Xiang Hao

List of Publications by Year in descending order

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95 papers	1,846 citations	394421 19 h-index	289244 40 g-index
101 all docs	101 docs citations	101 times ranked	1341 citing authors

#	Article	IF	Citations
1	Phase encoding for sharper focus of the azimuthally polarized beam. Optics Letters, 2010, 35, 3928.	3.3	202
2	Effects of polarization on the de-excitation dark focal spot in STED microscopy. Journal of Optics (United Kingdom), 2010, 12, 115707.	2.2	170
3	Microsphere based microscope with optical super-resolution capability. Applied Physics Letters, 2011, 99, .	3.3	155
4	Breaking the Diffraction Barrier Using Fluorescence Emission Difference Microscopy. Scientific Reports, 2013, 3, 1441.	3.3	131
5	Freeform surface lens for LED uniform illumination. Applied Optics, 2009, 48, 6627.	2.1	126
6	From microscopy to nanoscopy via visible light. Light: Science and Applications, 2013, 2, e108-e108.	16.6	81
7	Spectral imaging with deep learning. Light: Science and Applications, 2022, 11, 61.	16.6	67
8	Fluorescent Nanowire Ring Illumination for Wide-Field Far-Field Subdiffraction Imaging. Physical Review Letters, 2017, 118, 076101.	7.8	62
9	Deeply learned broadband encoding stochastic hyperspectral imaging. Light: Science and Applications, 2021, 10, 108.	16.6	61
10	Far-field super-resolution imaging using near-field illumination by micro-fiber. Applied Physics Letters, 2013, 102, 013104.	3.3	49
11	Formation of sub-half-wavelength focal spot with ultra long depth of focus. Optics Communications, 2011, 284, 1766-1769.	2.1	43
12	Three-dimensional adaptive optical nanoscopy for thick specimen imaging at sub-50-nm resolution. Nature Methods, 2021, 18, 688-693.	19.0	39
13	Deepâ€Learned Broadband Encoding Stochastic Filters for Computational Spectroscopic Instruments. Advanced Theory and Simulations, 2021, 4, 2000299.	2.8	27
14	Fast reconstruction algorithm for structured illumination microscopy. Optics Letters, 2020, 45, 1567.	3.3	27
15	Evanescent-wave-induced frequency shift for optical superresolution imaging. Optics Letters, 2013, 38, 2455.	3.3	26
16	Time-gated stimulated emission depletion nanoscopy. Optical Engineering, 2013, 52, 093107.	1.0	25
17	Hydrophilic microsphere based mesoscopic-lens microscope (MMM). Optics Communications, 2012, 285, 4130-4133.	2.1	23
18	Enhancing the performance of fluorescence emission difference microscopy using beam modulation. Journal of Optics (United Kingdom), 2013, 15, 125708.	2.2	23

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19	Aberrations in 4Pi Microscopy. Optics Express, 2017, 25, 14049.	3.4	23
20	Principles of Different X-ray Phase-Contrast Imaging: A Review. Applied Sciences (Switzerland), 2021, 11, 2971.	2.5	23
21	A quadrant detector based laser alignment method with higher sensitivity. Optik, 2012, 123, 2238-2240.	2.9	19
22	Point-spread function optimization in isoSTED nanoscopy. Optics Letters, 2015, 40, 3627.	3.3	18
23	Experimental verification of the far-field subwavelength focusing with multiple concentric nanorings. Applied Physics Letters, 2010, 97, .	3.3	17
24	A method for extending depth of focus in STED nanolithography. Journal of Optics (United Kingdom), 2012, 14, 045702.	2.2	17
25	Creating attoliter detection volume by microsphere photonic nanojet and fluorescence depletion. Optics Communications, 2012, 285, 402-406.	2.1	16
26	Ultra-fast, universal super-resolution radial fluctuations (SRRF) algorithm for live-cell super-resolution microscopy. Optics Express, 2019, 27, 38337.	3.4	16
27	Freeform surface lens design for uniform illumination. Journal of Optics, 2008, 10, 075005.	1.5	13
28	A method for generating a three-dimensional dark spot using a radially polarized beam. Journal of Optics (United Kingdom), 2011, 13, 125704.	2.2	13
29	Focusing properties of cylindrical vector vortex beams with high numerical aperture objective. Optik, 2013, 124, 4762-4765.	2.9	13
30	Resolution Enhancement and Background Suppression in Optical Superâ€Resolution Imaging for Biological Applications. Laser and Photonics Reviews, 2021, 15, .	8.7	13
31	Optical super-resolution by subtraction of time-gated images. Optics Letters, 2013, 38, 1001.	3.3	12
32	A self-adaptive method for creating high efficiency communication channels through random scattering media. Scientific Reports, 2015, 4, 5874.	3.3	12
33	Pulsed Saturated Absorption Competition Microscopy on Nonbleaching Nanoparticles. ACS Photonics, 2020, 7, 1788-1798.	6.6	12
34	Generation of a 3D isotropic hollow focal spot for single-objective stimulated emission depletion microscopy. Journal of Optics (United Kingdom), 2012, 14, 085704.	2.2	11
35	Rugate notch filter fabricated by atomic layer deposition. Applied Optics, 2014, 53, A270.	1.8	11
36	Manipulation of doughnut focal spot by image inverting interferometry. Optics Letters, 2012, 37, 821.	3.3	10

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37	Deformable mirror based optimal PSF engineering for 3D super-resolution imaging. Optics Letters, 2022, 47, 3031.	3.3	10
38	Continuous manipulation of doughnut focal spot in a large scale. Optics Express, 2012, 20, 12692.	3.4	9
39	High-precision laser alignment technique based on spiral phase plate. Optics and Lasers in Engineering, 2012, 50, 944-949.	3.8	9
40	Parameter optimization for photonic nanojet of dielectric microsphere. Optoelectronics Letters, 2013, 9, 153-156.	0.8	9
41	Sub-diffraction imaging with confocal fluorescence microscopy by stochastic photobleaching. Optics Communications, 2014, 312, 62-67.	2.1	9
42	Aberrations in Structured Illumination Microscopy: A Theoretical Analysis. Frontiers in Physics, 2020, 7, .	2.1	9
43	Subwavelength focusing by a microsphere array. Journal of Optics (United Kingdom), 2011, 13, 035702.	2.2	8
44	Precise broad-band anti-refection coating fabricated by atomic layer deposition. Optics Communications, 2013, 292, 31-35.	2.1	8
45	Reduction of coating induced polarization aberrations by controlling the polarization state variation. Journal of Optics (United Kingdom), 2011, 13, 055701.	2.2	7
46	An interferential method for generating polarization-rotatable cylindrical vector beams. Optics Communications, 2013, 286, 6-12.	2.1	7
47	A lateral differential confocal microscopy for accurate detection and localization of edge contours. Optics and Lasers in Engineering, 2014, 53, 12-18.	3.8	7
48	A 3D aligning method for stimulated emission depletion microscopy using fluorescence lifetime distribution. Microscopy Research and Technique, 2014, 77, 935-940.	2.2	7
49	Review of compact computational spectral information acquisition systems. Frontiers of Information Technology and Electronic Engineering, 2020, 21, 1119-1133.	2.6	7
50	A Labeling Strategy for Living Specimens in Long-Term/Super-Resolution Fluorescence Imaging. Frontiers in Chemistry, 2020, 8, 601436.	3.6	7
51	Single-shot grating-based X-ray phase contrast imaging via generative adversarial network. Optics and Lasers in Engineering, 2022, 152, 106960.	3.8	7
52	Factors Affecting the Spatial Resolution in 2D Gratingâ€“Based X-Ray Phase Contrast Imaging. Frontiers in Physics, 2021, 9, .	2.1	6
53	3D super-resolution microscopy based on nonlinear gradient descent structured illumination. Optics Express, 2021, 29, 21428.	3.4	6
54	Review of 4Pi Fluorescence Nanoscopy. Engineering, 2022, 11, 146-153.	6.7	6

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55	Total variation and spatial iteration-based 3D structured illumination microscopy. Optics Express, 2022, 30, 7938.	3.4	6
56	Superenhanced three-dimensional confinement of light by compound metal-dielectric microspheres. Optics Express, 2012, 20, 16981.	3.4	5
57	Cellâ€permeable organic fluorescent probes for liveâ€cell superâ€resolution imaging of actin filaments. Journal of Chemical Technology and Biotechnology, 2019, 94, 2040-2046.	3.2	5
58	Dichroic Circular Polarizers Based on Plasmonics for Polarization Imaging Applications. Nanomaterials, 2021, 11, 2145.	4.1	5
59	Isotropic three-dimensional imaging with lattice light-sheet difference microscopy. Optics Letters, 2020, 45, 2854.	3.3	5
60	Superresolution confocal technology for displacement measurements based on total internal reflection. Review of Scientific Instruments, 2010, 81, 103702.	1.3	4
61	Contrast reversal confocal microscopy. Optics Communications, 2013, 298-299, 272-275.	2.1	4
62	Super-Resolution Structured Illumination Microscopy Reconstruction Using a Least-Squares Solver. Frontiers in Physics, 2020, 8, .	2.1	4
63	Stimulated emission depletion microscopy with array detection and photon reassignment. Optics and Lasers in Engineering, 2020, 129, 106061.	3.8	4
64	Generation of Arbitrary Longitudinal Polarization Vortices by Pupil Function Manipulation. Advanced Photonics Research, 2021, 2, 2000087.	3.6	4
65	Calibration of phase-only liquid-crystal spatial light modulators by diffractogram analysis. Optics and Lasers in Engineering, 2022, 156, 107056.	3.8	4
66	Speckle-free laser projection structured illumination microscopy based on a digital micromirror device. Optics Express, 2021, 29, 43917.	3.4	4
67	Methods for generating a dark spot using phase and polarization modulation light. Optik, 2013, 124, 650-654.	2.9	3
68	Image scanning difference microscopy. Journal of Microscopy, 2019, 276, 98-106.	1.8	3
69	Super-resolution microscopy based on parallel detection. Journal of Innovative Optical Health Sciences, 2019, 12, .	1.0	3
70	Sub-60-nm 3D super-resolution imaging via saturated I5S. Optics Communications, 2020, 473, 125981.	2.1	3
71	Three-Dimension Resolution Enhanced Microscopy Based on Parallel Detection. Applied Sciences (Switzerland), 2021, 11, 2837.	2.5	3
72	Analytical description of sub-diffraction dark spot. Optics Communications, 2021, 499, 127295.	2.1	3

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73	Quantitative objective-based ring TIRFM system calibration through back focal plane imaging. Optics Letters, 2020, 45, 3001.	3.3	3
74	All-day thin-lens computational imaging with scene-specific learning recovery. Applied Optics, 2022, 61, 1097.	1.8	3
75	Modulated illumination localization microscopy-enabled sub-10 nm resolution. Journal of Innovative Optical Health Sciences, 2022, 15, .	1.0	3
76	Enhanced axial resolution of lattice light sheet microscopy by fluorescence differential detection. Optics Express, 2022, 30, 27381.	3.4	3
77	Sharper focal spot below Î»/4 of azimuthally polarized illumination phase-encoded by the binary 0/Ï€ phase plate. Optik, 2012, 123, 2179-2182.	2.9	2
78	Dynamic live-cell super-resolution imaging with parallelized fluorescence emission difference microscopy. Optics Communications, 2020, 460, 125087.	2.1	2
79	3D resolution enhancement in saturated competition microscopy. Applied Optics, 2020, 59, 10661.	1.8	2
80	Effect of coating-induced polarization aberrations on the focusing properties in high numerical aperture optical system. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 154214.	0.5	2
81	Sensorless adaptive optics for isoSTED nanoscopy. , 2018, , .		2
82	Dual-color simultaneous structured illumination microscopy based on galvo-mirrors. Optics Communications, 2022, 511, 128012.	2.1	2
83	High speed optical nanoscopy by stimulated emission depletion (STED) with galvo mirrors. Proceedings of SPIE, 2013, , .	0.8	1
84	Sub-diffraction dark spot localization microscopy. Photonics Research, 2021, 9, 1455.	7.0	1
85	Label-free difference super-resolution microscopy based on parallel detection. Applied Optics, 2019, 58, 9069.	1.8	1
86	Optical super-resolution microscope based on microsphere. Proceedings of SPIE, 2012, , .	0.8	0
87	3D Nanoscopy with Sub-60 nm Resolution Deep Inside Tissue Using Adaptive Optics. , 2018, , .		0
88	A Review on Dual-Lens Fluorescence Microscopy for Three-Dimensional Imaging. Frontiers in Physics, 2020, 8, .	2.1	0
89	Background suppression with dual modulation by saturated absorption competition microscopy. Optics and Lasers in Engineering, 2021, 147, 106750.	3.8	0
90	Far-field Optical Nanoscopy via Visible Light. , 2013, , .		0

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91	Using subtraction strategy to enhance the resolution of concofcal microscopy. , 2013, , .		0
92	Circular Polarizer Based on Multi-stack Plasmonic Nanostructure for Optical Communication. , 2021, , .		0
93	Broadband Metasurface Absorber Based on Metal-dielectric Nanodisks. , 2021, , .		0
94	Sub-diffraction dark spot localization microscopy. , 2020, , .		0
95	Modulated pattern scanning microscopy. Optics Letters, 2022, 47, 1721.	3.3	0