

Serge Massar

List of Publications by Year in descending order

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77
papers

6,522
citations

126907

33
h-index

91884

69
g-index

78
all docs

78
docs citations

78
times ranked

4403
citing authors

#	ARTICLE	IF	CITATIONS
1	Photonic reservoir computer based on frequency multiplexing. Optics Letters, 2022, 47, 782.	3.3	11
2	Parallel Extreme Learning Machines Based on Frequency Multiplexing. Applied Sciences (Switzerland), 2022, 12, 214.	2.5	1
3	Total functions in QMA. Quantum Information Processing, 2021, 20, 1.	2.2	1
4	Resource efficient single photon source based on active frequency multiplexing. Optics Letters, 2021, 46, 2832-2835.	3.3	1
5	Photonic Reservoir Computer with Output Expansion for Unsupervised Parameter Drift Compensation. Entropy, 2021, 23, 955.	2.2	4
6	Photonic extreme learning machine based on frequency multiplexing. Optics Express, 2021, 29, 28257.	3.4	15
7	Characterising the intersection of QMA and coQMA. Quantum Information Processing, 2021, 20, 1.	2.2	0
8	Phase Noise Robustness of a Coherent Spatially Parallel Optical Reservoir. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-10.	2.9	6
9	Distributed Kerr Non-linearity in a Coherent All-Optical Fiber-Ring Reservoir Computer. Frontiers in Physics, 2019, 7, .	2.1	10
10	Random Pattern and Frequency Generation Using a Photonic Reservoir Computer with Output Feedback. Neural Processing Letters, 2018, 47, 1041-1054.	3.2	3
11	Spying on chaos-based cryptosystems with reservoir computing. , 2018, , .		4
12	Using a reservoir computer to learn chaotic attractors, with applications to chaos synchronization and cryptography. Physical Review E, 2018, 98, 012215.	2.1	65
13	Nonlinear optical interactions in silicon waveguides. Nanophotonics, 2017, 6, 377-392.	6.0	18
14	Towards autonomous photonic reservoir computer based on frequency parallelism of neurons. , 2017, , .		2
15	Online Training for High-Performance Analogue Readout Layers in Photonic Reservoir Computers. Cognitive Computation, 2017, 9, 297-306.	5.2	11
16	Brain-Inspired Photonic Signal Processor for Generating Periodic Patterns and Emulating Chaotic Systems. Physical Review Applied, 2017, 7, .	3.8	47
17	Online Training of an Opto-Electronic Reservoir Computer Applied to Real-Time Channel Equalization. IEEE Transactions on Neural Networks and Learning Systems, 2017, 28, 2686-2698.	11.3	59
18	Photonic reservoir computer with output feedback for chaotic time series prediction. , 2017, , .		2

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19	Embodiment of Learning in Electro-Optical Signal Processors. Physical Review Letters, 2016, 117, 128301.	7.8	22
20	Measuring the nonlinear refractive index of graphene using the optical Kerr effect method. Optics Letters, 2016, 41, 3281.	3.3	92
21	Towards Adjustable Signal Generation with Photonic Reservoir Computers. Lecture Notes in Computer Science, 2016, , 374-381.	1.3	3
22	Pattern and Frequency Generation Using an Opto-Electronic Reservoir Computer with Output Feedback. Lecture Notes in Computer Science, 2016, , 318-325.	1.3	3
23	Fully analogue photonic reservoir computer. Scientific Reports, 2016, 6, 22381.	3.3	133
24	Towards pattern generation and chaotic series prediction with photonic reservoir computers. Proceedings of SPIE, 2016, , .	0.8	16
25	Virtualization of a Photonic Reservoir Computer. Journal of Lightwave Technology, 2016, 34, 2085-2091.	4.6	22
26	Autonomous all-photonic processor based on reservoir computing paradigm. , 2016, , .		6
27	Investigating the emergence of time in stationary states with trapped ions. Physical Review A, 2015, 92, .	2.5	8
28	Hyperdense coding and superadditivity of classical capacities in hypersphere theories. New Journal of Physics, 2015, 17, 113002.	2.9	9
29	Secure and Robust Transmission and Verification of Unknown Quantum States in Minkowski Space. Scientific Reports, 2015, 4, 3901.	3.3	2
30	Propagation and survival of frequency-bin entangled photons in metallic nanostructures. Nanophotonics, 2015, 4, 324-331.	6.0	6
31	High-performance photonic reservoir computer based on a coherently driven passive cavity. Optica, 2015, 2, 438.	9.3	182
32	Exponential Lower Bounds for Polytopes in Combinatorial Optimization. Journal of the ACM, 2015, 62, 1-23.	2.2	84
33	Supercontinuum generation in hydrogenated amorphous silicon waveguides at telecommunication wavelengths. Optics Express, 2014, 22, 3089.	3.4	38
34	All-optical reservoir computer based on saturation of absorption. Optics Express, 2014, 22, 10868.	3.4	132
35	Information and communication in polygon theories. Physical Review A, 2014, 89, .	2.5	12
36	Creating and manipulating entangled optical qubits in the frequency domain. Physical Review A, 2014, 89, .	2.5	22

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37	Weak Coin Flipping in a Device-Independent Setting. Lecture Notes in Computer Science, 2014, , 1-12.	1.3	6
38	Comment on "Ultra-short pulse generation by a topological insulator based saturable absorber" [Appl. Phys. Lett. 101, 211106 (2012)]. Applied Physics Letters, 2013, 103, 106101.	3.3	4
39	Security of practical private randomness generation. Physical Review A, 2013, 87, .	2.5	88
40	Z-scan measurement of the refractive index of graphene: erratum. Optics Letters, 2013, 38, 1566.	3.3	1
41	Silicon-on-insulator integrated source of polarization-entangled photons. Optics Letters, 2013, 38, 1960.	3.3	48
42	Information Processing Capacity of Dynamical Systems. Scientific Reports, 2012, 2, 514.	3.3	242
43	Implementing two-photon interference in the frequency domain with electro-optic phase modulators. New Journal of Physics, 2012, 14, 043015.	2.9	25
44	Low-power inelastic light scattering at small detunings in silicon wire waveguides at telecom wavelengths. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 1977.	2.1	10
45	All-optical reservoir computing. Optics Express, 2012, 20, 22783.	3.4	340
46	A Closer Connection Between Entanglement and Nonlocality. Physics Magazine, 2012, 5, .	0.1	1
47	Z-scan measurement of the nonlinear refractive index of graphene. Optics Letters, 2012, 37, 1856.	3.3	589
48	Bad randomness comes good. Nature Physics, 2012, 8, 447-448.	16.7	0
49	Randomness versus Nonlocality and Entanglement. Physical Review Letters, 2012, 108, 100402.	7.8	183
50	On-chip parametric amplification with 265 dB gain at telecommunication wavelengths using CMOS-compatible hydrogenated amorphous silicon waveguides. Optics Letters, 2011, 36, 552.	3.3	94
51	Nonlocality and communication complexity. Reviews of Modern Physics, 2010, 82, 665-698.	45.6	396
52	Manipulating Frequency Entangled Photons. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2010, , 58-65.	0.3	0
53	The first peptides: The evolutionary transition between prebiotic amino acids and early proteins. Journal of Theoretical Biology, 2009, 261, 531-539.	1.7	74
54	Device-independent quantum key distribution secure against collective attacks. New Journal of Physics, 2009, 11, 045021.	2.9	379

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55	Uncertainty Relation for the Discrete Fourier Transform. <i>Physical Review Letters</i> , 2008, 100, 190401.	7.8	45
56	Spontaneous growth of Raman Stokes and anti-Stokes waves in fibers. <i>Optics Letters</i> , 2007, 32, 2819.	3.3	9
57	Photon pair source based on parametric fluorescence in periodically poled twin-hole silica fiber. <i>Optics Express</i> , 2007, 15, 4419.	3.4	20
58	Device-Independent Security of Quantum Cryptography against Collective Attacks. <i>Physical Review Letters</i> , 2007, 98, 230501.	7.8	1,221
59	Enhanced cross phase modulation instability in birefringent photonic crystal fibers in the anomalous dispersion regime. <i>Optics Express</i> , 2006, 14, 8290.	3.4	12
60	Fiber Optics Protocols for Quantum Communication. <i>Quantum Information Processing</i> , 2006, 5, 441-449.	2.2	2
61	Efficient quantum key distribution secure against no-signalling eavesdroppers. <i>New Journal of Physics</i> , 2006, 8, 126-126.	2.9	102
62	Lower Bound on the Number of Toffoli Gates in a Classical Reversible Circuit through Quantum Information Concepts. <i>Physical Review Letters</i> , 2005, 95, 120503.	7.8	2
63	Nonlocal correlations as an information-theoretic resource. <i>Physical Review A</i> , 2005, 71, .	2.5	434
64	Quantum coin tossing and bit-string generation in the presence of noise. <i>Physical Review A</i> , 2004, 69, .	2.5	23
65	Fiber-Optics Implementation of the Deutsch-Jozsa and Bernstein-Vazirani Quantum Algorithms with Three Qubits. <i>Physical Review Letters</i> , 2003, 90, 157902.	7.8	44
66	Violation of local realism versus detection efficiency. <i>Physical Review A</i> , 2003, 68, .	2.5	48
67	Combinatorics and Quantum Nonlocality. <i>Physical Review Letters</i> , 2003, 91, 047903.	7.8	28
68	Minimum number of photons needed to distinguish two transparencies. <i>Physical Review A</i> , 2002, 65, .	2.5	7
69	Continuous-variable quantum games. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2002, 306, 73-78.	2.1	113
70	Optimal Cloning of Coherent States with a Linear Amplifier and Beam Splitters. <i>Physical Review Letters</i> , 2001, 86, 4938-4941.	7.8	131
71	Classical simulation of quantum entanglement without local hidden variables. <i>Physical Review A</i> , 2001, 63, .	2.5	51
72	State estimation for large ensembles. <i>Physical Review A</i> , 2000, 61, .	2.5	205

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73	How the change in horizon area drives black hole evaporation. Nuclear Physics B, 2000, 575, 333-356.	2.5	110
74	Optimal Entanglement Enhancement for Mixed States. Physical Review Letters, 1999, 83, 2656-2659.	7.8	60
75	A primer for black hole quantum physics. Physics Reports, 1995, 260, 329-446.	25.6	264
76	On the problem of the uniformly accelerated oscillator. Classical and Quantum Gravity, 1993, 10, 385-395.	4.0	47
77	Device-independent randomness generation with sublinear shared quantum resources. Quantum - the Open Journal for Quantum Science, 0, 2, 86.	0.0	12