Joseph M Lukens

List of Publications by Year
in descending order

79	1,886	361388 20	254170 43
papers	citations	h-index	g-index

80	80	80	1522
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Quantum optical microcombs. Nature Photonics, 2019, 13, 170-179.	31.4	295
2	Frequency-encoded photonic qubits for scalable quantum information processing. Optica, 2017, 4, 8.	9.3	200
3	50-GHz-spaced comb of high-dimensional frequency-bin entangled photons from an on-chip silicon nitride microresonator. Optics Express, 2018, 26, 1825.	3.4	134
4	Electro-Optic Frequency Beam Splitters and Tritters for High-Fidelity Photonic Quantum Information Processing. Physical Review Letters, 2018, 120, 030502.	7.8	126
5	A temporal cloak at telecommunication data rate. Nature, 2013, 498, 205-208.	27.8	103
6	High-dimensional optical quantum logic in large operational spaces. Npj Quantum Information, 2019, 5, .	6.7	92
7	Quantum interference and correlation control of frequency-bin qubits. Optica, 2018, 5, 1455.	9.3	88
8	Simulations of subatomic many-body physics on a quantum frequency processor. Physical Review A, 2019, 100, .	2.5	87
9	A practical and efficient approach for Bayesian quantum state estimation. New Journal of Physics, 2020, 22, 063038.	2.9	68
10	Roadmap on transformation optics. Journal of Optics (United Kingdom), 2018, 20, 063001.	2.2	64
11	A controlled-NOT gate for frequency-bin qubits. Npj Quantum Information, 2019, 5, .	6.7	61
12	Quantum secret sharing with polarization-entangled photon pairs. Physical Review A, 2019, 99, .	2.5	48
13	Reconfigurable Quantum Local Area Network Over Deployed Fiber. PRX Quantum, 2021, 2, .	9.2	46
14	Adaptive bandwidth management for entanglement distribution in quantum networks. Optica, 2021, 8, 329.	9.3	41
15	Orthogonal Spectral Coding of Entangled Photons. Physical Review Letters, 2014, 112, 133602.	7.8	40
16	Quantum Information Processing With Frequency-Comb Qudits. IEEE Photonics Technology Letters, 2019, 31, 1858-1861.	2.5	34
17	Demonstration of High-Order Dispersion Cancellation with an Ultrahigh-Efficiency Sum-Frequency Correlator. Physical Review Letters, 2013, 111, 193603.	7.8	33
18	Fully Arbitrary Control of Frequency-Bin Qubits. Physical Review Letters, 2020, 125, 120503.	7.8	33

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19	Temporal cloaking for data suppression and retrieval. Optica, 2014, 1, 372.	9.3	30
20	Biphoton manipulation with a fiber-based pulse shaper. Optics Letters, 2013, 38, 4652.	3.3	22
21	Quantum frequency combs and Hongâ€“Ouâ€“Mandel interferometry: the role of spectral phase coherence. Optics Express, 2019, 27, 38683.	3.4	20
22	Generation of biphoton correlation trains through spectral filtering. Optics Express, 2014, 22, 9585.	3.4	17
23	A Bayesian analysis of classical shadows. Npj Quantum Information, 2021, 7, .	6.7	16
24	A broadband fiber-optic nonlinear interferometer. Applied Physics Letters, 2018, 113, .	3.3	15
25	All-Optical Frequency Processor for Networking Applications. Journal of Lightwave Technology, 2020, 38, 1678-1687.	4.6	15
26	Naturally stable Sagnacâ€“Michelson nonlinear interferometer. Optics Letters, 2016, 41, 5438.	3.3	15
27	High-dimensional discrete Fourier transform gates with a quantum frequency processor. Optics Express, 2022, 30, 10126.	3.4	15
28	Reconfigurable generation and measurement of mutually unbiased bases for time-bin qudits. Applied Physics Letters, 2018, 112, .	3.3	14
29	Advanced architectures for high-performance quantum networking. Journal of Optical Communications and Networking, 2022, 14, 493.	4.8	14
30	Electro-optic modulation for high-speed characterization of entangled photon pairs. Optics Letters, 2015, 40, 5331.	3.3	13
31	Tunable delay control of entangled photons based on dispersion cancellation. Optics Express, 2015, 23, 21857.	3.4	12
32	Improving application performance with biased distributions of quantum states. Physical Review Research, 2021, 3, .	3.6	12
33	Efficient compressive and Bayesian characterization of biphoton frequency spectra. Optics Letters, 2020, 45, 2886.	3.3	9
34	Quantum Memristors in Frequency-Entangled Optical Fields. Materials, 2020, 13, 864.	2.9	7
35	Bell state analyzer for spectrally distinct photons. Optica, 2022, 9, 280.	9.3	7
36	Bayesian homodyne and heterodyne tomography. Optics Express, 2022, 30, 15184.	3.4	6

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37	Non-Gaussian photonic state engineering with the quantum frequency processor. Physical Review A, 2021, 104, .	2.5	5
38	A Reconfigurable Quantum Local Area Network Over Deployed Fiber. , 2021, , .		4
39	Agile frequency transformations for dense wavelength-multiplexed communications. Optics Express, 2020, 28, 20379.	3.4	4
40	Equalization of Intensity-Modulated Fiber-Optic Voltage Sensors for Power Distribution Systems. IEEE Photonics Technology Letters, 2021, 33, 880-883.	2.5	3
41	Quantum information processing with frequency-bin qubits: progress, status, and challenges. , 2019, , .		3
42	Classical shadows and Bayesian mean estimation: a comparison. , 2021, , .		2
43	Bayesian inference for plasmonic nanometrology. Physical Review A, 2021, 104, .	2.5	2
44	Adaptive bandwidth management for entanglement distribution in a fully-connected fiber-optic network. , 2020, , .		2
45	Lessons Learned on the Interface Between Quantum and Conventional Networking. Communications in Computer and Information Science, 2022, , 262-279.	0.5	2
46	Optimal resource allocation for flexible-grid entanglement distribution networks. Optics Express, 2022, 30, 24375.	3.4	2
47	Biphoton Pulse Shaping. Springer Series in Optical Sciences, 2015, , 423-448.	0.7	1
48	High-speed switching of biphoton delays through electro-optic pump frequency modulation. APL Photonics, 2017, 2, 011301.	5.7	1
49	Two-qudit deterministic optical quantum logic in a single photon. , 2018, , .		1
50	Spectral phase coherence in HOM interferometry. , 2019, , .		1
51	Subatomic Many-Body Physics Simulations on a Quantum Frequency Processor. , 2019, , .		1
52	Encoding and decoding of biphoton wavepackets. , 2014, , .		0
53	Record-efficiency biphoton correlator and observation of high-order dispersion cancellation. , 2014, , .		0
54	Temporal cloaking enhancements for optical communication. , 2015, , .		0

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55	All-Optical Processing with Dynamic Frequency Transformations. , 2019, , .		0
56	Scaling the discrete Fourier transform gate in the quantum frequency processor. , 2021, , .		0
57	A programmable electro-optic Bell-state analyzer for spectrally distinguishable photons. , 2021, , .		0
58	High-dimensional frequency-bin tomography with random measurements. , 2021, , .		0
59	Observation of the temporal Talbot effect for entangled photons. , 2014, , .		0
60	Rapid Delay Modulation of Biphotons. , 2016, , .		0
61	Modulation technique for improving temporal resolution in biphoton coincidence measurements. , 2016, , .		0
62	Electro-optic frequency beamsplitter for quantum networking applications. , 2017, , .		0
63	A nonlinear interferometer with intrinsic stability. , 2017, , .		0
64	Experimental demonstration of CNOT gate for frequency-encoded qubits. , 2018, , .		0
65	Mutually unbiased bases for time-bin qudits. , 2018, , .		0
66	Generation of a non-separable two-qudit state using a time-frequency SUM operation. , 2019, , .		0
67	Bayesian machine learning of frequency-bin CNOT. , 2019, , .		0
68	Compressive characterization of biphoton frequency spectra. , 2020, , .		0
69	Arbitrary single-qubit transformations on a quantum frequency processor. , 2020, , .		0
70	Polarization diversity phase modulator for frequency-bin operations with hyperentangled biphoton frequency combs. , 2020, , .		0
71	All-optical frequency hopping and broadcasting in wavelength-multiplexed channels. , 2020, , .		0
72	Harnessing entanglement in polarization state and frequency-bin for quantum communication and networking. , 2020, , .		0

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73	Flex-grid spectrum allocation for entanglement distribution in quantum networks. , 2020, , .		0
74	Remote State Preparation in a Reconfigurable Quantum Local Area Network. , 2021, , .		0
75	A Bell-state analyzer for photonic frequency. , 2020, , .		0
76	Computationally efficient Bayesian quantum state tomography. , 2020, , .		0
77	Characterization and equalization of intensity-modulated voltage sensors. , 2020, , .		0
78	Bayesian reconstruction of biphoton frequency correlations. , 2020, , .		0
79	Randomized tomography of on-chip biphoton frequency combs. , 2021, , .		0