Roarke Horstmeyer

List of Publications by Year
in descending order

53 papers	4,473 citations	186265 28 h-index	243625 44 g-index
55 all docs	55 docs citations	55 times ranked	2905 citing authors

#	Article	IF	Citations
1	The Role of Machine Learning in Cardiovascular Pathology. Canadian Journal of Cardiology, 2022, 38, 234-245.	1.7	9
2	Increasing a microscopeâ€™s effective field of view via overlapped imaging and machine learning. Optics Express, 2022, 30, 1745.	3.4	8
3	Quantitative Jones matrix imaging using vectorial Fourier ptychography. Biomedical Optics Express, 2022, 13, 1457.	2.9	19
4	Introduction to Fourier Ptychography: Part I. Microscopy Today, 2022, 30, 36-41.	0.3	2
5	Imaging Dynamics Beneath Turbid Media via Parallelized Singleâ€Photon Detection. Advanced Science, 2022, 9, .	11.2	9
6	Speckle contrast diffuse correlation spectroscopy with parallelized single photon detection. , 2022, , .		1
7	Reconstructing Undersampled Photoacoustic Microscopy Images Using Deep Learning. IEEE Transactions on Medical Imaging, 2021, 40, 562-570.	8.9	71
8	Fast and sensitive diffuse correlation spectroscopy with highly parallelized single photon detection. APL Photonics, 2021, 6, .	5.7	33
9	Deep image prior for undersampling high-speed photoacoustic microscopy. Photoacoustics, 2021, 22, 100266.	7.8	33
10	Quantized Fourier ptychography with binary images from SPAD cameras. Photonics Research, 2021, 9, 1958.	7.0	4
11	Physics-Enhanced Machine Learning for Virtual Fluorescence Microscopy. , 2021, , .		5
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	Generation and characterization of focused helical x-ray beams. Science Advances, 2020, 6, eaax8836.	10.3	21
14	Diffraction tomography with a deep image prior. Optics Express, 2020, 28, 12872.	3.4	68
15	Fourier ptychography: current applications and future promises. Optics Express, 2020, 28, 9603.	3.4	120
16	Multi-element microscope optimization by a learned sensing network with composite physical layers. Optics Letters, 2020, 45, 5684.	3.3	9
17	Learned sensing: jointly optimized microscope hardware for accurate image classification. Biomedical Optics Express, 2019, 10, 6351.	2.9	39
18	Scattering correlations of time-gated light. Optica, 2018, 5, 389.	9.3	30

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19	Subsampled phase retrieval for temporal resolution enhancement in lensless on-chip holographic video. Biomedical Optics Express, 2017, 8, 1981.	2.9	18
20	Generalized optical memory effect. Optica, 2017, 4, 886.	9.3	153
21	Diffraction tomography with Fourier ptychography. Optica, 2016, 3, 827.	9.3	193
22	Aperture scanning Fourier ptychographic microscopy. Biomedical Optics Express, 2016, 7, 3140.	2.9	38
23	Toward Long-Distance Subdiffraction Imaging Using Coherent Camera Arrays. IEEE Transactions on Computational Imaging, 2016, 2, 251-265.	4.4	70
24	Wide field-of-view fluorescence image deconvolution with aberration-estimation from Fourier ptychography. Biomedical Optics Express, 2016, 7, 352.	2.9	48
25	Standardizing the resolution claims for coherent microscopy. Nature Photonics, 2016, 10, 68-71.	31.4	94
26	Translation correlations in anisotropically scattering media. Nature Physics, 2015, 11, 684-689.	16.7	156
27	Solving ptychography with a convex relaxation. New Journal of Physics, 2015, 17, 053044.	2.9	73
28	High numerical aperture Fourier ptychography: principle, implementation and characterization. Optics Express, 2015, 23, 3472.	3.4	151
29	Physically secure and fully reconfigurable data storage using optical scattering. , 2015, , .		6
30	Guidestar-assisted wavefront-shaping methods for focusing light into biological tissue. Nature Photonics, 2015, 9, 563-571.	31.4	451
31	Digital pathology with Fourier ptychography. Computerized Medical Imaging and Graphics, 2015, 42, 38-43.	5.8	76
32	Overlapped Fourier coding for optical aberration removal. Optics Express, 2014, 22, 24062.	3.4	40
33	Aperture-scanning Fourier ptychography for 3D refocusing and super-resolution macroscopic imaging. Optics Express, 2014, 22, 13586.	3.4	166
34	A phase space model of Fourier ptychographic microscopy. Optics Express, 2014, 22, 338.	3.4	62
35	A model for ultrasound modulated light in a turbid medium. Proceedings of SPIE, 2014, , .	0.8	0
36	Diffusion model for ultrasound-modulated light. Journal of Biomedical Optics, 2014, 19, 035005.	2.6	8

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37	Modeling Extensions of Fourier Ptychographic Microscopy. Microscopy and Microanalysis, 2014, 20, 370-371.	0.4	3
38	Wide-field, high-resolution Fourier ptychographic microscopy. Nature Photonics, 2013, 7, 739-745.	31.4	1,286
39	Speckle-scale focusing in the diffusive regime with time reversal of variance-encoded light (TROVE). Nature Photonics, 2013, 7, 300-305.	31.4	209
40	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
41	Characterization of spatially varying aberrations for wide field-of-view microscopy. Optics Express, 2013, 21, 15131.	3.4	67
42	Physical key-protected one-time pad. Scientific Reports, 2013, 3, 3543.	3.3	89
43	Quantitative phase imaging via Fourier ptychographic microscopy. Optics Letters, 2013, 38, 4845.	3.3	289
44	Optical resolution imaging in the diffusive regime with time-reversal of variance-encoded light (TROVE). , 2013, , .		1
45	Secure Storage of Cryptographic Keys within Random Volumetric Materials. , 2013, , .		1
46	Markov speckle for efficient random bit generation. Optics Express, 2012, 20, 26394.	3.4	9
47	Validity of Wigner Distribution Function for ray-based imaging. , 2011, , .		6
48	Iterative aperture mask design in phase space using a rank constraint. Optics Express, 2010, 18, 22545.	3.4	36
49	Modified light field architecture for reconfigurable multimode imaging. Proceedings of SPIE, 2009, , .	0.8	12
50	Flexible multimodal camera using a light field architecture. , 2009, , .		64
51	Pupil plane multiplexing for multi-domain imaging sensors. Proceedings of SPIE, 2008, , .	0.8	1
52	Re-designing the camera for computational photography. SPIE Newsroom, 0, , .	0.1	0
53	Transient Motion Classification Through Turbid Volumes via Parallelized Single-Photon Detection and Deep Contrastive Embedding. Frontiers in Neuroscience, 0, 16, .	2.8	3