Edo Waks

List of Publications by Year
in descending order

145	8,964	47004	40976
papers	citations	h-index	g-index

147	147	147	8801
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ultrabright source of polarization-entangled photons. Physical Review A, 1999, 60, R773-R776.	2.5	931
2	Controlling the Spontaneous Emission Rate of Single Quantum Dots in a Two-Dimensional Photonic Crystal. Physical Review Letters, 2005, 95, 013904.	7.8	805
3	Policing stabilizes construction of social niches in primates. Nature, 2006, 439, 426-429.	27.8	545
4	A topological quantum optics interface. Science, 2018, 359, 666-668.	12.6	518
5	Dipole Induced Transparency in Drop-Filter Cavity-Waveguide Systems. Physical Review Letters, 2006, 96, 153601.	7.8	366
6	Structure of growing social networks. Physical Review E, 2001, 64, 046132.	2.1	347
7	Quantum cryptography with a photon turnstile. Nature, 2002, 420, 762-762.	27.8	272
8	Cavity QED treatment of interactions between a metal nanoparticle and a dipole emitter. Physical Review A, 2010, 82, .	2.5	231
9	The size of the sync basin. Chaos, 2006, 16, 015103.	2.5	223
10	Two-dimensionally confined topological edge states in photonic crystals. New Journal of Physics, 2016, 18, 113013.	2.9	222
11	Reservoir observers: Model-free inference of unmeasured variables in chaotic systems. Chaos, 2017, 27, 041102.	2.5	200
12	Hybrid integration methods for on-chip quantum photonics. Optica, 2020, 7, 291.	9.3	161
13	Low-Photon-Number Optical Switching with a Single Quantum Dot Coupled to a Photonic Crystal Cavity. Physical Review Letters, 2012, 108, 227402.	7.8	157
14	Hybrid Integration of Solid-State Quantum Emitters on a Silicon Photonic Chip. Nano Letters, 2017, 17, 7394-7400.	9.1	142
15	A quantum logic gate between a solid-state quantum bit and a photon. Nature Photonics, 2013, 7, 373-377.	31.4	138
16	A single-photon switch and transistor enabled by a solid-state quantum memory. Science, 2018, 361, 57-60.	12.6	137
17	A quantum phase switch between a single solid-state spin and a photon. Nature Nanotechnology, 2016, 11, 539-544.	31.5	129
18	A room temperature continuous-wave nanolaser using colloidal quantum wells. Nature Communications, 2017, 8, 143.	12.8	119

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19	Direct Observation of Nonclassical Photon Statistics in Parametric Down-Conversion. Physical Review Letters, 2004, 92, 113602.	7.8	117
20	Two-photon interference from a bright single-photon source at telecom wavelengths. Optica, 2016, 3, 577.	9.3	115
21	Submicrosecond correlations in photoluminescence from InAs quantum dots. Physical Review B, 2004, 69, .	3.2	106
22	High-efficiency photon-number detection for quantum information processing. IEEE Journal of Selected Topics in Quantum Electronics, 2003, 9, 1502-1511.	2.9	92
23	Ultrafast nonlinear optical tuning of photonic crystal cavities. Applied Physics Letters, 2007, 90, 091118.	3.3	90
24	The effect of network topology on the stability of discrete state models of genetic control. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8209-8214.	7.1	85
25	Generation of photon number states. New Journal of Physics, 2006, 8, 4-4.	2.9	84
26	Spectral properties of networks with community structure. Physical Review E, 2009, 80, 056114.	2.1	84
27	Chiral quantum optics using a topological resonator. Physical Review B, 2020, 101, .	3.2	84
28	Simple model of epidemics with pathogen mutation. Physical Review E, 2002, 65, 031915.	2.1	81
29	Predicting Maximum Tree Heights and Other Traits from Allometric Scaling and Resource Limitations. PLoS ONE, 2011, 6, e20551.	2.5	76
30	Security aspects of quantum key distribution with sub-Poisson light. Physical Review A, 2002, 66, .	2.5	71
31	Coupled mode theory for photonic crystal cavity-waveguide interaction. Optics Express, 2005, 13, 5064.	3.4	67
32	Super-Radiant Emission from Quantum Dots in a Nanophotonic Waveguide. Nano Letters, 2018, 18, 4734-4740.	9.1	67
33	Integration of quantum dots with lithium niobate photonics. Applied Physics Letters, 2018, 113, .	3.3	66
34	Dispersive properties and large Kerr nonlinearities using dipole-induced transparency in a single-sided cavity. Physical Review A, 2006, 73, .	2.5	65
35	Onset of irreversibility in cyclic shear of granular packings. Physical Review E, 2012, 85, 021309.	2.1	63
36	Integrated Photonic Platform for Rare-Earth Ions in Thin Film Lithium Niobate. Nano Letters, 2020, 20, 741-747.	9.1	60

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37	Strong coupling between two quantum dots and a photonic crystal cavity using magnetic field tuning. Optics Express, 2011, 19, 2589.	3.4	58
38	All-optical coherent control of vacuum Rabi oscillations. Nature Photonics, 2014, 8, 858-864.	31.4	58
39	Resynchronization of circadian oscillators and the east-west asymmetry of jet-lag. Chaos, 2016, 26, 094811.	2.5	58
40	Coupling Emission from Single Localized Defects in Two-Dimensional Semiconductor to Surface Plasmon Polaritons. Nano Letters, 2017, 17, 6564-6568.	9.1	57
41	Annotation Enrichment Analysis: An Alternative Method for Evaluating the Functional Properties of Gene Sets. Scientific Reports, 2014, 4, 4191.	3.3	56
42	Optimal Design, Robustness, and Risk Aversion. Physical Review Letters, 2002, 89, 028301.	7.8	55
43	Manipulating Quantum Dots to Nanometer Precision by Control of Flow. Nano Letters, 2010, 10, 2525-2530.	9.1	54
44	Flow Control of Small Objects on Chip: Manipulating Live Cells, Quantum Dots, and Nanowires. IEEE Control Systems, 2012, 32, 26-53.	0.8	53
45	Radiative Enhancement of Single Quantum Emitters in WSe₂ Monolayers Using Site-Controlled Metallic Nanopillars. ACS Photonics, 2018, 5, 3466-3471.	6.6	51
46	Humidity-Induced Photoluminescence Hysteresis in Variable Cs/Br Ratio Hybrid Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 3463-3469.	4.6	50
47	Nanoscale probing of image-dipole interactions in a metallic nanostructure. Nature Communications, 2015, 6, 6558.	12.8	49
48	Synthetic Gauge Field for Two-Dimensional Time-Multiplexed Quantum Random Walks. Physical Review Letters, 2019, 123, 150503.	7.8	43
49	Controlled coupling of photonic crystal cavities using photochromic tuning. Applied Physics Letters, 2013, 102, .	3.3	42
50	Resonant Interactions between a Mollow Triplet Sideband and a Strongly Coupled Cavity. Physical Review Letters, 2014, 113, 027403.	7.8	41
51	Two-Photon Interference from the Far-Field Emission of Chip-Integrated Cavity-Coupled Emitters. Nano Letters, 2016, 16, 7061-7066.	9.1	41
52	Strain tuning of a quantum dot strongly coupled to a photonic crystal cavity. Applied Physics Letters, 2013, 103, .	3.3	40
53	Positioning and Immobilization of Individual Quantum Dots with Nanoscale Precision. Nano Letters, 2010, 10, 4673-4679.	9.1	39
54	Magnetic field tuning of a quantum dot strongly coupled to a photonic crystal cavity. Applied Physics Letters, 2011, 98, .	3.3	37

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55	Dynamical transitions in large systems of mean field-coupled Landau-Stuart oscillators: Extensive chaos and cluster states. Chaos, 2015, 25, 123122.	2.5	36
56	Large optical Stark shifts in semiconductor quantum dots coupled to photonic crystal cavities. Applied Physics Letters, 2011, 98, .	3.3	35
57	Observation of strong coupling through transmission modification of a cavity-coupled photonic crystal waveguide. Optics Express, 2011, 19, 5398.	3.4	34
58	Generation and manipulation of nonclassical light using photonic crystals. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 32, 466-470.	2.7	33
59	Reversible tuning of photonic crystal cavities using photochromic thin films. Applied Physics Letters, 2010, 96, 153303.	3.3	31
60	Spontaneous emission enhancement and saturable absorption of colloidal quantum dots coupled to photonic crystal cavity. Optics Express, 2013, 21, 29612.	3.4	30
61	Transferrable single crystalline 4H-SiC nanomembranes. Journal of Materials Chemistry C, 2017, 5, 264-268.	5.5	30
62	Multiscale dynamics in communities of phase oscillators. Chaos, 2012, 22, 013102.	2.5	28
63	Local synchronization in complex networks of coupled oscillators. Chaos, 2011, 21, 025109.	2.5	27
64	All-Optical Switch Using Quantum-Dot Saturable Absorbers in a DBR Microcavity. IEEE Journal of Quantum Electronics, 2011, 47, 31-39.	1.9	26
65	A fiber-integrated nanobeam single photon source emitting at telecom wavelengths. Applied Physics Letters, 2019, 114, .	3.3	25
66	Modeling the network dynamics of pulse-coupled neurons. Chaos, 2017, 27, 033102.	2.5	24
67	The myopia of crowds: Cognitive load and collective evaluation of answers on Stack Exchange. PLoS ONE, 2017, 12, e0173610.	2.5	24
68	Echo phenomena in large systems of coupled oscillators. Chaos, 2008, 18, 037115.	2.5	22
69	Single-shot optical readout of a quantum bit using cavity quantum electrodynamics. Physical Review A, 2016, 94, .	2.5	22
70	A Spinâ€“Photon Interface Using Charge-Tunable Quantum Dots Strongly Coupled to a Cavity. Nano Letters, 2019, 19, 7072-7077.	9.1	22
71	All-optical tuning of a quantum dot in a coupled cavity system. Applied Physics Letters, 2012, 100, 231107.	3.3	20
72	Serialized quantum error correction protocol for high-bandwidth quantum repeaters. New Journal of Physics, 2016, 18, 093008.	2.9	20

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73	Competing opinions and stubborness: Connecting models to data. Physical Review E, 2016, 93, 032305.	2.1	20
74	A reversibly tunable photonic crystal nanocavity laser using photochromic thin film. Optics Express, 2011, 19, 5551.	3.4	19
75	Coupling quantum emitters in WSe2 monolayers to a metal-insulator-metal waveguide. Applied Physics Letters, 2018, 113, .	3.3	19
76	Chiral light-matter interactions using spin-valley states in transition metal dichalcogenides. Optics Express, 2019, 27, 21367.	3.4	19
77	Deterministic generation of entanglement between a quantum-dot spin and a photon. Physical Review A, 2014, 90, .	2.5	18
78	Nanostructure-Induced Distortion in Single-Emitter Microscopy. Nano Letters, 2016, 16, 5415-5419.	9.1	18
79	Weakly explosive percolation in directed networks. Physical Review E, 2013, 87, 052127.	2.1	17
80	Bright Telecom-Wavelength Single Photons Based on a Tapered Nanobeam. Nano Letters, 2021, 21, 323-329.	9.1	17
81	Development of metal etch mask by single layer lift-off for silicon nitride photonic crystals. Microelectronic Engineering, 2011, 88, 994-998.	2.4	16
82	Dynamical Instability in Boolean Networks as a Percolation Problem. Physical Review Letters, 2012, 109, 085701.	7.8	16
83	Modeling the Dynamics of Bivalent Histone Modifications. PLoS ONE, 2013, 8, e77944.	2.5	15
84	Stability of Boolean networks: The joint effects of topology and update rules. Physical Review E, 2014, 90, 022814.	2.1	14
85	Spontaneous emission enhancement of colloidal perovskite nanocrystals by a photonic crystal cavity. Applied Physics Letters, 2017, 111, .	3.3	14
86	Large stark tuning of InAs/InP quantum dots. Applied Physics Letters, 2019, 114, .	3.3	14
87	Guiding and confining of light in a two-dimensional synthetic space using electric fields. Optica, 2020, 7, 506.	9.3	14
88	Cavity-Enhanced Optical Readout of a Single Solid-State Spin. Physical Review Applied, 2018, 9, .	3.8	13
89	Deterministic generation of multidimensional photonic cluster states using time-delay feedback. Physical Review A, 2021, 104, .	2.5	13
90	C-band single photons from a trapped ion via two-stage frequency conversion. Applied Physics Letters, 2021, 119, .	3.3	13

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91	Multiplexed quantum repeaters based on dual-species trapped-ion systems. Physical Review A, 2022, 105, .	2.5	13
92	Blue blood or black blood: R1 effects in gradient-echo echo-planar functional neuroimaging. Magnetic Resonance Imaging, 1995, 13, 369-378.	1.8	12
93	Scanning Localized Magnetic Fields in a Microfluidic Device with a Single Nitrogen Vacancy Center. Nano Letters, 2015, 15, 1481-1486.	9.1	12
94	Finding New Order in Biological Functions from the Network Structure of Gene Annotations. PLoS Computational Biology, 2015, 11, e1004565.	3.2	11
95	Interpreting Patterns of Gene Expression: Signatures of Coregulation, the Data Processing Inequality, and Triplet Motifs. PLoS ONE, 2012, 7, e31969.	2.5	11
96	Fabrication of Nanoassemblies Using Flow Control. Nano Letters, 2013, 13, 3936-3941.	9.1	10
97	Wireless current sensing by near field induction from a spin transfer torque nano-oscillator. Applied Physics Letters, 2016, 108, .	3.3	10
98	A pathway-centric view of spatial proximity in the 3D nucleome across cell lines. Scientific Reports, 2016, 6, 39279.	3.3	10
99	Overcoming Auger recombination in nanocrystal quantum dot laser using spontaneous emission enhancement. Optics Express, 2014, 22, 3013.	3.4	9
100	Silicon photonic add-drop filter for quantum emitters. Optics Express, 2019, 27, 16882.	3.4	9
101	Spatially embedded growing small-world networks. Scientific Reports, 2015, 4, 7047.	3.3	8
102	Map model for synchronization of systems of many coupled oscillators. Chaos, 2010, 20, 023109.	2.5	7
103	Implications of functional similarity for gene regulatory interactions. Journal of the Royal Society Interface, 2012, 9, 1625-1636.	3.4	7
104	Active Control of Photon Recycling for Tunable Optoelectronic Materials. Advanced Optical Materials, 2018, 6, 1701323.	7.3	6
105	Consequences of Anomalous Diffusion in Disordered Systems under Cyclic Forcing. Physical Review Letters, 2014, 112, 228001.	7.8	5
106	Controlling the dark exciton spin eigenstates by external magnetic field. Physical Review B, 2016, 94, .	3.2	5
107	High rectification sensitivity of radiofrequency signal through adiabatic stochastic resonance in nanoscale magnetic tunnel junctions. Applied Physics Letters, 2019, 115, .	3.3	5
108	Quantum Fourier transform on photonic qubits using cavity QED. Physical Review A, 2022, 106, .	2.5	5

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109	A network function-based definition of communities in complex networks. Chaos, 2012, 22, 033129.	2.5	4
110	Impact of imperfect information on network attack. Physical Review E, 2015, 91, 032807.	2.1	4
111	Stability of Boolean networks with generalized canalizing rules. Physical Review E, 2012, 85, 046106.	2.1	3
112	Inhibitory neurons promote robust critical firing dynamics in networks of integrate-and-fire neurons. Physical Review E, 2016, 94, 062309.	2.1	3
113	Origin of spectral brightness variations in InAs/InP quantum dot telecom single photon emitters. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2019, 37, 011202.	1.2	3
114	Temporal shaping of single photons by engineering exciton dynamics in a single quantum dot. APL Photonics, 2021, 6, 080801.	5.7	3
115	Frequency conversion of microwave signal without direct bias current using nanoscale magnetic tunnel junctions. Scientific Reports, 2019, 9, 828.	3.3	3
116	Single-Shot Readout of a Solid-State Spin in a Decoherence-Free Subspace. Physical Review Applied, 2021, 15, .	3.8	2
117	Design of an Integrated Bell-State Analyzer on a Thin-Film Lithium Niobate Platform. IEEE Photonics Journal, 2022, 14, 1-9.	2.0	2
118	Control of the cavity reflectivity using a single quantum dot spin. Proceedings of SPIE, 2015, , .	0.8	1
119	Storing light in a tiny box. Science, 2017, 357, 1354-1355.	12.6	1
120	Semiconductor quantum networks using quantum dots. , 2017, , .		1
121	Activation of Microwave Signals in Nanoscale Magnetic Tunnel Junctions by Neuronal Action Potentials. IEEE Magnetics Letters, 2019, 10, 1-5.	1.1	1
122	Interfacing Single Quantum Dot Spins with Photons Using a Nanophotonic Cavity. Nano-optics and Nanophotonics, 2017, , 359-378.	0.2	1
123	Integration of Quantum Emitters with Lithium Niobate Photonics. , 2019, , .		1
124	Ultra Fast Nonlinear Optical Tuning of Photonic Crystal Cavities. , 2007, , .		0
125	Nanometer positioning of single quantum dots by flow control. , 2010, , .		0
126	Selective nano-assembly of single quantum dots on a two dimensional surface. , 2011, , .		0

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127	Selective coupling of quantum dot exciton spin states to a photonic crystal cavity using magnetic field tuning. , 2011, , .		0
128	Deterministic nano-manipulation and immobilization of single quantum dots. , 2011, , .		0
129	Overcoming Auger recombination in nanocrystal quantum dots using Purcell enhancement. , 2011, , .		0
130	Low photon nonlinear effects in integrated photonic crystal cavities coupled to quantum dots. , 2011, , .		0
131	Improved voltage response in IIIâ€“V solar cells based on engineered spontaneous emission. , 2015, , .		0
132	Observation of edge states at telecom wavelengths in a nanoscale topological photonic crystal. , 2017, , .		0
133	Scalable Quantum Photonics Using Quantum Dots. , 2018, , .		0
134	Hybrid Integration of Solid-State Quantum Emitters with a Silicon Chip. , 2018, , .		0
135	Nanophotonic Spin-photon Quantum Transistor. , 2017, , .		0
136	Two-Photon Interference from Multiple Solid-State Quantum Emitters. , 2017, , .		0
137	Chip-Integrated Multiple Identical Quantum Emitters. , 2017, , .		0
138	Quantum dots in photonic crystals for integrated quantum photonics. , 2017, , .		0
139	A Silicon Photonic On-Chip Filter for Quantum Emitters. , 2018, , .		0
140	Controlling light with quantum dot spin on-a-chip. , 2018, , .		0
141	MBE growth of telecommunication wavelength single photon emitters. , 2018, , .		0
142	A Charge-Tunable Quantum Dot Strongly Coupled to a Nanophotonic Cavity. , 2019, , .		0
143	Single-shot readout of a solid-state spin in a decoherence-free subspace. , 2020, , .		0
144	Chiral coupling of a quantu m emitter in a topological photonic resonator. , 2020, , .		0

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145	Arbitrary sequenced spin control of a Quantum Dot strongly coupled to a photonic crystal cavity. , 2020, , .		0