

Roarke Horstmeyer

List of Publications by Year in descending order

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53
papers

4,473
citations

212478

28
h-index

274796

44
g-index

55
all docs

55
docs citations

55
times ranked

3421
citing authors

#	ARTICLE	IF	CITATIONS
1	The Role of Machine Learning in Cardiovascular Pathology. Canadian Journal of Cardiology, 2022, 38, 234-245.	0.8	9
2	Increasing a microscope's effective field of view via overlapped imaging and machine learning. Optics Express, 2022, 30, 1745.	1.7	8
3	Quantitative Jones matrix imaging using vectorial Fourier ptychography. Biomedical Optics Express, 2022, 13, 1457.	1.5	19
4	Introduction to Fourier Ptychography: Part I. Microscopy Today, 2022, 30, 36-41.	0.2	2
5	Imaging Dynamics Beneath Turbid Media via Parallelized Single-Photon Detection. Advanced Science, 2022, 9, .	5.6	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.	5.4	71
8	Fast and sensitive diffuse correlation spectroscopy with highly parallelized single photon detection. APL Photonics, 2021, 6, .	3.0	33
9	Deep image prior for undersampling high-speed photoacoustic microscopy. Photoacoustics, 2021, 22, 100266.	4.4	33
10	Quantized Fourier ptychography with binary images from SPAD cameras. Photonics Research, 2021, 9, 1958.	3.4	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.	5.6	90
13	Generation and characterization of focused helical x-ray beams. Science Advances, 2020, 6, eaax8836.	4.7	21
14	Diffraction tomography with a deep image prior. Optics Express, 2020, 28, 12872.	1.7	68
15	Fourier ptychography: current applications and future promises. Optics Express, 2020, 28, 9603.	1.7	120
16	Multi-element microscope optimization by a learned sensing network with composite physical layers. Optics Letters, 2020, 45, 5684.	1.7	9
17	Learned sensing: jointly optimized microscope hardware for accurate image classification. Biomedical Optics Express, 2019, 10, 6351.	1.5	39
18	Scattering correlations of time-gated light. Optica, 2018, 5, 389.	4.8	30

#	ARTICLE	IF	CITATIONS
19	Subsampled phase retrieval for temporal resolution enhancement in lensless on-chip holographic video. <i>Biomedical Optics Express</i> , 2017, 8, 1981.	1.5	18
20	Generalized optical memory effect. <i>Optica</i> , 2017, 4, 886.	4.8	153
21	Diffraction tomography with Fourier ptychography. <i>Optica</i> , 2016, 3, 827.	4.8	193
22	Aperture scanning Fourier ptychographic microscopy. <i>Biomedical Optics Express</i> , 2016, 7, 3140.	1.5	38
23	Toward Long-Distance Subdiffraction Imaging Using Coherent Camera Arrays. <i>IEEE Transactions on Computational Imaging</i> , 2016, 2, 251-265.	2.6	70
24	Wide field-of-view fluorescence image deconvolution with aberration-estimation from Fourier ptychography. <i>Biomedical Optics Express</i> , 2016, 7, 352.	1.5	48
25	Standardizing the resolution claims for coherent microscopy. <i>Nature Photonics</i> , 2016, 10, 68-71.	15.6	94
26	Translation correlations in anisotropically scattering media. <i>Nature Physics</i> , 2015, 11, 684-689.	6.5	156
27	Solving ptychography with a convex relaxation. <i>New Journal of Physics</i> , 2015, 17, 053044.	1.2	73
28	High numerical aperture Fourier ptychography: principle, implementation and characterization. <i>Optics Express</i> , 2015, 23, 3472.	1.7	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. <i>Nature Photonics</i> , 2015, 9, 563-571.	15.6	451
31	Digital pathology with Fourier ptychography. <i>Computerized Medical Imaging and Graphics</i> , 2015, 42, 38-43.	3.5	76
32	Overlapped Fourier coding for optical aberration removal. <i>Optics Express</i> , 2014, 22, 24062.	1.7	40
33	Aperture-scanning Fourier ptychography for 3D refocusing and super-resolution macroscopic imaging. <i>Optics Express</i> , 2014, 22, 13586.	1.7	166
34	A phase space model of Fourier ptychographic microscopy. <i>Optics Express</i> , 2014, 22, 338.	1.7	62
35	A model for ultrasound modulated light in a turbid medium. <i>Proceedings of SPIE</i> , 2014, , .	0.8	0
36	Diffusion model for ultrasound-modulated light. <i>Journal of Biomedical Optics</i> , 2014, 19, 035005.	1.4	8

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37	Modeling Extensions of Fourier Ptychographic Microscopy. <i>Microscopy and Microanalysis</i> , 2014, 20, 370-371.	0.2	3
38	Wide-field, high-resolution Fourier ptychographic microscopy. <i>Nature Photonics</i> , 2013, 7, 739-745.	15.6	1,286
39	Speckle-scale focusing in the diffusive regime with time reversal of variance-encoded light (TROVE). <i>Nature Photonics</i> , 2013, 7, 300-305.	15.6	209
40	Analysis and modeling of an ultrasound-modulated guide star to increase the depth of focusing in a turbid medium. <i>Journal of Biomedical Optics</i> , 2013, 18, 025004.	1.4	14
41	Characterization of spatially varying aberrations for wide field-of-view microscopy. <i>Optics Express</i> , 2013, 21, 15131.	1.7	67
42	Physical key-protected one-time pad. <i>Scientific Reports</i> , 2013, 3, 3543.	1.6	89
43	Quantitative phase imaging via Fourier ptychographic microscopy. <i>Optics Letters</i> , 2013, 38, 4845.	1.7	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. <i>Optics Express</i> , 2012, 20, 26394.	1.7	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. <i>Optics Express</i> , 2010, 18, 22545.	1.7	36
49	Modified light field architecture for reconfigurable multimode imaging. <i>Proceedings of SPIE</i> , 2009, , .	0.8	12
50	Flexible multimodal camera using a light field architecture. , 2009, , .		64
51	Pupil plane multiplexing for multi-domain imaging sensors. <i>Proceedings of SPIE</i> , 2008, , .	0.8	1
52	Re-designing the camera for computational photography. <i>SPIE Newsroom</i> , 0, , .	0.1	0
53	Transient Motion Classification Through Turbid Volumes via Parallelized Single-Photon Detection and Deep Contrastive Embedding. <i>Frontiers in Neuroscience</i> , 0, 16, .	1.4	3