Shiro Saito

List of Publications by Year
in descending order

39 papers	1,674 citations	394421 19 h-index	345221 36 g-index
40 all docs	40 docs citations	40 times ranked	1686 citing authors

#	Article	IF	Citations
1	Superconducting qubitâ€"oscillator circuit beyond the ultrastrong-coupling regime. Nature Physics, 2017, 13, 44-47.	16.7	462
2	Coherent coupling of a superconducting flux qubit to an electron spin ensemble in diamond. Nature, 2011, 478, 221-224.	27.8	387
3	A strict experimental test of macroscopic realism in a superconducting flux qubit. Nature Communications, 2016, 7, 13253.	12.8	105
4	Towards Realizing a Quantum Memory for a Superconducting Qubit: Storage and Retrieval of Quantum States. Physical Review Letters, 2013, 111, 107008.	7.8	97
5	Coherent operation of a gap-tunable flux qubit. Applied Physics Letters, 2010, 97, .	3.3	62
6	Observation of Collective Coupling between an Engineered Ensemble of Macroscopic Artificial Atoms and a Superconducting Resonator. Physical Review Letters, 2016, 117, 210503.	7.8	62
7	Observation of dark states in a superconductor diamond quantum hybrid system. Nature Communications, 2014, 5, 3424.	12.8	44
8	Proposed Robust Entanglement-Based Magnetic Field Sensor Beyond the Standard Quantum Limit. Physical Review Letters, 2015, 115, 170801.	7.8	44
9	Optimization of Temperature Sensitivity Using the Optically Detected Magnetic-Resonance Spectrum of a Nitrogen-Vacancy Center Ensemble. Physical Review Applied, 2018, 10, .	3.8	40
10	Superradiance with an ensemble of superconducting flux qubits. Physical Review B, 2016, 94, .	3.2	34
11	A long-lived capacitively shunted flux qubit embedded in a 3D cavity. Applied Physics Letters, 2019, 115, .	3.3	28
12	Vector-magnetic-field sensing via multifrequency control of nitrogen-vacancy centers in diamond. Physical Review A, 2017, 96, .	2.5	25
13	Improving the lifetime of the nitrogen-vacancy-center ensemble coupled with a superconducting flux qubit by applying magnetic fields. Physical Review A, 2015, 91, .	2.5	24
14	AC magnetic field sensing using continuous-wave optically detected magnetic resonance of nitrogen-vacancy centers in diamond. Applied Physics Letters, 2018, 113, .	3.3	24
15	Electron paramagnetic resonance spectroscopy using a single artificial atom. Communications Physics, 2019, 2, .	5.3	24
16	Improving the Coherence Time of a Quantum System via a Coupling to a Short-Lived System. Physical Review Letters, 2015, 114, 120501.	7.8	23
17	Quantum Time Evolution in a Qubit Readout Process with a Josephson Bifurcation Amplifier. Physical Review Letters, 2009, 102, 257003.	7.8	21
18	Electron paramagnetic resonance spectroscopy using a direct current-SQUID magnetometer directly coupled to an electron spin ensemble. Applied Physics Letters, 2016, 108, 052601.	3.3	21

#	Article	IF	Citations
19	Demonstration of vector magnetic field sensing by simultaneous control of nitrogen-vacancy centers in diamond using multi-frequency microwave pulses. Applied Physics Letters, 2019, 114, .	3.3	20
20	Encapsulated gate-all-around InAs nanowire field-effect transistors. Applied Physics Letters, 2013, 103, .	3.3	18
21	Electron spin resonance with up to 20 spin sensitivity measured using a superconducting flux qubit. Applied Physics Letters, 2020, 116, .	3.3	16
22	Electron paramagnetic resonance spectroscopy of Er3+:Y2SiO5 using a Josephson bifurcation amplifier: Observation of hyperfine and quadrupole structures. Physical Review Materials, 2018, 2, .	2.4	14
23	Bandwidth analysis of AC magnetic field sensing based on electronic spin double-resonance of nitrogen-vacancy centers in diamond. Japanese Journal of Applied Physics, 2019, 58, 100901.	1.5	13
24	Determination of the capacitance of nm scale Josephson junctions. Journal of Applied Physics, 2004, 95, 2607-2613.	2.5	12
25	Phonon-bottlenecked spin relaxation of Er³⁺:Y₂SiO₅at sub-kelvin temperatures. Applied Physics Express, 2018, 11, 043002.	2.4	12
26	Observation of Qubit State with a dc-SQUID and Dissipation Effect in the SQUID. Physica Scripta, 2002, T102, 95.	2.5	10
27	Projective measurement of energy on an ensemble of qubits with unknown frequencies. Physical Review A, 2017, 95, .	2.5	7
28	Self-aligned gate-all-around InAs/InP coreâ€“shell nanowire field-effect transistors. Japanese Journal of Applied Physics, 2015, 54, 04DN04.	1.5	5
29	Driven-state relaxation of a coupled qubit-defect system in spin-locking measurements. Physical Review B, 2020, 102, .	3.2	5
30	Architecture to achieve nuclear magnetic resonance spectroscopy with a superconducting flux qubit. Physical Review A, 2020, 101, .	2.5	4
31	Projecting an ultra-strongly-coupled system in a non-energy-eigenbasis with a driven nonlinear resonator. Scientific Reports, 2020, 10, 1751.	3.3	3
32	Readout of the qubit state with a dc-SQUID. Superlattices and Microstructures, 2002, 32, 221-229.	3.1	2
33	Characterization and Control of Measurement-Induced Dephasing on Superconducting Flux Qubit with a Josephson Bifurcation Amplifier. Journal of the Physical Society of Japan, 2016, 85, 104801.	1.6	2
34	Control of the transition frequency of a superconducting flux qubit by longitudinal coupling to the photon number degree of freedom in a resonator. Physical Review B, 2020, 102, .	3.2	2
35	Spin Amplification in an Inhomogeneous System. Journal of the Physical Society of Japan, 2015, 84, 103001.	1.6	1
36	Hybridization of superconducting flux qubits and diamond ensembles: a route to local gates for quantum repeaters. Proceedings of SPIE, 2013, , .	0.8	0

#	Article	IF	Citations
37	Superconductor-Diamond Hybrid Quantum System. Lecture Notes in Physics, 2016, , 515-538.	0.7	0
38	Hybridization of superconducting flux qubits and diamond ensembles. , 2013, , .		0
39	Hybridization: When two wrongs make a right. , 2015, , .		0