Zhiliang Yuan

List of Publications by Year
in descending order

156 papers	10,413 citations	41344 49 h-index	32842 100 g-index
160 all docs	160 docs citations	160 times ranked	4821 citing authors

#	Article	IF	Citations
1	Coherent phase transfer for real-world twin-field quantum key distribution. Nature Communications, 2022, 13, 157.	12.8	44
2	Self-tuning quantum key distribution transmitter based on a genetic algorithm. , 2022, , .		0
3	Gigahertz measurement-device-independent quantum key distribution using directly modulated lasers. Npj Quantum Information, 2021, 7, .	6.7	33
4	Out-of-Band Electromagnetic Injection Attack on a Quantum Random Number Generator. Physical Review Applied, 2021, 15, .	3.8	9
5	Real-time operation of a multi-rate, multi-protocol quantum key distribution transmitter. Optica, 2021, 8, 911.	9.3	16
6	600-km repeater-like quantum communications with dual-band stabilization. Nature Photonics, 2021, 15, 530-535.	31.4	133
7	Advanced Laser Technology for Quantum Communications (Tutorial Review). Advanced Quantum Technologies, 2021, 4, 2100062.	3.9	25
8	Complete System Integration of Chip-Based Quantum Key Distribution Devices. , 2021, , .		0
9	A photonic integrated quantum secure communication system. Nature Photonics, 2021, 15, 850-856.	31.4	90
10	Quantum Key Secured Communications Field Trial for Industry 4.0. , 2021, , .		0
11	Simplifying Measurement-Device-Independent Quantum Key Distribution with Directly Modulated Laser Sources. , 2021, , .		1
12	Quantum cryptography with a full-fledged photonic integrated chip system. , 2021, , .		0
13	Backflashes from fast-gated avalanche photodiodes in quantum key distribution. Applied Physics Letters, 2020, 116, .	3.3	1
14	A modulator-free quantum key distribution transmitter chip. Npj Quantum Information, 2019, 5, .	6.7	46
15	Intrinsic Mitigation of the After-Gate Attack in Quantum Key Distribution through Fast-Gated Delayed Detection. Physical Review Applied, 2019, 12, .	3.8	2
16	Simple source device-independent continuous-variable quantum random number generator. Physical Review A, 2019, 99, .	2.5	20
17	Experimental quantum key distribution beyond the repeaterless secret key capacity. Nature Photonics, 2019, 13, 334-338.	31.4	212
18	Cambridge quantum network. Npj Quantum Information, 2019, 5, .	6.7	134

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19	Real-time interferometric quantum random number generation on chip. Journal of the Optical Society of America B: Optical Physics, 2019, 36, B137.	2.1	23
20	Quantum key distribution and beyond: introduction. Journal of the Optical Society of America B: Optical Physics, 2019, 36, QKD1.	2.1	9
21	High Bit-Rate Quantum Communication Chips. , 2019, , .		0
22	Interferometric quantum random number generation on chip. , 2019, , .		0
23	On-chip modulator-free optical transmitter for quantum and classical communications. , 2019, , .		0
24	Overcoming the rateâ€“distance limit of quantum key distribution without quantum repeaters. Nature, 2018, 557, 400-403.	27.8	683
25	Quantum key distribution using in-line highly birefringent interferometers. Applied Physics Letters, 2018, 113, 031107.	3.3	3
26	Long-Term Test of a Fast and Compact Quantum Random Number Generator. Journal of Lightwave Technology, 2018, 36, 3778-3784.	4.6	33
27	Intensity modulation as a preemptive measure against blinding of single-photon detectors based on self-differencing cancellation. Physical Review A, 2018, 98, .	2.5	10
28	A direct GHz-clocked phase and intensity modulated transmitter applied to quantum key distribution. Quantum Science and Technology, 2018, 3, 045010.	5.8	10
29	10-Mb/s Quantum Key Distribution. Journal of Lightwave Technology, 2018, 36, 3427-3433.	4.6	155
30	Testing the photon-number statistics of a quantum key distribution light source. Optics Express, 2018, 26, 22733.	3.4	7
31	Patterning-effect mitigating intensity modulator for secure decoy-state quantum key distribution. Optics Letters, 2018, 43, 5110.	3.3	51
32	Birefringent Interferometry for Quantum Key Distribution. , 2018, , .		0
33	Quantum key distribution security threat: the backflash light case. , 2018, , .		0
34	Modulatorâ€Free Coherentâ€Oneâ€Way Quantum Key Distribution. Laser and Photonics Reviews, 2017, 11, 1700067.	8.7	13
35	Experimental measurement-device-independent quantum digital signatures. Nature Communications, 2017, 8, 1098.	12.8	76
36	Novel technologies for quantum key distribution networks. , 2017, , .		0

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37	Quantifying backflash radiation to prevent zero-error attacks in quantum key distribution. Light: Science and Applications, 2017, 6, e16261-e16261.	16.6	40
38	Quantum key distribution with hacking countermeasures and long term field trial. Scientific Reports, 2017, 7, 1978.	3.3	23
39	Manipulating photon coherence to enhance the security of distributed phase reference quantum key distribution. Applied Physics Letters, 2017, 111, .	3.3	6
40	Long-distance quantum key distribution secure against coherent attacks. Optica, 2017, 4, 163.	9.3	132
41	Setting best practice criteria for self-differencing avalanche photodiodes in quantum key distribution. , 2017, , .		1
42	Directly intensity-modulated quantum key distribution. , 2017, , .		0
43	Near perfect mode overlap between independently seeded, gain-switched lasers. Optics Express, 2016, 24, 17849.	3.4	15
44	An entangled-LED-driven quantum relay over 1â€‰km. Npj Quantum Information, 2016, 2, .	6.7	33
45	Quantum key distribution without detector vulnerabilities using optically seeded lasers. Nature Photonics, 2016, 10, 312-315.	31.4	195
46	Quantum key distribution over multicore fiber. Optics Express, 2016, 24, 8081.	3.4	76
47	Decoy-state quantum key distribution with a leaky source. New Journal of Physics, 2016, 18, 065008.	2.9	69
48	Practical challenges in quantum key distribution. Npj Quantum Information, 2016, 2, .	6.7	489
49	Ultra-high bandwidth quantum secured data transmission. Scientific Reports, 2016, 6, 35149.	3.3	95
50	Quantum secured gigabit optical access networks. Scientific Reports, 2016, 5, 18121.	3.3	52
51	Quantum key distribution with an entangled light emitting diode. Applied Physics Letters, 2015, 107, .	3.3	12
52	Quantum Secured Gigabit Passive Optical Networks. , 2015, , .		4
53	Practical Security Bounds Against the Trojan-Horse Attack in Quantum Key Distribution. Physical Review X, 2015, 5, .	8.9	75
54	Introduction to the Issue on Quantum Communication and Cryptography. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 3-4.	2.9	11

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55	Security Bounds for Efficient Decoy-State Quantum Key Distribution. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 197-204.	2.9	20
56	High speed prototype quantum key distribution system and long term field trial. Optics Express, 2015, 23, 7583.	3.4	61
57	Gigahertz-gated InGaAs/InP single-photon detector with detection efficiency exceeding 55% at 1550â€‰nm. Journal of Applied Physics, 2015, 117, .	2.5	83
58	Efficient and robust quantum random number generation by photon number detection. Applied Physics Letters, 2015, 107, .	3.3	40
59	Round-robin with photons. Nature Photonics, 2015, 9, 781-782.	31.4	3
60	Room temperature single-photon detectors for high bit rate quantum key distribution. Applied Physics Letters, 2014, 104, .	3.3	79
61	Interference of Short Optical Pulses from Independent Gain-Switched Laser Diodes for Quantum Secure Communications. Physical Review Applied, 2014, 2, .	3.8	33
62	Worldwide standardization activity for quantum key distribution. , 2014, , .		9
63	Field trial of a quantum secured 10â€ŠGb/s DWDM transmission system over a single installed fiber. Optics Express, 2014, 22, 23121.	3.4	72
64	First quantum secured 10-Gb/s DWDM transmission over the same installed fibre. , 2014, , .		3
65	Robust random number generation using steady-state emission of gain-switched laser diodes. Applied Physics Letters, 2014, 104, .	3.3	90
66	Quantum key distribution for 10 Gb/s dense wavelength division multiplexing networks. Applied Physics Letters, 2014, 104, .	3.3	154
67	A quantum access network. Nature, 2013, 501, 69-72.	27.8	220
68	Efficient decoy-state quantum key distribution with quantified security. Optics Express, 2013, 21, 24550.	3.4	153
69	Security of two-way quantum key distribution. Physical Review A, 2013, 88, .	2.5	58
70	A Multi-User Quantum Access Network. , 2013, , .		0
71	High bit rate quantum key distribution with 100 dB security. , 2013, , .		0
72	Gigacount/second photon detection with InGaAs avalanche photodiodes. Electronics Letters, 2012, 48, 111.	1.0	32

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73	Stability of high bit rate quantum key distribution on installed fiber. Optics Express, 2012, 20, 16339.	3.4	79
74	Coexistence of High-Bit-Rate Quantum Key Distribution and Data on Optical Fiber. Physical Review X, 2012, 2, .	8.9	115
75	Practical photon number detection with electric field-modulated silicon avalanche photodiodes. Nature Communications, 2012, 3, 644.	12.8	23
76	Practical treatment of quantum bugs. , 2012, , .		3
77	Multiplexed Classical and Quantum Transmission for High Bitrate Quantum Key Distribution Systems. , 2012, , .		0
78	Field test of quantum key distribution in the Tokyo QKD Network. Optics Express, 2011, 19, 10387.	3.4	816
79	Probing higher order correlations of the photon field with photon number resolving avalanche photodiodes. Optics Express, 2011, 19, 13268.	3.4	18
80	Resilience of gated avalanche photodiodes against bright illumination attacks in quantum cryptography. Applied Physics Letters, 2011, 98, .	3.3	75
81	Tokyo QKD Network and the evolution to Secure Photonic Network. , 2011, , .		8
82	Efficient photon number detection with silicon avalanche photodiodes. Proceedings of SPIE, 2011, , .	0.8	1
83	Single photon detection for high bit rate quantum communication. , 2011, , .		0
84	Response to â€œComment on â€˜Resilience of gated avalanche photodiodes against bright illumination attacks in quantum cryptographyâ€™â€•[Appl. Phys. Lett. 99, 196101 (2011)]. Applied Physics Letters, 2011, 99, 196102.	3.3	12
85	Gigacounts/s photon detection and its applications. , 2011, , .		0
86	Efficient photon number detection with silicon avalanche photodiodes. , 2011, , .		0
87	Biexciton cascade in telecommunication wavelength quantum dots. Journal of Physics: Conference Series, 2010, 210, 012036.	0.4	3
88	Avoiding the blinding attack in QKD. Nature Photonics, 2010, 4, 800-801.	31.4	106
89	Multi-Gigahertz Photon Counting Using InGaAs APDs. , 2010, , .		0
90	Actively Stabilised Quantum Key Distribution Operating Continuously at 1 Mbit/s. , 2010, , .		0

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91	Compensating the Noise of a Communication Channel via Asymmetric Encoding of Quantum Information. Physical Review Letters, 2010, 105, 140504.	7.8	4
92	Evolution of locally excited avalanches in semiconductors. Applied Physics Letters, 2010, 96, .	3.3	13
93	Multi-gigahertz operation of photon counting InGaAs avalanche photodiodes. Applied Physics Letters, 2010, 96, .	3.3	72
94	Efficient photon number detection with silicon avalanche photodiodes. Applied Physics Letters, 2010, 97, .	3.3	40
95	Continuous operation of high bit rate quantum key distribution. Applied Physics Letters, 2010, 96, .	3.3	146
96	Megabit per Second Quantum Key Distribution Using Practical InGaAs APDs. , 2009, , .		0
97	Robust unconditionally secure quantum key distribution with two nonorthogonal and uninformative states. Physical Review A, 2009, 80, .	2.5	22
98	InGaAs Avalanche Photodiodes for Gigahertz Quantum Key Distribution. , 2009, , .		0
99	Practical gigahertz quantum key distribution based on avalanche photodiodes. New Journal of Physics, 2009, 11, 045019.	2.9	41
100	Efficient entanglement distribution over 200 kilometers. Optics Express, 2009, 17, 11440.	3.4	125
101	The SECOQC quantum key distribution network in Vienna. New Journal of Physics, 2009, 11, 075001.	2.9	619
102	Ultrashort dead time of photon-counting InGaAs avalanche photodiodes. Applied Physics Letters, 2009, 94, .	3.3	56
103	Quantum communication using single photons from a semiconductor quantum dot emitting at a telecommunication wavelength. Journal of Optics, 2009, 11, 054005.	1.5	17
104	Gigahertz Quantum Key Distribution With 1 Mbit/s Secure Key Rate Using Decoy Pulses. , 2009, , .		1
105	Efficient entanglement distribution over 200 kilometers fiber using self-differencing InGaAs avalanche photodiodes. , 2009, , .		1
106	The physical generation of true random numbers. SPIE Newsroom, 2009, , .	0.1	0
107	Ultra-Long Distance and Efficient Entanglement Distribution over 200 Kilometers. , 2009, , .		0
108	An avalancheâ€photodiode-based photon-number-resolving detector. Nature Photonics, 2008, 2, 425-428.	31.4	213

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109	Two-way quantum key distribution at telecommunication wavelength. Physical Review A, 2008, 77, .	2.5	24
110	Gigahertz decoy quantum key distribution with 1 Mbit/s secure key rate. Optics Express, 2008, 16, 18790.	3.4	214
111	Decoy pulse quantum key distribution for practical purposes. IET Optoelectronics, 2008, 2, 195.	3.3	3
112	A high speed, postprocessing free, quantum random number generator. Applied Physics Letters, 2008, 93, .	3.3	180
113	Experimental position-time entanglement with degenerate single photons. Physical Review A, 2008, 77, .	2.5	7
114	Gigahertz quantum key distribution with InGaAs avalanche photodiodes. Applied Physics Letters, 2008, 92, .	3.3	90
115	Quantum key distribution using a semiconductor quantum dot source emitting at a telecommunication wavelength. Proceedings of SPIE, 2008, , .	0.8	0
116	Fiber Optic Quantum Key Distribution with Single Photons from Quantum Dots. , 2008, , .		0
117	Electrically driven telecommunication wavelength single-photon source. Applied Physics Letters, 2007, 90, 063512.	3.3	64
118	Unconditionally secure one-way quantum key distribution using decoy pulses. Applied Physics Letters, 2007, 90, 011118.	3.3	106
119	Unconditionally secure one-way quantum key distribution using decoy pulses. , 2007, , .		0
120	Quantum key distribution using a triggered quantum dot source emitting near 1.3Î¼m. Applied Physics Letters, 2007, 91, .	3.3	68
121	Key to the quantum industry. Physics World, 2007, 20, 24-29.	0.0	20
122	Practical quantum key distribution over 60 hours at an optical fiber distance of 20km using weak and vacuum decoy pulses for enhanced security. Optics Express, 2007, 15, 8465.	3.4	29
123	High speed single photon detection in the near infrared. Applied Physics Letters, 2007, 91, .	3.3	259
124	Single-photon-emitting diodes: a review. Physica Status Solidi (B): Basic Research, 2006, 243, 3730-3740.	1.5	25
125	Experimental Test of Two-Way Quantum Key Distribution in the Presence of Controlled Noise. Physical Review Letters, 2006, 96, 200501.	7.8	49
126	An electrically driven microcavity single photon source. , 2006, , .		0

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127	Optoelectronic devices for single photon generation (Invited Paper). , 2005, , .		0
128	On-demand single-photon source for 1.3Î¼m telecom fiber. Applied Physics Letters, 2005, 86, 201111.	3.3	116
129	Comment on â€œSecure Communication using Mesoscopic Coherent Statesâ€• Physical Review Letters, 2005, 94, 048901; author reply 048902.	7.8	18
130	Automated one-way quantum key distribution system based on fibre optics. , 2005, , .		0
131	Continuous operation of a one-way quantum key distribution system over installed telecom fibre. Optics Express, 2005, 13, 660.	3.4	78
132	Unconditionally secure quantum key distribution over 50â€…km of standard telecom fibre. Electronics Letters, 2004, 40, 1603.	1.0	38
133	Single quantum dot electroluminescence near. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 21, 390-394.	2.7	12
134	Quantum key distribution over 122 km of standard telecom fiber. Applied Physics Letters, 2004, 84, 3762-3764.	3.3	528
135	Self-assembled quantum dots as a source of single photons and photon pairs. Physica Status Solidi (B): Basic Research, 2003, 238, 353-359.	1.5	5
136	Quantum key distribution over distances as long as 101 km. , 2003, , .		0
137	Single photon emitting diode. , 2002, , .		0
138	Electrically Driven Single-Photon Source. Science, 2002, 295, 102-105.	12.6	1,069
139	Recombination of Many-Particle States in InAs Self-Organized Quantum Dots. Physica Status Solidi (B): Basic Research, 2001, 224, 409-412.	1.5	4
140	Dynamical Band Gap Renormalization in Self-Organized InAs/GaAs Quantum Dots. Physica Status Solidi A, 2000, 178, 345-348.	1.7	6
141	Intrawell and interwell transfer of excitons in growth-interrupted quantum wells. Superlattices and Microstructures, 1998, 24, 163-167.	3.1	3
142	Thermal activation and thermal transfer of localized excitons in InAs self-organized quantum dots. Superlattices and Microstructures, 1998, 23, 381-387.	3.1	55
143	Comment on â€œHigh-efficiency energy up-conversion at GaAs-GaInP2 interfacesâ€•[Appl. Phys. Lett.67, 2813 (1995)]. Applied Physics Letters, 1997, 70, 1628-1629.	3.3	1
144	Optical characterization of InAs monolayer quantum structures grown on (311)A, (311)B, and (100) GaAs substrates. IEEE Journal of Selected Topics in Quantum Electronics, 1997, 3, 471-474.	2.9	5

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145	Carrier relaxation and thermal activation of localized excitons in self-organized InAs multilayers grown on GaAs substrates. Physical Review B, 1996, 54, 11528-11531.	3.2	208
146	Effective-mass theory for InAs/GaAs strained coupled quantum dots. Physical Review B, 1996, 54, 11575-11581.	3.2	145
147	Photoluminescence studies on the interaction of near-surface GaAs/AlxGa1â^'xAs quantum wells with chemical adsorbates. Journal of Photochemistry and Photobiology A: Chemistry, 1996, 101, 113-117.	3.9	2
148	Two-dimensional excitonic emission in InAs submonolayers. Physical Review B, 1996, 54, 16919-16924.	3.2	24
149	Optical study of heterointerface configuration in narrow GaAs/AlGaAs single quantum wells prepared with growth interruption. Journal of Applied Physics, 1996, 79, 1073.	2.5	8
150	Energy relaxation processes of hot quasiâ€twoâ€dimensional excitons in very thin GaAs/AlGaAs quantum wells by excitonâ€“acousticâ€phonon interaction. Journal of Applied Physics, 1996, 79, 424-426.	2.5	13
151	Photoluminescence studies of chemical adsorption of GaAs/AlxGa1 â€“xAs multiquantum well semiconductor. Journal of the Chemical Society Chemical Communications, 1995, , 1439-1440.	2.0	4
152	Photoluminescence studies of single submonolayer InAs structures grown on GaAs (001) matrix. Applied Physics Letters, 1995, 67, 1874-1876.	3.3	12
153	Exciton localization in corrugated GaAs/AlAs superlattices grown on (311) GaAs substrates. Physical Review B, 1995, 51, 7024-7028.	3.2	11
154	One-way quantum key distribution system with active phase compensation. , 0, , .		0
155	1.3 μm on-demand single photon source for fibre systems. , 0, , .		0
156	Practical one-way quantum cryptographic system for telecom networks. , 0, , .		0