	1.0	5

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19	Dielectric Loss of Boron-Based Dielectrics on Niobium Resonators. Journal of Low Temperature Physics, 2019, 195, 474-486.	0.6	8
20	Interplay of Magnetization Dynamics with a Microwave Waveguide at Cryogenic Temperatures. Physical Review Applied, 2019, 11, .	1.5	13
21	Optimization of Al/AlOx/Al-layer systems for Josephson junctions from a microstructure point of view. Journal of Applied Physics, 2019, 125, .	1.1	21
22	Towards semiconductor-superconductor hybrid qubits based on InAs/Al core/shell nanowires. , 2019, , .		0
23	Steering between level repulsion and attraction: broad tunability of two-port driven cavity magnon-polaritons. New Journal of Physics, 2019, 21, 125001.	1.2	27
24	Structural and nanochemical properties of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Al</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mi>x</mml:mi></mml:msub></mml:mrow></mml:math>layers in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Al</mml:mi><mml:mo>/</mml:mo><mml:mi>Al</mml:mi><mml:mi mathvariant="normal">O</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mo>/</mml:mo><mml:mi>Al</mml:mi></mml:mrow></mml	0.9	7
25	Transmon qubit in a magnetic field: Evolution of coherence and transition frequency. Physical Review Research, 2019, 1, .	1.3	15
26	Magnons at low excitations: Observation of incoherent coupling to a bath of two-level systems. Physical Review Research, 2019, 1, .	1.3	19
27	Publisher's Note: Emulating the one-dimensional Fermi-Hubbard model by a double chain of qubits [Phys. Rev. A 94 , 032338 (2016)]. Physical Review A, 2018, 97, .	1.0	0
28	Nonreciprocity Realized with Quantum Nonlinearity. Physical Review Letters, 2018, 121, 123601.	2.9	71
29	Correlating the nanostructure of Al-oxide with deposition conditions and dielectric contributions of two-level systems in perspective of superconducting quantum circuits. Scientific Reports, 2018, 8, 7956.	1.6	17
30	Complex temperature dependence of coupling and dissipation of cavity magnon polaritons from millikelvin to room temperature. Physical Review B, 2018, 97, .	1.1	38
31	Quantum simulation of the spin-boson model with a microwave circuit. Physical Review A, 2018, 97, .	1.0	48
32	Local sensing with the multilevel ac Stark effect. Physical Review A, 2018, 97, .	1.0	24
33	Observation of a collective mode of an array of transmon qubits. JETP Letters, 2017, 105, 47-50.	0.4	15
34	Aluminium-oxide wires for superconducting high kinetic inductance circuits. Superconductor Science and Technology, 2017, 30, 025002.	1.8	45
35	Analog quantum simulation of the Rabi model in the ultra-strong coupling regime. Nature Communications, 2017, 8, 779.	5.8	114
36	An argon ion beam milling process for native AlOx layers enabling coherent superconducting contacts. Applied Physics Letters, 2017, 111, .	1.5	16

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37	Concentric transmon qubit featuring fast tunability and an anisotropic magnetic dipole moment. Applied Physics Letters, 2016, 108, .	1.5	32
38	Emulating the one-dimensional Fermi-Hubbard model by a double chain of qubits. Physical Review A, 2016, 94, .	1.0	32
39	Tunable<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Ït</mml:mi></mml:math>Josephson junction ratchet. Physical Review E, 2016, 94, 042202.	0.8	11
40	Phase retrapping in a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Ït</mml:mi></mml:math>Josephson junction: Onset of the butterfly effect. Physical Review B, 2016, 93, .	1.1	11
41	The effect of normal and insulating layers on 0-Ï€transitions in Josephson junctions with a ferromagnetic barrier. New Journal of Physics, 2015, 17, 113022.	1.2	18
42	Efficient and robust analysis of complex scattering data under noise in microwave resonators. Review of Scientific Instruments, 2015, 86, 024706.	0.6	147
43	Multiphoton dressing of an anharmonic superconducting many-level quantum circuit. Physical Review B, 2015, 91, .	1.1	42
44	Characterization and in-situ monitoring of sub-stoichiometric adjustable superconducting critical temperature titanium nitride growth. Thin Solid Films, 2013, 548, 485-488.	0.8	24
45	Memory cell based on a Ït Josephson junction. Applied Physics Letters, 2013, 102, .	1.5	66
46	Radiation-suppressed superconducting quantum bit in a planar geometry. Applied Physics Letters, 2013, 102, .	1.5	29
47	Micro-fabricated stylus ion trap. Review of Scientific Instruments, 2013, 84, 085001.	0.6	20
48	Sub-micrometer epitaxial Josephson junctions for quantum circuits. Superconductor Science and Technology, 2012, 25, 025005.	1.8	11
49	Identifying capacitive and inductive loss in lumped element superconducting hybrid titanium nitride/aluminum resonators. Applied Physics Letters, 2012, 101, .	1.5	24
50	Etch induced microwave losses in titanium nitride superconducting resonators. Applied Physics Letters, 2012, 100, .	1.5	75
51	Dynamic quantum Kerr effect in circuit quantum electrodynamics. Physical Review A, 2012, 85, .	1.0	13
52	T1-echo sequence: Protecting the state of a qubit in the presence of coherent interaction. Physical Review A, 2012, 86, .	1.0	1
53	Experimental Evidence of a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ït</mml:mi></mml:math>Josephson Junction. Physical Review Letters, 2012, 109, 107002.	2.9	114
54	Deterministic Entanglement of Photons in Two Superconducting Microwave Resonators. Physical Review Letters, 2011, 106, 060401.	2.9	170

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55	Photon shell game in three-resonator circuit quantum electrodynamics. Nature Physics, 2011, 7, 287-293.	6.5	114
56	Coherence in a transmon qubit with epitaxial tunnel junctions. Applied Physics Letters, 2011, 99, .	1.5	47
57	Measurement of energy decay in superconducting qubits from nonequilibrium quasiparticles. Physical Review B, 2011, 84, .	1.1	81
58	Fast Tunable Coupler for Superconducting Qubits. Physical Review Letters, 2011, 106, 060501.	2.9	98
59	Implementing the Quantum von Neumann Architecture with Superconducting Circuits. Science, 2011, 334, 61-65.	6.0	246
60	Wirebond crosstalk and cavity modes in large chip mounts for superconducting qubits. Superconductor Science and Technology, 2011, 24, 065001.	1.8	50
61	Phase qubits fabricated with trilayer junctions. Superconductor Science and Technology, 2011, 24, 055005.	1.8	17
62	Reduced phase error through optimized control of a superconducting qubit. Physical Review A, 2010, 82, .	1.0	76
63	Quantum ground state and single-phonon control of a mechanical resonator. Nature, 2010, 464, 697-703.	13.7	1,677
64	Generation of three-qubit entangled states using superconducting phase qubits. Nature, 2010, 467, 570-573.	13.7	342
65	Visualizing supercurrents in ferromagnetic Josephson junctions with various arrangements of 0 and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ï€</mml:mi></mml:math>segments. Physical Review B, 2010, 81, .	1.1	28
66	Josephson supercurrent in Nb/InN-nanowire/Nb junctions. Applied Physics Letters, 2010, 96, 132504.	1.5	29
67	Probing Cu doped Ge0.3Se0.7 based resistance switching memory devices with random telegraph noise. Journal of Applied Physics, 2010, 107, .	1.1	91
68	Magnetic interference patterns in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>0</mml:mn><mml:mtext>â˜’</mml:mtext><mml:mi>Ï€</mml:mi></mml:mrow></mml:math>su Josephson junctions: Effects of asymmetry between 0 and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ï€</mml:mi></mml:math>regions. Physical Review B, 2010, 81, .	1.1	50
69	Interference patterns of multifacet<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>20</mml:mn><mml:mo>Ã—</mml:mo><mml:mrow><mml:mo>(</mml:mo><mml:mn>0</mml:mn> junctions with ferromagnetic barrier. Physical Review B, 2010, 81, .	1.1	13
70	Critical current diffraction pattern of SIFS Josephson junctions with a step-like F-layer. Superconductor Science and Technology, 2010, 23, 095007.	1.8	9
71	Quantum process tomography of two-qubit controlled-Z and controlled-NOT gates using superconducting phase qubits. Physical Review B, 2010, 82, .	1.1	93
72	Evidence for triplet superconductivity in Josephson junctions with barriers of the ferromagnetic Heusler alloy<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Cu</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msu Physical Review B, 2010, 82, .	1.1	147

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73	Josephson tunnel junctions with a strong ferromagnetic interlayer. Physical Review B, 2009, 79, .	1.1	85
74	Decoherence Dynamics of Complex Photon States in a Superconducting Circuit. Physical Review Letters, 2009, 103, 200404.	2.9	44
75	Observation of Josephson coupling through an interlayer of antiferromagnetically ordered chromium. Physical Review B, 2009, 80, .	1.1	8
76	Improving the coherence time of superconducting coplanar resonators. Applied Physics Letters, 2009, 95, .	1.5	145
77	Josephson Junctions With Centered Step and Local Variation of Critical Current Density. IEEE Transactions on Applied Superconductivity, 2009, 19, 689-692.	1.1	3
78	Josephson tunnel junctions with ferromagnetic Fe_{0.75}Co_{0.25}barriers. Journal Physics D: Applied Physics, 2009, 42, 075005.	1.3	11
79	Violation of Bell's inequality in Josephson phase qubits. Nature, 2009, 461, 504-506.	13.7	357
80	Static and dynamic properties of 0,<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Ï€</mml:mi></mml:math>, and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>0</mml:mn><mml:mtext>â^’</mml:mtext><mml:mi>Ï€</mml:mi></mml:mrow></mml:math>fe Josephson tunnel junctions. Physical Review B, 2008, 77, .	1.1	65
81	Low current resistive switching in Cuâ€“SiO2 cells. Applied Physics Letters, 2008, 92, .	1.5	185
82	Ultra-low current resistive memory based on Cu-SiO<inf>2</inf>. , 2008, , .		0
83	Magnetic anisotropy in ferromagnetic Josephson junctions. Applied Physics Letters, 2008, 93, .	1.5	23
84	Properties of tunnel Josephson junctions with a ferromagnetic interlayer. Physical Review B, 2008, 77, .	1.1	49
85	A Novel Dual-Layered Electrolytic Resistance Memory with Enhanced Retention. , 2008, , .		2
86	Low-Tc Josephson junctions with tailored barrier. Journal of Applied Physics, 2007, 101, 063902.	1.1	26
87	Ferromagnetic 0â€“Ï€ Josephson junctions. Applied Physics A: Materials Science and Processing, 2007, 89, 613-617.	1.1	13
88	Resonant tunneling magnetoresistance in antiferromagnetically coupled Fe-based structures with multilayered Si/Ge spacers. Applied Physics Letters, 2006, 88, 172105.	1.5	6
89	Resistive switching of rose bengal devices: A molecular effect?. Journal of Applied Physics, 2006, 100, 094504.	1.1	48
90	Fabrication of high quality ferromagnetic Josephson junctions. Physica C: Superconductivity and Its Applications, 2006, 437-438, 349-352.	0.6	28

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91	0â^Ï€Josephson Tunnel Junctions with Ferromagnetic Barrier. Physical Review Letters, 2006, 97, 247001.	2.9	146
92	High quality ferromagnetic 0 and Ï€ Josephson tunnel junctions. Applied Physics Letters, 2006, 89, 122511.	1.5	118
93	Atomic Structure of Î²-Tantalum Nanocrystallites. Microscopy and Microanalysis, 2005, 11, 534-544.	0.2	8