# Xiaobo Zhu

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/466608/publications.pdf

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| 40 | 3,296 | 236925 | 289244 |
|---|---|---|---|
| papers | citations | 25 h-index | 40 g-index |

| 41 | 41 | 41 | 2574 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Strong Quantum Computational Advantage Using a Superconducting Quantum Processor. Physical Review Letters, 2021, 127, 180501. | 7.8 | 491 |
| 2 | Coherent coupling of a superconducting flux qubit to an electron spin ensemble in diamond. Nature, 2011, 478, 221-224. | 27.8 | 387 |
| 3 | 10-Qubit Entanglement and Parallel Logic Operations with a Superconducting Circuit. Physical Review Letters, 2017, 119, 180511. | 7.8 | 313 |
| 4 | Quantum walks on a programmable two-dimensional 62-qubit superconducting processor. Science, 2021, 372, 948-952. | 12.6 | 202 |
| 5 | Emulating Many-Body Localization with a Superconducting Quantum Processor. Physical Review Letters, 2018, 120, 050507. | 7.8 | 189 |
| 6 | Strongly correlated quantum walks with a 12-qubit superconducting processor. Science, 2019, 364, 753-756. | 12.6 | 169 |
| 7 | Superconducting quantum computing: a review. Science China Information Sciences, 2020, 63, 1. | 4.3 | 152 |
| 8 | Genuine 12-Qubit Entanglement on a Superconducting Quantum Processor. Physical Review Letters, 2019, 122, 110501. | 7.8 | 136 |
| 9 | Quantum computational advantage via 60-qubit 24-cycle random circuit sampling. Science Bulletin, 2022, 67, 240-245. | 9.0 | 114 |
| 10 | Towards Realizing a Quantum Memory for a Superconducting Qubit: Storage and Retrieval of Quantum States. Physical Review Letters, 2013, 111, 107008. | 7.8 | 97 |
| 11 | Realization of an Error-Correcting Surface Code with Superconducting Qubits. Physical Review Letters, 2022, 129, . | 7.8 | 94 |
| 12 | Propagation and Localization of Collective Excitations on a 24-Qubit Superconducting Processor. Physical Review Letters, 2019, 123, 050502. | 7.8 | 87 |
| 13 | Experimental Quantum Generative Adversarial Networks for Image Generation. Physical Review Applied, 2021, 16, . | 3.8 | 87 |
| 14 | Solving Systems of Linear Equations with a Superconducting Quantum Processor. Physical Review Letters, 2017, 118, 210504. | 7.8 | 76 |
| 15 | Continuous-variable geometric phase and its manipulation for quantum computation in a superconducting circuit. Nature Communications, 2017, 8, 1061. | 12.8 | 64 |
| 16 | Coherent operation of a gap-tunable flux qubit. Applied Physics Letters, 2010, 97, . | 3.3 | 62 |
| 17 | Synthesis of antisymmetric spin exchange interaction and chiral spin clusters in superconducting circuits. Nature Physics, 2019, 15, 382-386. | 16.7 | 58 |
| 18 | Preparation of interlayer surface tailored protonated double-layered perovskite H<sub>2</sub>CaTa<sub>2</sub>O<sub>7</sub>with n-alcohols, and their photocatalytic activity. RSC Advances, 2014, 4, 4047-4054. | 3.6 | 40 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Demonstration of Topological Robustness of Anyonic Braiding Statistics with a Superconducting Quantum Circuit. Physical Review Letters, 2018, 121, 030502. | 7.8 | 40 |
| 20 | An efficient and compact switch for quantum circuits. Npj Quantum Information, 2018, 4, . | 6.7 | 39 |
| 21 | Dephasing-Insensitive Quantum Information Storage and Processing with Superconducting Qubits. Physical Review Letters, 2018, 121, 130501. | 7.8 | 33 |
| 22 | Demonstration of Adiabatic Variational Quantum Computing with a Superconducting Quantum Coprocessor. Physical Review Letters, 2020, 125, 180501. | 7.8 | 33 |
| 23 | Ruling Out Real-Valued Standard Formalism of Quantum Theory. Physical Review Letters, 2022, 128, 040403. | 7.8 | 31 |
| 24 | Emulating Quantum Teleportation of a Majorana Zero Mode Qubit. Physical Review Letters, 2021, 126, 090502. | 7.8 | 30 |
| 25 | Experimental characterization of the quantum many-body localization transition. Physical Review Research, 2021, 3, . | 3.6 | 27 |
| 26 | Observation of Thermalization and Information Scrambling in a Superconducting Quantum Processor. Physical Review Letters, 2022, 128, 160502. | 7.8 | 26 |
| 27 | 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 |
| 28 | Electron paramagnetic resonance spectroscopy using a single artificial atom. Communications Physics, 2019, 2, . | 5.3 | 24 |
| 29 | Realisation of high-fidelity nonadiabatic CZ gates with superconducting qubits. Npj Quantum Information, 2019, 5, . | 6.7 | 23 |
| 30 | Experimental exploration of five-qubit quantum error-correcting code with superconducting qubits. National Science Review, 2022, 9, nwab011. | 9.5 | 22 |
| 31 | 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 |
| 32 | Ergodic-Localized Junctions in a Periodically Driven Spin Chain. Physical Review Letters, 2020, 125, 170503. | 7.8 | 18 |
| 33 | Observation of Strong and Weak Thermalization in a Superconducting Quantum Processor. Physical Review Letters, 2021, 127, 020602. | 7.8 | 16 |
| 34 | Engineering entangled microwave photon states through multiphoton interactions between two cavity fields and a superconducting qubit. Scientific Reports, 2016, 6, 23646. | 3.3 | 15 |
| 35 | Quantum-Teleportation-Inspired Algorithm for Sampling Large Random Quantum Circuits. Physical Review Letters, 2020, 124, 080502. | 7.8 | 14 |
| 36 | Fabrication and characterization of ultra-low noise narrow and wide band Josephson parametric amplifiers. Chinese Physics B, 2017, 26, 094203. | 1.4 | 13 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Realization of High-Fidelity Controlled-Phase Gates in Extensible Superconducting Qubits Design with a Tunable Coupler. Chinese Physics Letters, 2021, 38, 100301. | 3.3 | 13 |
| 38 | <scp>d</scp>-Glucopyranose-modified compound of Ruddlesdenâ€“Popper phases H<sub>2</sub>CaTa<sub>2</sub>O<sub>7</sub>: characterization and intercalation with Ag. Journal of Materials Chemistry A, 2014, 2, 15590. | 10.3 | 11 |
| 39 | 12 superconducting qubits for quantum walks. Frontiers of Physics, 2019, 14, 1. | 5.0 | 3 |
| 40 | Verification of a resetting protocol for an uncontrolled superconducting qubit. Npj Quantum Information, 2020, 6, . | 6.7 | 2 |