Hongda Wang

List of Publications by Year in descending order

36 papers	2,336 citations	567281 15 h-index	839539 18 g-index
37 all docs	37 docs citations	37 times ranked	2737 citing authors

#	Article	IF	Citations
1	Deep learning enables cross-modality super-resolution in fluorescence microscopy. Nature Methods, 2019, 16, 103-110.	19.0	545
2	Deep learning microscopy. Optica, 2017, 4, 1437.	9.3	475
3	Virtual histological staining of unlabelled tissue-autofluorescence images via deep learning. Nature Biomedical Engineering, 2019, 3, 466-477.	22.5	397
4	Three-dimensional virtual refocusing of fluorescence microscopy images using deep learning. Nature Methods, 2019, 16, 1323-1331.	19.0	172
5	Deep Learning Enhanced Mobile-Phone Microscopy. ACS Photonics, 2018, 5, 2354-2364.	6.6	142
6	Edge sparsity criterion for robust holographic autofocusing. Optics Letters, 2017, 42, 3824.	3.3	122
7	Early detection and classification of live bacteria using time-lapse coherent imaging and deep learning. Light: Science and Applications, 2020, 9, 118.	16.6	93
8	Sparsity-based multi-height phase recovery in holographic microscopy. Scientific Reports, 2016, 6, 37862.	3.3	81
9	Label-Free Bioaerosol Sensing Using Mobile Microscopy and Deep Learning. ACS Photonics, 2018, 5, 4617-4627.	6.6	59
10	Motility-based label-free detection of parasites in bodily fluids using holographic speckle analysis and deep learning. Light: Science and Applications, 2018, 7, 108.	16.6	45
11	Deep Learning-Based Holographic Polarization Microscopy. ACS Photonics, 2020, 7, 3023-3034.	6.6	41
12	Biopsy-free in vivo virtual histology of skin using deep learning. Light: Science and Applications, 2021, 10, 233.	16.6	36
13	Computational out-of-focus imaging increases the spaceâ€“bandwidth product in lens-based coherent microscopy. Optica, 2016, 3, 1422.	9.3	32
14	3D imaging of optically cleared tissue using a simplified CLARITY method and on-chip microscopy. Science Advances, 2017, 3, e1700553.	10.3	29
15	Pathological crystal imaging with singleâ€shot computational polarized light microscopy. Journal of Biophotonics, 2020, 13, e201960036.	2.3	23
16	Deep-Learning-Based Virtual Refocusing of Images Using an Engineered Point-Spread Function. ACS Photonics, 2021, 8, 2174-2182.	6.6	15
17	Deep Learning Microscopy: Enhancing Resolution, Field-of-View and Depth-of-Field of Optical Microscopy Images Using Neural Networks. , 2018, , .		5
18	A robust holographic autofocusing criterion based on edge sparsity: Comparison of Gini index and Tamura coefficient for holographic autofocusing based on the edge sparsity of the complex optical wavefront. , 2018, , .		5

#	Article	IF	Citations
19	Cross-Modality Deep Learning Achieves Super-Resolution in Fluorescence Microscopy. , 2019, , .		4
20	Deep Learning-Enabled Detection and Classification of Bacterial Colonies Using a Thin-Film Transistor (TFT) Image Sensor. ACS Photonics, 2022, 9, 2455-2466.	6.6	4
21	Robust Holographic Autofocusing Based on Edge Sparsity. , 2018, , .		2
22	Deep Learning-enabled Coherent Imaging Achieves Early Detection and Classification of Bacteria in Water Samples. , 2021, , .		1
23	3D on-chip microscopy of optically cleared tissue. , 2018, , .		1
24	Deep Learning to Refocus 3D Images. Optics and Photonics News, 2020, 31, 57.	0.5	1
25	Deep-Z: 3D Virtual Refocusing of Fluorescence Images Using Deep Learning. , 2020, , .		1
26	Super-resolution through out-of-focus imaging in lens-based microscopy (Conference Presentation). , 2017, , .		0
27	High resolution computational on-chip imaging of biological samples using sparsity constraint (Conference Presentation). , 2017, , .		0
28	Pixel Super-Resolution in Coherent Microscopy Systems Through Out-of-Focus Imaging. , 2017, , .		0
29	Generative Adversarial Networks Enable Cross-Modality Super-Resolution in Fluorescence Microscopy. Microscopy and Microanalysis, 2019, 25, 1228-1229.	0.4	0
30	Deep-learning-enabled Holographic Polarization Microscopy. , 2021, , .		0
31	Sparsity-based On-chip Holographic Microscopy. , 2017, , .		0
32	Holographic 3D Microscopy of Optically Cleared Tissue. , 2017, , .		0
33	Label-free Bio-aerosol Sensing Using On-Chip Holographic Microscopy and Deep Learning. , 2019, , .		0
34	High-Throughput and Label-Free Detection of Motile Parasites in Bodily Fluids Using Lensless Time-Resolved Speckle Imaging. , 2019, , .		0
35	Deep Learning-based Virtual Refocusing of Fluorescence Microscopy Images for Neuron Imaging in 3D. , 2020, , .		0
36	Deep learning-based super-resolution and image transformation into structured illumination microscopy. , 2020, , .		0