Xiangdong Zhang

List of Publications by Year in Descending Order

90 papers	1,221 citations	21 h-index	30 g-index
109 ext. papers	1,833 ext. citations	5.9 avg, IF	5.24 L-index

#	Paper	IF	Citations
90	Deep-learning-based quantum imaging using NOON states. *Journal of Physics Communications*, **2022**, 6, 035005	1.2	1
89	Fast quantum search of multiple vertices based on electric circuits. *Quantum Information Processing* , **2022**, 21, 1	1.6	1
88	Observation of Bloch oscillations dominated by effective anyonic particle statistics.. *Nature Communications*, **2022**, 13, 2392	17.4	1
87	High capacity topological coding based on nested vortex knots and links.. *Nature Communications*, **2022**, 13, 2705	17.4	2
86	Universally Optimal Verification of Entangled States with Nondemolition Measurements. *Physical Review Letters*, **2021**, 126, 090504	7.4	5
85	Optically Unstable Phase from Ion-Ion Interactions in an Erbium-Doped Crystal. *Physical Review Letters*, **2021**, 126, 110601	7.4	1
84	Nonlinear Amplification of Chirality in Self-Assembled Plasmonic Nanostructures. *ACS Nano*, **2021**, 15, 5715-5724	16.7	4
83	Experimental Observation of Higher-Order Topological Anderson Insulators. *Physical Review Letters* , **2021**, 126, 146802	7.4	21
82	Topological mode switching in modulated structures with dynamic encircling of an exceptional point. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2021**, 477, 20200766	2.4	2
81	Electromechanically reconfigurable optical nano-kirigami. *Nature Communications*, **2021**, 12, 1299	17.4	19
80	Electric-Circuit Realization of Fast Quantum Search. *Research*, **2021**, 2021, 9793071	7.8	4
79	Representation of total angular momentum states of beams through a four-parameter notation. *New Journal of Physics*, **2021**, 23, 083015	2.9	3
78	Optimization and robustness of the topological corner state in second-order topological photonic crystals. *Optics Express*, **2021**, 29, 30735-30750	3.3	3
77	Topologically protected vector edge states and polarization beam splitter by all-dielectric valley photonic crystal slabs. *New Journal of Physics*, **2021**, 23, 093026	2.9	1
76	Creation of electrical knots and observation of DNA topology. *New Journal of Physics*, **2021**, 23, 093045	2.9	2
75	Entanglement-Assisted Quantum Chiral Spectroscopy. *Journal of Physical Chemistry Letters*, **2021**, 12, 8591-8597	6.4	0
74	Observation of hybrid higher-order skin-topological effect in non-Hermitian topolectrical circuits. *Nature Communications*, **2021**, 12, 7201	17.4	9

73	Topologically Protected Strong Coupling and Entanglement Between Distant Quantum Emitters. *Physical Review Applied*, **2020**, 14,	4.3	2
72	Cavity Quantum Electrodynamics with Second-Order Topological Corner State. *Laser and Photonics Reviews*, **2020**, 14, 1900425	8.3	31
71	Observation of Novel Robust Edge States in Dissipative Non-Hermitian Quantum Walks. *Laser and Photonics Reviews*, **2020**, 14, 2000092	8.3	5
70	Low-threshold topological nanolasers based on the second-order corner state. *Light: Science and Applications*, **2020**, 9, 109	16.7	69
69	Nanophotonic Polarization Routers Based on an Intelligent Algorithm. *Advanced Optical Materials*, **2020**, 8, 1902018	8.1	11
68	Vector Exceptional Points with Strong Superchiral Fields. *Physical Review Letters*, **2020**, 124, 083901	7.4	15
67	Entanglement-based quantum deep learning. *New Journal of Physics*, **2020**, 22, 033041	2.9	8
66	Locally distinguishing unextendible product bases by using entanglement efficiently. *Physical Review A*, **2020**, 101,	2.6	7
65	Fano-Enhanced Circular Dichroism in Deformable Stereo Metasurfaces. *Advanced Materials*, **2020**, 32, e1907077	24	47
64	Kirigami/origami: unfolding the new regime of advanced 3D microfabrication/nanofabrication with "folding". *Light: Science and Applications*, **2020**, 9, 75	16.7	58
63	Simulate Deutsch-Jozsa algorithm with metamaterials. *Optics Express*, **2020**, 28, 16230-16243	3.3	4
62	Topologically protected long-range coherent energy transfer. *Photonics Research*, **2020**, 8, B39	6	4
61	Strongly Enhanced Raman Optical Activity of Chiral Molecules by Vector Exceptional Points. *Journal of Physical Chemistry C*, **2020**, 124, 24970-24977	3.8	1
60	Strong superchiral fields and an ultrasensitive chiral sensor of biomolecules based on a dielectric photonic crystal slab with air holes. *Physical Review A*, **2020**, 102,	2.6	3
59	Creation of acoustic vortex knots. *Nature Communications*, **2020**, 11, 3956	17.4	9
58	Topolectrical-circuit realization of a four-dimensional hexadecapole insulator. *Physical Review B*, **2020**, 102,	3.3	14
57	Efficient verification of quantum processes. *Physical Review A*, **2020**, 101,	2.6	13
56	Topological states in amorphous magnetic photonic lattices. *Physical Review B*, **2019**, 99,	3.3	19

55	Backscattering-Immune Computing of Spatial Differentiation by Nonreciprocal Plasmonics. *Physical Review Applied*, **2019**, 11,	4.3	16
54	Photocontrollable Chiral Switching and Selection in Self-Assembled Plasmonic Nanostructure. *Advanced Functional Materials*, **2019**, 29, 1900587	15.6	15
53	Tailoring exceptional points with one-dimensional graphene-embedded photonic crystals. *Scientific Reports*, **2019**, 9, 5551	4.9	7
52	Experimental observation of classical analogy of topological entanglement entropy. *Nature Communications*, **2019**, 10, 1557	17.4	3
51	Long-lived quantum speedup based on plasmonic hot spot systems. *New Journal of Physics*, **2019**, 21, 053034	2.9	5
50	Tunable topological valley transport in two-dimensional photonic crystals. *New Journal of Physics*, **2019**, 21, 093020	2.9	10
49	Efficient Verification of Dicke States. *Physical Review Applied*, **2019**, 12,	4.3	19
48	Coherence Depletion in Quantum Algorithms. *Entropy*, **2019**, 21,	2.8	1
47	Ultrasmall Optical Vortex Knots Generated by Spin-Selective Metasurface Holograms. *Advanced Optical Materials*, **2019**, 7, 1900263	8.1	17
46	State-independent contextuality in classical light. *Scientific Reports*, **2019**, 9, 17038	4.9	1
45	Enhanced optical squeezing from quasi-bound states in the continuum and Fano resonances without nonlinearity. *New Journal of Physics*, **2019**, 21, 123050	2.9	3
44	Topoelectrical circuit octupole insulator with topologically protected corner states. *Physical Review B*, **2019**, 100,	3.3	48
43	Implementation of quantum permutation algorithm with classical light. *Journal of Physics Communications*, **2019**, 3, 015008	1.2	1
42	Experimental observation of the Leggett-Garg inequality violation in classical light. *Journal of Optics (United Kingdom)*, **2019**, 21, 015605	1.7	4
41	Experimental High-Dimensional Einstein-Podolsky-Rosen Steering. *Physical Review Letters*, **2018**, 120, 030401	7.4	18
40	Reconfigurable topological phases in photoexcited graphene nanoribbon arrays. *Journal of Optics (United Kingdom)*, **2018**, 20, 095005	1.7	0
39	Implementing Quantum Search Algorithm with Metamaterials. *Advanced Materials*, **2018**, 30, 1703986	24	30
38	Discovering the forbidden Raman modes at the edges of layered materials. *Science Advances*, **2018**, 4, eaau6252	14.3	26

37	Experimental Observation of Topologically Protected Bound States with Vanishing Chern Numbers in a Two-Dimensional Quantum Walk. *Physical Review Letters*, **2018**, 121, 100501	7.4	28
36	Engineering topological edge states in two dimensional magnetic photonic crystal. *Applied Physics Letters*, **2017**, 110, 021109	3.4	14
35	Amplification of the molecular chiroptical effect by low-loss dielectric nanoantennas. *Nanoscale*, **2017**, 9, 5701-5707	7.7	23
34	Ultrafast coherent energy transfer with high efficiency based on plasmonic nanostructures. *Journal of Chemical Physics*, **2017**, 146, 144101	3.9	5
33	Recognition of chiral zwitterionic interactions at nanoscale interfaces by chiroplasmonic nanosensors. *Physical Chemistry Chemical Physics*, **2017**, 19, 21401-21406	3.6	7
32	Experimental contextuality in classical light. *Scientific Reports*, **2017**, 7, 44467	4.9	7
31	A giant chiroptical effect caused by the electric quadrupole. *Nanoscale*, **2017**, 9, 5110-5118	7.7	14
30	Surface-Enhanced Circular Dichroism of Oriented Chiral Molecules by Plasmonic Nanostructures. *Journal of Physical Chemistry C*, **2017**, 121, 666-675	3.8	25
29	Tailoring Eigenmodes at Spectral Singularities in Graphene-based PT Systems. *Scientific Reports*, **2017**, 7, 11407	4.9	15
28	Quantum sensing of noises in one and two dimensional quantum walks. *Scientific Reports*, **2017**, 7, 4962	4.9	7
27	Multimode quantum states with single photons carrying orbital angular momentum. *Scientific Reports*, **2017**, 7, 3601	4.9	3
26	Improved third-order nonlinear effect in graphene based on bound states in the continuum. *Photonics Research*, **2017**, 5, 629	6	25
25	Three-dimensional vector wave bound states in a continuum. *Journal of the Optical Society of America B: Optical Physics*, **2017**, 34, 559	1.7	10
24	Simultaneously giant enhancement of Förster resonance energy transfer rate and efficiency based on plasmonic excitations. *Physical Review B*, **2016**, 94,	3.3	24
23	Strongly Enhanced Raman Optical Activity in Molecules by Magnetic Response of Nanoparticles. *Journal of Physical Chemistry C*, **2016**, 120, 14795-14804	3.8	24
22	Unusual quantum Talbot effect based on the orbital angular momentum of photons. *Physical Review A*, **2016**, 93,	2.6	3
21	The defect-induced localization in many positions of the quantum random walk. *Scientific Reports*, **2016**, 6, 25767	4.9	10
20	Probing thermal expansion coefficients of monolayers using surface enhanced Raman scattering. *RSC Advances*, **2016**, 6, 99053-99059	3.7	18

19	Tunable multi-qubit quantum phase gates with high fidelity based on graphene wrapped particle. *AIP Advances*, **2016**, 6, 115007	1.5	1
18	Solving constant-coefficient differential equations with dielectric metamaterials. *Journal of Optics (United Kingdom)*, **2016**, 18, 075102	1.7	24
17	Realization of optimized quantum controlled-logic gate based on the orbital angular momentum of light. *Optics Express*, **2016**, 24, 8186-93	3.3	9
16	Extraordinary behaviors in a two-dimensional decoherent alternative quantum walk. *Physical Review A*, **2016**, 94,	2.6	10
15	Ultrasensitive optical absorption in graphene based on bound states in the continuum. *Scientific Reports*, **2015**, 5, 8266	4.9	53
14	Protected quantum-state transfer in decoherence-free subspaces. *Physical Review A*, **2015**, 91,	2.6	27
13	Non-local classical optical correlation and implementing analogy of quantum teleportation. *Scientific Reports*, **2015**, 5, 9175	4.9	24
12	Multifrequency multi-qubit entanglement based on plasmonic hot spots. *Scientific Reports*, **2015**, 5, 13944	4.9	14
11	Plasmon-induced strong interaction between chiral molecules and orbital angular momentum of light. *Scientific Reports*, **2015**, 5, 18003	4.9	29
10	Bell's measure and implementing quantum Fourier transform with orbital angular momentum of classical light. *Scientific Reports*, **2015**, 5, 14113	4.9	19
9	Plasmonic polymers with strong chiroptical response for sensing molecular chirality. *Nanoscale*, **2015**, 7, 10690-8	7.7	14
8	Classical hypercorrelation and wave-optics analogy of quantum superdense coding. *Scientific Reports*, **2015**, 5, 18574	4.9	7
7	Experimental Observation of Giant Chiroptical Amplification of Small Chiral Molecules by Gold Nanosphere Clusters. *Journal of Physical Chemistry C*, **2014**, 118, 9690-9695	3.8	60
6	Cloaking and illusion of quantum imaging with entangled photon pairs. *Journal of Modern Optics*, **2014**, 61, 1665-1669	1.1	
5	Competition of Chiroptical Effect Caused by Nanostructure and Chiral Molecules. *Journal of Physical Chemistry C*, **2014**, 118, 20529-20537	3.8	29
4	Spin-based second-harmonic generation by metal nanoparticles. *Physical Review A*, **2013**, 88,	2.6	4
3	Electric-Circuit Simulation of Quantum Fast Hitting with Exponential Speedup. *Advanced Quantum Technologies*,2100143	4.3	3
2	Superchiral fields generated by nanostructures and their applications for chiral sensing. *Chinese Physics B*,	1.2	2

1	Nearly Perfect Transmission and Transformation of Entangled States in Topologically Protected Channels. *Laser and Photonics Reviews*,2100519	8.3	0