Roarke Horstmeyer

List of Publications by Year
in descending order

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53	4,473	186265	243625
papers	citations	28 h-index	44 g-index

55	55	55	2905
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Wide-field, high-resolution Fourier ptychographic microscopy. Nature Photonics, 2013, 7, 739-745.	31.4	1,286
2	Guidestar-assisted wavefront-shaping methods for focusing light into biological tissue. Nature Photonics, 2015, 9, 563-571.	31.4	451
3	Quantitative phase imaging via Fourier ptychographic microscopy. Optics Letters, 2013, 38, 4845.	3.3	289
4	Speckle-scale focusing in the diffusive regime with time reversal of variance-encoded light (TROVE). Nature Photonics, 2013, 7, 300-305.	31.4	209
5	Diffraction tomography with Fourier ptychography. Optica, 2016, 3, 827.	9.3	193
6	Aperture-scanning Fourier ptychography for 3D refocusing and super-resolution macroscopic imaging. Optics Express, 2014, 22, 13586.	3.4	166
7	Translation correlations in anisotropically scattering media. Nature Physics, 2015, 11, 684-689.	16.7	156
8	Generalized optical memory effect. Optica, 2017, 4, 886.	9.3	153
9	High numerical aperture Fourier ptychography: principle, implementation and characterization. Optics Express, 2015, 23, 3472.	3.4	151
10	Fourier ptychography: current applications and future promises. Optics Express, 2020, 28, 9603.	3.4	120
11	Standardizing the resolution claims for coherent microscopy. Nature Photonics, 2016, 10, 68-71.	31.4	94
12	Learned Integrated Sensing Pipeline: Reconfigurable Metasurface Transceivers as Trainable Physical Layer in an Artificial Neural Network. Advanced Science, 2020, 7, 1901913.	11.2	90
13	Physical key-protected one-time pad. Scientific Reports, 2013, 3, 3543.	3.3	89
14	Digital pathology with Fourier ptychography. Computerized Medical Imaging and Graphics, 2015, 42, 38-43.	5.8	76
15	Solving ptychography with a convex relaxation. New Journal of Physics, 2015, 17, 053044.	2.9	73
16	Reconstructing Undersampled Photoacoustic Microscopy Images Using Deep Learning. IEEE Transactions on Medical Imaging, 2021, 40, 562-570.	8.9	71
17	Toward Long-Distance Subdiffraction Imaging Using Coherent Camera Arrays. IEEE Transactions on Computational Imaging, 2016, 2, 251-265.	4.4	70
18	Diffraction tomography with a deep image prior. Optics Express, 2020, 28, 12872.	3.4	68

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19	Characterization of spatially varying aberrations for wide field-of-view microscopy. Optics Express, 2013, 21, 15131.	3.4	67
20	Flexible multimodal camera using a light field architecture. , 2009, , .		64
21	A phase space model of Fourier ptychographic microscopy. Optics Express, 2014, 22, 338.	3.4	62
22	Wide field-of-view fluorescence image deconvolution with aberration-estimation from Fourier ptychography. Biomedical Optics Express, 2016, 7, 352.	2.9	48
23	Overlapped Fourier coding for optical aberration removal. Optics Express, 2014, 22, 24062.	3.4	40
24	Learned sensing: jointly optimized microscope hardware for accurate image classification. Biomedical Optics Express, 2019, 10, 6351.	2.9	39
25	Aperture scanning Fourier ptychographic microscopy. Biomedical Optics Express, 2016, 7, 3140.	2.9	38
26	Iterative aperture mask design in phase space using a rank constraint. Optics Express, 2010, 18, 22545.	3.4	36
27	Fast and sensitive diffuse correlation spectroscopy with highly parallelized single photon detection. APL Photonics, 2021, 6, .	5.7	33
28	Deep image prior for undersampling high-speed photoacoustic microscopy. Photoacoustics, 2021, 22, 100266.	7.8	33
29	Scattering correlations of time-gated light. Optica, 2018, 5, 389.	9.3	30
30	Generation and characterization of focused helical x-ray beams. Science Advances, 2020, 6, eaax8836.	10.3	21
31	Quantitative Jones matrix imaging using vectorial Fourier ptychography. Biomedical Optics Express, 2022, 13, 1457.	2.9	19
32	Subsampled phase retrieval for temporal resolution enhancement in lensless on-chip holographic video. Biomedical Optics Express, 2017, 8, 1981.	2.9	18
33	Analysis and modeling of an ultrasound-modulated guide star to increase the depth of focusing in a turbid medium. Journal of Biomedical Optics, 2013, 18, 025004.	2.6	14
34	Modified light field architecture for reconfigurable multimode imaging. Proceedings of SPIE, 2009, , .	0.8	12
35	Markov speckle for efficient random bit generation. Optics Express, 2012, 20, 26394.	3.4	9
36	Multi-element microscope optimization by a learned sensing network with composite physical layers. Optics Letters, 2020, 45, 5684.	3.3	9

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37	The Role of Machine Learning in Cardiovascular Pathology. Canadian Journal of Cardiology, 2022, 38, 234-245.	1.7	9
38	Imaging Dynamics Beneath Turbid Media via Parallelized Singleâ€Photon Detection. Advanced Science, 2022, 9, .	11.2	9
39	Diffusion model for ultrasound-modulated light. Journal of Biomedical Optics, 2014, 19, 035005.	2.6	8
40	Increasing a microscopeâ€™s effective field of view via overlapped imaging and machine learning. Optics Express, 2022, 30, 1745.	3.4	8
41	Validity of Wigner Distribution Function for ray-based imaging. , 2011, , .		6
42	Physically secure and fully reconfigurable data storage using optical scattering. , 2015, , .		6
43	Physics-Enhanced Machine Learning for Virtual Fluorescence Microscopy. , 2021, , .		5
44	Quantized Fourier ptychography with binary images from SPAD cameras. Photonics Research, 2021, 9, 1958.	7.0	4
45	Modeling Extensions of Fourier Ptychographic Microscopy. Microscopy and Microanalysis, 2014, 20, 370-371.	0.4	3
46	Transient Motion Classification Through Turbid Volumes via Parallelized Single-Photon Detection and Deep Contrastive Embedding. Frontiers in Neuroscience, 0, 16, .	2.8	3
47	Introduction to Fourier Ptychography: Part I. Microscopy Today, 2022, 30, 36-41.	0.3	2
48	Pupil plane multiplexing for multi-domain imaging sensors. Proceedings of SPIE, 2008, , .	0.8	1
49	Optical resolution imaging in the diffusive regime with time-reversal of variance-encoded light (TROVE). , 2013, , .		1
50	Secure Storage of Cryptographic Keys within Random Volumetric Materials. , 2013, , .		1
51	Speckle contrast diffuse correlation spectroscopy with parallelized single photon detection. , 2022, , .		1
52	A model for ultrasound modulated light in a turbid medium. Proceedings of SPIE, 2014, , .	0.8	0
53	Re-designing the camera for computational photography. SPIE Newsroom, 0, , .	0.1	0