

Shiro Saito

List of Publications by Year in descending order

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39
papers

1,674
citations

394421

19
h-index

345221

36
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40
all docs

40
docs citations

40
times ranked

1686
citing authors

#	ARTICLE	IF	CITATIONS
1	Control of the transition frequency of a superconducting flux qubit by longitudinal coupling to the photon number degree of freedom in a resonator. <i>Physical Review B</i> , 2020, 102, .	3.2	2
2	Driven-state relaxation of a coupled qubit-defect system in spin-locking measurements. <i>Physical Review B</i> , 2020, 102, .	3.2	5
3	Architecture to achieve nuclear magnetic resonance spectroscopy with a superconducting flux qubit. <i>Physical Review A</i> , 2020, 101, .	2.5	4
4	Electron spin resonance with up to 20 spin sensitivity measured using a superconducting flux qubit. <i>Applied Physics Letters</i> , 2020, 116, .	3.3	16
5	Projecting an ultra-strongly-coupled system in a non-energy-eigenbasis with a driven nonlinear resonator. <i>Scientific Reports</i> , 2020, 10, 1751.	3.3	3
6	Bandwidth analysis of AC magnetic field sensing based on electronic spin double-resonance of nitrogen-vacancy centers in diamond. <i>Japanese Journal of Applied Physics</i> , 2019, 58, 100901.	1.5	13
7	Demonstration of vector magnetic field sensing by simultaneous control of nitrogen-vacancy centers in diamond using multi-frequency microwave pulses. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	20
8	Electron paramagnetic resonance spectroscopy using a single artificial atom. <i>Communications Physics</i> , 2019, 2, .	5.3	24
9	A long-lived capacitively shunted flux qubit embedded in a 3D cavity. <i>Applied Physics Letters</i> , 2019, 115, .	3.3	28
10	Phonon-bottlenecked spin relaxation of $\text{Er}^{3+}:\text{Y}_2\text{SiO}_5$ at sub-kelvin temperatures. <i>Applied Physics Express</i> , 2018, 11, 043002.	2.4	12
11	Optimization of Temperature Sensitivity Using the Optically Detected Magnetic-Resonance Spectrum of a Nitrogen-Vacancy Center Ensemble. <i>Physical Review Applied</i> , 2018, 10, .	3.8	40
12	AC magnetic field sensing using continuous-wave optically detected magnetic resonance of nitrogen-vacancy centers in diamond. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	24
13	Electron paramagnetic resonance spectroscopy of $\text{Er}^{3+}:\text{Y}_2\text{SiO}_5$ using a Josephson bifurcation amplifier: Observation of hyperfine and quadrupole structures. <i>Physical Review Materials</i> , 2018, 2, .	2.4	14
14	Vector-magnetic-field sensing via multifrequency control of nitrogen-vacancy centers in diamond. <i>Physical Review A</i> , 2017, 96, .	2.5	25
15	Projective measurement of energy on an ensemble of qubits with unknown frequencies. <i>Physical Review A</i> , 2017, 95, .	2.5	7
16	Superconducting qubit "oscillator" circuit beyond the ultrastrong-coupling regime. <i>Nature Physics</i> , 2017, 13, 44-47.	16.7	462
17	Electron paramagnetic resonance spectroscopy using a direct current-SQUID magnetometer directly coupled to an electron spin ensemble. <i>Applied Physics Letters</i> , 2016, 108, 052601.	3.3	21
18	Superradiance with an ensemble of superconducting flux qubits. <i>Physical Review B</i> , 2016, 94, .	3.2	34

#	ARTICLE	IF	CITATIONS
19	Observation of Collective Coupling between an Engineered Ensemble of Macroscopic Artificial Atoms and a Superconducting Resonator. <i>Physical Review Letters</i> , 2016, 117, 210503.	7.8	62
20	A strict experimental test of macroscopic realism in a superconducting flux qubit. <i>Nature Communications</i> , 2016, 7, 13253.	12.8	105
21	Characterization and Control of Measurement-Induced Dephasing on Superconducting Flux Qubit with a Josephson Bifurcation Amplifier. <i>Journal of the Physical Society of Japan</i> , 2016, 85, 104801.	1.6	2
22	Superconductor-Diamond Hybrid Quantum System. <i>Lecture Notes in Physics</i> , 2016, , 515-538.	0.7	0
23	Proposed Robust Entanglement-Based Magnetic Field Sensor Beyond the Standard Quantum Limit. <i>Physical Review Letters</i> , 2015, 115, 170801.	7.8	44
24	Spin Amplification in an Inhomogeneous System. <i>Journal of the Physical Society of Japan</i> , 2015, 84, 103001.	1.6	1
25	Self-aligned gate-all-around InAs/InP core-shell nanowire field-effect transistors. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 04DN04.	1.5	5
26	Improving the lifetime of the nitrogen-vacancy-center ensemble coupled with a superconducting flux qubit by applying magnetic fields. <i>Physical Review A</i> , 2015, 91, .	2.5	24
27	Improving the Coherence Time of a Quantum System via a Coupling to a Short-Lived System. <i>Physical Review Letters</i> , 2015, 114, 120501.	7.8	23
28	Hybridization: When two wrongs make a right. , 2015, , .		0
29	Observation of dark states in a superconductor diamond quantum hybrid system. <i>Nature Communications</i> , 2014, 5, 3424.	12.8	44
30	Towards Realizing a Quantum Memory for a Superconducting Qubit: Storage and Retrieval of Quantum States. <i>Physical Review Letters</i> , 2013, 111, 107008.	7.8	97
31	Encapsulated gate-all-around InAs nanowire field-effect transistors. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	18
32	Hybridization of superconducting flux qubits and diamond ensembles: a route to local gates for quantum repeaters. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
33	Hybridization of superconducting flux qubits and diamond ensembles. , 2013, , .		0
34	Coherent coupling of a superconducting flux qubit to an electron spin ensemble in diamond. <i>Nature</i> , 2011, 478, 221-224.	27.8	387
35	Coherent operation of a gap-tunable flux qubit. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	62
36	Quantum Time Evolution in a Qubit Readout Process with a Josephson Bifurcation Amplifier. <i>Physical Review Letters</i> , 2009, 102, 257003.	7.8	21

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37	Determination of the capacitance of nm scale Josephson junctions. Journal of Applied Physics, 2004, 95, 2607-2613.	2.5	12
38	Observation of Qubit State with a dc-SQUID and Dissipation Effect in the SQUID. Physica Scripta, 2002, T102, 95.	2.5	10
39	Readout of the qubit state with a dc-SQUID. Superlattices and Microstructures, 2002, 32, 221-229.	3.1	2