Guoan Zheng

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4439361/publications.pdf

Version: 2024-02-01

136 papers	7,582 citations	71102 41 h-index	54911 84 g-index
141 all docs	141 docs citations	141 times ranked	3518 citing authors

#	Article	IF	Citations
1	Ptychographic sensor for large-scale lensless microbial monitoring with high spatiotemporal resolution. Biosensors and Bioelectronics, 2022, 196, 113699.	10.1	17
2	Ringing-free fast Fourier single-pixel imaging. Optics Letters, 2022, 47, 1017.	3.3	4
3	Robust multi-angle structured illumination lensless microscopy via illumination angle calibration. Optics Letters, 2022, 47, 1847.	3.3	5
4	Blood-Coated Sensor for High-Throughput Ptychographic Cytometry on a Blu-ray Disc. ACS Sensors, 2022, 7, 1058-1067.	7.8	19
5	High-throughput digital pathology via a handheld, multiplexed, and AI-powered ptychographic whole slide scanner. Lab on A Chip, 2022, 22, 2657-2670.	6.0	18
6	SPARC: Sex difference in colorectal afferent sensitization in zymosanâ€induced visceral hypersensitivity as revealed by highâ€throughput GCaMP recordings in thoracolumbar and lumbosacral DRG. FASEB Journal, 2022, 36, .	0.5	0
7	Deep distributed optimization for blind diffuser-modulation ptychography. Optics Letters, 2022, 47, 3015.	3.3	3
8	Synthetic aperture ptychography: coded sensor translation for joint spatial-Fourier bandwidth expansion. Photonics Research, 2022, 10, 1624.	7.0	13
9	Concept, implementations and applications of Fourier ptychography. Nature Reviews Physics, 2021, 3, 207-223.	26.6	180
10	High-Throughput Functional Characterization of Visceral Afferents by Optical Recordings From Thoracolumbar and Lumbosacral Dorsal Root Ganglia. Frontiers in Neuroscience, 2021, 15, 657361.	2.8	2
11	Single-pixel ptychography. Optics Letters, 2021, 46, 1624.	3.3	19
12	Mask-modulated lensless imaging via translated structured illumination. Optics Express, 2021, 29, 12491.	3.4	10
13	Review of bio-optical imaging systems with a high space-bandwidth product. Advanced Photonics, 2021, 3, .	11.8	48
14	High-throughput lensless whole slide imaging via continuous height-varying modulation of a tilted sensor. Optics Letters, 2021, 46, 5212.	3.3	11
15	Accelerated Phase Shifting for Structured Illumination Microscopy Based on Deep Learning. IEEE Transactions on Computational Imaging, 2021, 7, 700-712.	4.4	5
16	Effective color transfer enables rapid computational microscopy for digital pathology. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	5.1	0
17	Resolution-Enhanced Parallel Coded Ptychography for High-Throughput Optical Imaging. ACS Photonics, 2021, 8, 3261-3271.	6.6	36
18	Ptychography-based high-throughput lensless on-chip microscopy via incremental proximal algorithms. Optics Express, 2021, 29, 37892.	3.4	6

#	Article	IF	Citations
19	Quantitative multi-height phase retrieval via a coded image sensor. Biomedical Optics Express, 2021, 12, 7173.	2.9	15
20	Optofluidic ptychography on a chip. Lab on A Chip, 2021, 21, 4549-4556.	6.0	12
21	Deep learning-enabled whole slide imaging (DeepWSI): oil-immersion quality using dry objectives, longer depth of field, higher system throughput, and better functionality. Optics Express, 2021, 29, 39669.	3.4	12
22	Ptychographic modulation engine: a low-cost DIY microscope add-on for coherent super-resolution imaging. Journal Physics D: Applied Physics, 2020, 53, 014005.	2.8	21
23	In Situ Microscopy Study of ZnO Acid Etching Nanostructures. Microscopy and Microanalysis, 2020, 26, 1464-1466.	0.4	0
24	Autofocusing technologies for whole slide imaging and automated microscopy. Journal of Biophotonics, 2020, 13, e202000227.	2.3	60
25	Wirtinger gradient descent optimization for reducing Gaussian noise in lensless microscopy. Optics and Lasers in Engineering, 2020, 134, 106131.	3.8	9
26	Wide-field, high-resolution lensless on-chip microscopy via near-field blind ptychographic modulation. Lab on A Chip, 2020, 20, 1058-1065.	6.0	80
27	Image-free classification of fast-moving objects using â€œlearnedâ€•structured illumination and single-pixel detection. Optics Express, 2020, 28, 13269.	3.4	48
28	Super-resolved multispectral lensless microscopy via angle-tilted, wavelength-multiplexed ptychographic modulation. Optics Letters, 2020, 45, 3486.	3.3	28
29	Virtual brightfield and fluorescence staining for Fourier ptychography via unsupervised deep learning. Optics Letters, 2020, 45, 5405.	3.3	22
30	OpenWSI: a low-cost, high-throughput whole slide imaging system via single-frame autofocusing and open-source hardware. Optics Letters, 2020, 45, 260.	3.3	45
31	Rapid and robust whole slide imaging based on LED-array illumination and color-multiplexed single-shot autofocusing. Quantitative Imaging in Medicine and Surgery, 2019, 9, 823-831.	2.0	12
32	Full-field Fourier ptychography (FFP): Spatially varying pupil modeling and its application for rapid field-dependent aberration metrology. APL Photonics, 2019, 4, .	5.7	32
33	Optical recording reveals topological distribution of functionally classified colorectal afferent neurons in intact lumbosacral <scp>DRG</scp>. Physiological Reports, 2019, 7, e14097.	1.7	15
34	Whole slide imaging of circulating tumor cells captured on a capillary microchannel device. Lab on A Chip, 2019, 19, 3796-3803.	6.0	8
35	Near-field Fourier ptychography: super-resolution phase retrieval via speckle illumination. Optics Express, 2019, 27, 7498.	3.4	51
36	Field-portable quantitative lensless microscopy based on translated speckle illumination and sub-sampled ptychographic phase retrieval. Optics Letters, 2019, 44, 1976.	3.3	40

#	Article	IF	Citations
37	Quantitative phase imaging via a cGAN network with dual intensity images captured under centrosymmetric illumination. Optics Letters, 2019, 44, 2879.	3.3	12
38	Super-resolution microscopy via ptychographic structured modulation of a diffuser. Optics Letters, 2019, 44, 3645.	3.3	42
39	Axially shifted pattern illumination for macroscale turbidity suppression and virtual volumetric confocal imaging without axial scanning. Optics Letters, 2019, 44, 811.	3.3	0
40	Dual lightâ€emitting diodeâ€based multichannel microscopy for wholeâ€slide multiplane, multispectral and phase imaging. Journal of Biophotonics, 2018, 11, e201700075.	2.3	20
41	13-fold resolution gain through turbid layer via translated unknown speckle illumination. Biomedical Optics Express, 2018, 9, 260.	2.9	30
42	Transform- and multi-domain deep learning for single-frame rapid autofocusing in whole slide imaging. Biomedical Optics Express, 2018, 9, 1601.	2.9	51
43	Solving Fourier ptychographic imaging problems via neural network modeling and TensorFlow. Biomedical Optics Express, 2018, 9, 3306.	2.9	90
44	Simultaneous spatial, spectral, and 3D compressive imaging via efficient Fourier single-pixel measurements. Optica, 2018, 5, 315.	9.3	129
45	Single-shot lensless imaging via simultaneous multi-angle LED illumination. Optics Express, 2018, 26, 21418.	3.4	22
46	Invited Article: Mask-modulated lensless imaging with multi-angle illuminations. APL Photonics, 2018, 3, 060803.	5.7	30
47	Terapixel hyperspectral whole-slide imaging via slit-array detection and projection. Journal of Biomedical Optics, 2018, 23, 1.	2.6	14
48	Micro-tomography via single-pixel imaging. Optics Express, 2018, 26, 31094.	3.4	32
49	Moistureâ€Responsive Wrinkling Surfaces with Tunable Dynamics. Advanced Materials, 2017, 29, 1700828.	21.0	133
50	Fourier ptychographic microscopy using wavelength multiplexing. Journal of Biomedical Optics, 2017, 22, 066006.	2.6	23
51	Fast Fourier single-pixel imaging via binary illumination. Scientific Reports, 2017, 7, 12029.	3.3	163
52	Wrinkling Devices: Moistureâ€Responsive Wrinkling Surfaces with Tunable Dynamics (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	21.0	3
53	Observation of reflectionless absorption due to spatial Kramersâ€“Kronig profile. Nature Communications, 2017, 8, 51.	12.8	44
54	Hadamard single-pixel imaging versus Fourier single-pixel imaging. Optics Express, 2017, 25, 19619.	3.4	315

#	Article	IF	Citations
55	Subsampled phase retrieval for temporal resolution enhancement in lensless on-chip holographic video. Biomedical Optics Express, 2017, 8, 1981.	2.9	18
56	Rapid focus map surveying for whole slide imaging with continuous sample motion. Optics Letters, 2017, 42, 3379.	3.3	42
57	Stiffness analysis of 3D spheroids using microtweezers. PLoS ONE, 2017, 12, e0188346.	2.5	57
58	Diffraction tomography with Fourier ptychography. Optica, 2016, 3, 827.	9.3	193
59	Multilayer fluorescence imaging on a single-pixel detector. Biomedical Optics Express, 2016, 7, 2425.	2.9	33
60	Motion-corrected Fourier ptychography. Biomedical Optics Express, 2016, 7, 4543.	2.9	30
61	Single-frame rapid autofocusing for brightfield and fluorescence whole slide imaging. Biomedical Optics Express, 2016, 7, 4763.	2.9	40
62	Angular light modulator using optical blinds. Optics Express, 2016, 24, 28467.	3.4	0
63	Roadmap on neurophotonics. Journal of Optics (United Kingdom), 2016, 18, 093007.	2.2	28
64	Virtual<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>k</mml:mi></mml:math>-Space Modulation Optical Microscopy. Physical Review Letters, 2016, 117, 028102.	7.8	32
65	Fourier Ptychography for Brightfield, Phase, Darkfield, Reflective, Multi-Slice, and Fluorescence Imaging. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 77-88.	2.9	66
66	Reflective Fourier ptychography. Journal of Biomedical Optics, 2016, 21, 026010.	2.6	47
67	Wavelength Multiplexed Fourier Ptychograhic Microscopy. , 2016, , .		2
68	Imaging innovations for wide-field, high-resolution microscopy. , 2016, , .		0
69	Imaging innovations for wide-field, high-resolution microscopy. , 2016, , .		0
70	Fourier ptychographic imaging. , 2015, , .		3
71	Fourier ptychography for multimodal imaging. , 2015, , .		0
72	Recovering higher dimensional image data using multiplexed structured illumination. Optics Express, 2015, 23, 30393.	3.4	19

#	Article	IF	Citations
73	LCD-based digital eyeglass for modulating spatial-angular information. Optics Express, 2015, 23, 11813.	3.4	1
74	Microscopy illumination engineering using a low-cost liquid crystal display. Biomedical Optics Express, 2015, 6, 574.	2.9	61
75	Resolution doubling with a reduced number of image acquisitions. Biomedical Optics Express, 2015, 6, 2946.	2.9	39
76	Fourier ptychographic reconstruction using Wirtinger flow optimization. Optics Express, 2015, 23, 4856.	3.4	137
77	Optimization of sampling pattern and the design of Fourier ptychographic illuminator. Optics Express, 2015, 23, 6171.	3.4	110
78	Camera array based light field microscopy. Biomedical Optics Express, 2015, 6, 3179.	2.9	98
79	High numerical aperture Fourier ptychography: principle, implementation and characterization. Optics Express, 2015, 23, 3472.	3.4	151
80	Incoherent Fourier ptychographic photography using structured light. Photonics Research, 2015, 3, 19.	7.0	49
81	InstantScope: a low-cost whole slide imaging system with instant focal plane detection. Biomedical Optics Express, 2015, 6, 3210.	2.9	56
82	Digital pathology with Fourier ptychography. Computerized Medical Imaging and Graphics, 2015, 42, 38-43.	5.8	76
83	Observation of Wave Packet Distortion during a Negative-Group-Velocity Transmission. Scientific Reports, 2015, 5, 8100.	3.3	13
84	Fourier Ptychographic Microscopy: A Gigapixel Superscope for Biomedicine. Optics and Photonics News, 2014, 25, 26.	0.5	40
85	Fourier ptychographic microscopy for filtration-based circulating tumor cell enumeration and analysis. Journal of Biomedical Optics, 2014, 19, 066007.	2.6	73
86	Overlapped Fourier coding for optical aberration removal. Optics Express, 2014, 22, 24062.	3.4	40
87	Breakthroughs in Photonics 2013: Fourier Ptychographic Imaging. IEEE Photonics Journal, 2014, 6, 1-7.	2.0	38
88	Content adaptive illumination for Fourier ptychography. Optics Letters, 2014, 39, 6648.	3.3	86
89	Aperture-scanning Fourier ptychography for 3D refocusing and super-resolution macroscopic imaging. Optics Express, 2014, 22, 13586.	3.4	166
90	FPscope: a field-portable high-resolution microscope using a cellphone lens. Biomedical Optics Express, 2014, 5, 3305.	2.9	81

#	Article	IF	Citations
91	05 gigapixel microscopy using a flatbed scanner. Biomedical Optics Express, 2014, 5, 1.	2.9	38
92	Spectral multiplexing and coherent-state decomposition in Fourier ptychographic imaging. Biomedical Optics Express, 2014, 5, 1757.	2.9	161
93	Embedded pupil function recovery for Fourier ptychographic microscopy. Optics Express, 2014, 22, 4960.	3.4	311
94	Sparsely sampled Fourier ptychography. Optics Express, 2014, 22, 5455.	3.4	116
95	High-resolution fluorescence imaging via pattern-illuminated Fourier ptychography. Optics Express, 2014, 22, 20856.	3.4	142
96	Modeling Extensions of Fourier Ptychographic Microscopy. Microscopy and Microanalysis, 2014, 20, 370-371.	0.4	3
97	Imaging and Identification of Waterborne Parasites Using a Chip-Scale Microscope. PLoS ONE, 2014, 9, e89712.	2.5	31
98	Fourier ptychography: a computational framework for high-resolution, high-throughput imaging. , 2014, , .		0
99	Fourier ptychography: a computational framework for high-resolution, high-throughput imaging. , 2014, , .		0
100	Wide-field, high-resolution Fourier ptychographic microscopy. Nature Photonics, 2013, 7, 739-745.	31.4	1,286
101	Negative Group Velocity in the Absence of Absorption Resonance. Scientific Reports, 2013, 3, 1628.	3.3	20
102	Adaptive system correction for robust Fourier ptychographic imaging. Optics Express, 2013, 21, 32400.	3.4	127
103	Characterization of spatially varying aberrations for wide field-of-view microscopy. Optics Express, 2013, 21, 15131.	3.4	67
104	Quantitative phase imaging via Fourier ptychographic microscopy. Optics Letters, 2013, 38, 4845.	3.3	289
105	Chip-scale Microscopy for On-chip Cell Monitoring. Microscopy and Microanalysis, 2012, 18, 1220-1221.	0.4	11
106	On-chip continuous monitoring of motile microorganisms on an ePetri platform. Lab on A Chip, 2012, 12, 2385.	6.0	36
107	Optical imaging techniques in microfluidics and their applications. Lab on A Chip, 2012, 12, 3566.	6.0	272
108	Chipâ€scale microscopy imaging. Journal of Biophotonics, 2012, 5, 639-649.	2.3	6

#	Article	IF	Citations
109	Digital Petri Dish for On-chip Cell Monitoring. , 2012, , .		0
110	Towards Giga-pixel Microscopy. , 2012, , .		0
111	Subpixel resolving optofluidic microscope based on super resolution algorithm. , 2011, , .		3
112	Focal plane tuning in wide-field-of-view microscope with Talbot pattern illumination. Optics Letters, 2011, 36, 2179.	3.3	23
113	Microscopy refocusing and dark-field imaging by using a simple LED array. Optics Letters, 2011, 36, 3987.	3.3	133
114	The ePetri dish, an on-chip cell imaging platform based on subpixel perspective sweeping microscopy (SPSM). Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16889-16894.	7.1	188
115	Color-capable sub-pixel resolving optofluidic microscope for on-chip cell imaging. , 2011, , .		2
116	Stereoscopic optofluidic on-chip microscope. , 2011, , .		3
117	Boosting detection sensitivity by using a surface-wave-enabled darkfield aperture (SWEDA). , 2011, , .		0
118	Color Capable Sub-Pixel Resolving Optofluidic Microscope and Its Application to Blood Cell Imaging for Malaria Diagnosis. PLoS ONE, 2011, 6, e26127.	2.5	54
119	Surface-wave-enabled darkfield aperture for background suppression during weak signal detection. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9043-9048.	7.1	37
120	A wide field-of-view microscope based on holographic focus grid. , 2010, , .		0
121	Pixel level optical-transfer-function design based on the surface-wave-interferometry aperture. Optics Express, 2010, 18, 16499.	3.4	4
122	Wide field-of-view microscope based on holographic focus grid illumination. Optics Letters, 2010, 35, 2188.	3.3	36
123	Improving weak-signal identification via predetection background suppression by a pixel-level, surface-wave enabled dark-field aperture. Optics Letters, 2010, 35, 2636.	3.3	12
124	Sub-pixel resolving optofluidic microscope for on-chip cell imaging. Lab on A Chip, 2010, 10, 3125.	6.0	120
125	Multifunctional optofluidic microscope. , 2009, , .		0
126	A phase conjugate mirror inspired approach for building cloaking structures with left-handed materials. New Journal of Physics, 2009, 11, 033010.	2.9	12

#	Article	IF	Citations
127	Characterization of acceptance angles of â€˜small circular apertures. Optics Express, 2009, 17, 23903.	3.4	4
128	Light transmission along a slab waveguide with a core of anisotropic metamaterial. Optik, 2008, 119, 591-595.	2.9	7
129	Abrupt change of reflectivity from the strongly anisotropic metamaterial. Optics Communications, 2008, 281, 1941-1944.	2.1	7
130	Possible Abnormal Group Velocity in the Normal Dispersive Anisotropic Media. Journal of Electromagnetic Waves and Applications, 2008, 22, 1309-1317.	1.6	3
131	Enhancement of Evanescent Wave in an Electrically Anisotropic Slab with Partially Negative Permittivity Tensor. Journal of Electromagnetic Waves and Applications, 2008, 22, 1341-1350.	1.6	4
132	TRANSITION BEHAVIOR OF K-SURFACE: FROM HYPERBOLA TO ELLIPSE. Progress in Electromagnetics Research, 2008, 81, 267-277.	4.4	8
133	Electromagnetic equivalent model for phase conjugate mirror based on the utilization of left-handed material. Optics Express, 2007, 15, 13877.	3.4	3
134	Geometry Modulation in Optic Communication. , 2006, , .		0
135	A novel prototype of analog dual bandpass filter based on the composite right/left-handed ladder network. , 2006, , .		1
136	TE and TM bandgap in the metamaterial slab waveguide. , 2006, , .		0