

# Hailang Dai

## List of Publications by Year in descending order

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91  
papers

2,104  
citations

236925

25  
h-index

265206

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91  
all docs

91  
docs citations

91  
times ranked

2047  
citing authors

#	ARTICLE	IF	CITATIONS
1	Localization and delocalization of light in photonic moiré lattices. <i>Nature</i> , 2020, 577, 42-46.	27.8	253
2	Superhigh-Resolution Recognition of Optical Vortex Modes Assisted by a Deep-Learning Method. <i>Physical Review Letters</i> , 2019, 123, 183902.	7.8	132
3	A 15-user quantum secure direct communication network. <i>Light: Science and Applications</i> , 2021, 10, 183.	16.6	114
4	Synthetic Anti-PT Symmetry in a Single Microcavity. <i>Physical Review Letters</i> , 2020, 124, 053901.	7.8	98
5	On-chip erbium-doped lithium niobate microcavity laser. <i>Science China: Physics, Mechanics and Astronomy</i> , 2021, 64, 1.	5.1	86
6	Cancer-Targeting Graphene Quantum Dots: Fluorescence Quantum Yields, Stability, and Cell Selectivity. <i>Advanced Functional Materials</i> , 2019, 29, 1805860.	14.9	65
7	Optically induced transparency in a micro-cavity. <i>Light: Science and Applications</i> , 2016, 5, e16072-e16072.	16.6	58
8	Lieb polariton topological insulators. <i>Physical Review B</i> , 2018, 97, .	3.2	56
9	Photonic Gauge Potential in One Cavity with Synthetic Frequency and Orbital Angular Momentum Dimensions. <i>Physical Review Letters</i> , 2019, 122, 083903.	7.8	54
10	Direct Visualizing the Spin Hall Effect of Light via Ultrahigh-Order Modes. <i>Physical Review Letters</i> , 2020, 124, 053902.	7.8	54
11	Carrier dynamic process in all-inorganic halide perovskites explored by photoluminescence spectra. <i>Photonics Research</i> , 2021, 9, 151.	7.0	52
12	Localization-delocalization wavepacket transition in Pythagorean aperiodic potentials. <i>Scientific Reports</i> , 2016, 6, 32546.	3.3	51
13	Regulation of the luminescence mechanism of two-dimensional tin halide perovskites. <i>Nature Communications</i> , 2022, 13, 60.	12.8	48
14	Optically and electrically tunable Dirac points and Zitterbewegung in graphene-based photonic superlattices. <i>Physical Review B</i> , 2015, 91, .	3.2	41
15	Experimental demonstration of non-bilocality with truly independent sources and strict locality constraints. <i>Nature Photonics</i> , 2019, 13, 687-691.	31.4	40
16	Nonlinear frequency conversion in one dimensional lithium niobate photonic crystal nanocavities. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	39
17	An improved three-dimensional two-temperature model for multi-pulse femtosecond laser ablation of aluminum. <i>Journal of Applied Physics</i> , 2015, 117, .	2.5	38
18	Coupling of Edge States and Topological Bragg Solitons. <i>Physical Review Letters</i> , 2019, 123, 254103.	7.8	37

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19	High- $Q$ Exterior Whispering-Gallery Modes in a Double-Layer Crystalline Microdisk Resonator. Physical Review Letters, 2019, 122, 253902.	7.8	36
20	Development of low-coherence high-power laser drivers for inertial confinement fusion. Matter and Radiation at Extremes, 2020, 5, .	3.9	35
21	Niobium pentoxide nanotube powder for efficient dye-sensitized solar cells. New Journal of Chemistry, 2016, 40, 6276-6280.	2.8	34
22	Anatase TiO <sub>2</sub> nanotube powder film with high crystallinity for enhanced photocatalytic performance. Nanoscale Research Letters, 2015, 10, 110.	5.7	32
23	Whole blood and semen identification using mid-infrared and Raman spectrum analysis for forensic applications. Analytical Methods, 2016, 8, 3763-3767.	2.7	32
24	Dynamic band structure measurement in the synthetic space. Science Advances, 2021, 7, .	10.3	31
25	Anderson localization at the subwavelength scale for surface plasmon polaritons in disordered arrays of metallic nanowires. Physical Review B, 2014, 89, .	3.2	25
26	Nonlinear wave mixing in lithium niobate thin film. Advances in Physics: X, 2021, 6, .	4.1	22
27	Topological holographic quench dynamics in a synthetic frequency dimension. Light: Science and Applications, 2021, 10, 209.	16.6	20
28	Patterning Graphene Film by Magnetic-assisted UV Ozonation. Scientific Reports, 2017, 7, 46583.	3.3	19
29	Finite-Dimensional Bistable Topological Insulators: From Small to Large. Laser and Photonics Reviews, 2019, 13, 1900198.	8.7	19
30	Fast- and slow-light-enhanced light drag in a moving microcavity. Communications Physics, 2020, 3, .	5.3	19
31	Multiphysical sensing of light, sound and microwave in a microcavity Brillouin laser. Nanophotonics, 2020, 9, 2915-2925.	6.0	19
32	Multiuser Time-Energy Entanglement Swapping Based on Dense Wavelength Division Multiplexed and Sum-Frequency Generation. Physical Review Letters, 2019, 123, 250505.	7.8	18
33	Plasmonic lattice solitons beyond the coupled-mode theory. Laser and Photonics Reviews, 2014, 8, L52.	8.7	17
34	Isolated Photonic Flatband with the Effective Magnetic Flux in a Synthetic Space Including the Frequency Dimension. Laser and Photonics Reviews, 2020, 14, 2000041.	8.7	17
35	Transverse Anderson localization of light near Dirac points of photonic nanostructures. Scientific Reports, 2015, 5, 15585.	3.3	16
36	Dynamic computer-generated nonlinear-optical holograms. Physical Review A, 2017, 96, .	2.5	16

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37	Blue-Violet Emission with Near-Unity Photoluminescence Quantum Yield from Cu(I)-Doped Rb <sub>3</sub> InCl <sub>6</sub> Single Crystals. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 7928-7934.	4.6	16
38	Spectral compression of single-photon-level laser pulse. <i>Scientific Reports</i> , 2017, 7, 43494.	3.3	15
39	Unveiling Charge Carrier Recombination, Extraction, and Hot-Carrier Dynamics in Indium Incorporated Highly Efficient and Stable Perovskite Solar Cells. <i>Advanced Science</i> , 2022, 9, e2103491.	11.2	15
40	Tunable super- and subradiant boundary states in one-dimensional atomic arrays. <i>Communications Physics</i> , 2019, 2, .	5.3	13
41	Bloch oscillations in arrays of helical waveguides. <i>Physical Review A</i> , 2018, 97, .	2.5	12
42	High harmonic optomechanical oscillations in the lithium niobate photonic crystal nanocavity. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	12
43	Metal-Free Flat Lens Using Negative Refraction by Nonlinear Four-Wave Mixing. <i>Physical Review Letters</i> , 2014, 113, 217401.	7.8	11
44	Design of multi-layered TiO <sub>2</sub> nanotube/nanoparticle hybrid structure for enhanced efficiency in dye-sensitized solar cells. <i>RSC Advances</i> , 2014, 4, 45180-45184.	3.6	11
45	Assembly of a high-scattering photoelectrode using a hybrid nano-TiO <sub>2</sub> paste. <i>Journal of Materials Chemistry C</i> , 2015, 3, 6645-6651.	5.5	11
46	A possible pathogenetic factor of sickle-cell disease based on fluorescent analysis via an optofluidic resonator. <i>Scientific Reports</i> , 2017, 7, 3174.	3.3	11
47	Electrochemical synthesis of annealing-free and highly stable black-phase CsPbI <sub>3</sub> perovskite. <i>Chemical Communications</i> , 2021, 57, 8981-8984.	4.1	11
48	Conical reflection of light during free-space coupling into a symmetrical metal-cladding waveguide. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2013, 30, 1901.	1.5	10
49	Localization-delocalization transition in spin-orbit-coupled Bose-Einstein condensate. <i>Scientific Reports</i> , 2016, 6, 31700.	3.3	10
50	Tunability and Robustness of Dirac Points of Photonic Nanostructures. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2016, 22, 98-106.	2.9	10
51	Quantum mechanical analysis of nonlinear optical response of interacting graphene nanoflakes. <i>APL Photonics</i> , 2018, 3, 016102.	5.7	10
52	Tunable Linear Polarization-State Generator of Single Photons on a Lithium Niobate Chip. <i>Physical Review Applied</i> , 2020, 13, .	3.8	10
53	Frequency Manipulations in Single-Photon Quantum Transport under Ultrastrong Driving. <i>ACS Photonics</i> , 2020, 7, 2010-2017.	6.6	10
54	Generation of Subwavelength Plasmonic Nanovortices via Helically Corrugated Metallic Nanowires. <i>Scientific Reports</i> , 2015, 5, 13089.	3.3	9

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55	Nonlinear frequency conversion of vectorial optical fields with a Mach-Zehnder interferometer. Applied Physics Letters, 2019, 114, .	3.3	9
56	Arbitrary synthetic dimensions via multiboson dynamics on a one-dimensional lattice. Physical Review Research, 2021, 3, .	3.6	9
57	Observation of flat-band and band transition in the synthetic space. Advanced Photonics, 2022, 4, .	11.8	9
58	Single-Photon Transport in a Topological Waveguide from a Dynamically Modulated Photonic System. Physical Review Applied, 2020, 14, .	3.8	8
59	Single Pulse Manipulations in Synthetic Time-Frequency Space. Laser and Photonics Reviews, 2022, 16, 2100340.	8.7	8
60	Dielectric Optical-Controllable Magnifying Lens by Nonlinear Negative Refraction. Scientific Reports, 2015, 5, 11892.	3.3	7
61	Far-field super-resolution imaging by nonlinearly excited evanescent waves. Advanced Photonics, 2021, 3, .	11.8	7
62	The manipulation of second-order nonlinear harmonic wave by structured material and structured light. Journal of Nonlinear Optical Physics and Materials, 2018, 27, 1850047.	1.8	6
63	Dual-Wavelength Focusing through Fresnel Zone Plate Fabricated in Lithium Niobate Crystal by Femtosecond Laser Micromachining. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000213.	2.4	6
64	High-Performance Hyperentanglement Generation and Manipulation Based on Lithium Niobate Waveguides. Physical Review Applied, 2022, 17, .	3.8	6
65	Truncation-dependent $\text{PT}$ phase transition for the edge states of a two-dimensional non-Hermitian system. Physical Review B, 2022, 105, .	3.2	6
66	TiO <sub>2</sub> nanotube structures for the enhancement of photon utilization in sensitized solar cells. Nanotechnology Reviews, 2015, 4, .	5.8	5
67	Concentric Circular Grating Generated by the Patterning Trapping of Nanoparticles in an Optofluidic Chip. Scientific Reports, 2016, 6, 32018.	3.3	5
68	Efficient microfluidic photocatalysis in a symmetrical metal-cladding waveguide. Physical Chemistry Chemical Physics, 2016, 18, 4585-4588.	2.8	5
69	Symmetrical Metal Cladding Waveguide for Absorption Sensing and its Sensitivity Analysis. IEEE Photonics Journal, 2017, 9, 1-9.	2.0	5
70	UV Rewritable Hybrid Graphene/Phosphor p-n Junction Photodiode. ACS Applied Materials & Interfaces, 2019, 11, 43351-43358.	8.0	5
71	Three-dimensional nonlinear optical holograms. Physical Review A, 2020, 102, .	2.5	5
72	Label-free real-time ultrasensitive monitoring of non-small cell lung cancer cell interaction with drugs. Biomedical Optics Express, 2018, 9, 4149.	2.9	4

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73	Ultraviolet waveband vector beams generation assisted by the nonlinear frequency conversion. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	4
74	Simulating graphene dynamics in synthetic space with photonic rings. <i>Communications Physics</i> , 2021, 4, .	5.3	4
75	A two-way photonic quantum entanglement transfer interface. <i>Npj Quantum Information</i> , 2022, 8, .	6.7	4
76	Excitation-polarization-dependent dynamics of polariton condensates in the ZnO microwire at room temperature. <i>Journal of Physics Condensed Matter</i> , 2022, 34, 22LT01.	1.8	4
77	Nonlinear Snell law for grazing incidence along interfaces with discontinuous second-order susceptibilities. <i>Physical Review A</i> , 2017, 95, .	2.5	3
78	Boosted Structural Stability and Interfacial Charge Transfer in $\text{C}_{60}\text{m}/\text{O}_2\text{n}/\text{Cl}_k/\text{[FA,MA]Pb}_{1+y}\text{I}_3$ Heterostructures. <i>Journal of Physical Chemistry C</i> , 2021, 125, 18866-18876.	4.5	3
79	Single-cell detection by enhancement of fluorescence in waveguides for cancer diagnosis and therapy. <i>Photonics Research</i> , 2021, 9, 2381.	7.0	3
80	All-photonic synapse based on iron-doped lithium niobate double metal-cladding waveguides. <i>Physical Review B</i> , 2021, 104, .	3.2	3
81	Enhancement of UV Second-Harmonic Radiation at Nonlinear Interfaces with Discontinuous Second-order Susceptibilities. <i>Scientific Reports</i> , 2018, 8, 6695.	3.3	2
82	Nonlinear Moiré Superlattice for Super-Resolution Nondestructive Detection of Nonlinear Photonic Crystals. <i>Laser and Photonics Reviews</i> , 2021, 15, 2000596.	8.7	2
83	Selection of Emission Wavelength of Lasing via a Hybrid Microcavity. <i>Physical Review Applied</i> , 2021, 16, .	3.8	2
84	Maskless nanostructure photolithography by ultrahigh-order modes of a symmetrical metal-cladding waveguide. <i>Optics Letters</i> , 2022, 47, 62.	3.3	2
85	Fermi surface topology and anisotropic superconducting gap in electron-doped hydride compounds at high pressure. <i>Physical Review Materials</i> , 2022, 6, .	2.4	2
86	Nonlinear thermal emission and visible thermometry. <i>Advanced Photonics</i> , 2022, 4, .	11.8	1
87	Slowdown of group velocity of light in PPLN by employing electro-optic effect. <i>Journal of Nonlinear Optical Physics and Materials</i> , 2014, 23, 1450006.	1.8	0
88	Influence of <i>In Situ</i> Oxide Dissolution on the Bottom Morphologies of Detached $\text{TiO}_2$ Nanotube Films. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-9.	2.7	0
89	The role of ferroelectric domain wall in nonlinear Cerenkov frequency up-conversion in 1D nonlinear crystal. , 2016, , .		0
90	Coupled wave equation study of non-collinear phase-matching second harmonic generation and nonlinear Cerenkov radiation generated on the surface of bulk lithium niobate crystals doped with magnesium medium. <i>Journal of Applied Physics</i> , 2018, 124, 152123.	2.5	0

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91	Monitoring Various Bioactivities at the Molecular, Cellular, Tissue, and Organism Levels via Biological Lasers. <i>Sensors</i> , 2022, 22, 3149.	3.8	0