Joshua C Vaughan

List of Publications by Year
in descending order

83	6,106	136950 32	149698 56
papers	citations	h-index	g-index

91	91	91	7641
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Evaluation of fluorophores for optimal performance in localization-based super-resolution imaging. Nature Methods, 2011, 8, 1027-1036.	19.0	1,198
2	Fourier phase microscopy for investigation of biological structures and dynamics. Optics Letters, 2004, 29, 2503.	3.3	442
3	Super-resolution fluorescence imaging of organelles in live cells with photoswitchable membrane probes. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13978-13983.	7.1	439
4	Isotropic three-dimensional super-resolution imaging with a self-bending point spread function. Nature Photonics, 2014, 8, 302-306.	31.4	416
5	Expansion microscopy with conventional antibodies and fluorescent proteins. Nature Methods, 2016, 13, 485-488.	19.0	363
6	De novo design of a fluorescence-activating Î²-barrel. Nature, 2018, 561, 485-491.	27.8	269
7	Spatiotemporal Coherent Control of Lattice Vibrational Waves. Science, 2003, 299, 374-377.	12.6	236
8	Switchable Fluorophores for Single-Molecule Localization Microscopy. Chemical Reviews, 2018, 118, 9412-9454.	47.7	223
9	Ultrabright photoactivatable fluorophores created by reductive caging. Nature Methods, 2012, 9, 1181-1184.	19.0	201
10	Terahertz Polaritonics. Annual Review of Materials Research, 2007, 37, 317-350.	9.3	147
11	Multi-immersion open-top light-sheet microscope for high-throughput imaging of cleared tissues. Nature Communications, 2019, 10, 2781.	12.8	135
12	Phosphine Quenching of Cyanine Dyes as a Versatile Tool for Fluorescence Microscopy. Journal of the American Chemical Society, 2013, 135, 1197-1200.	13.7	124
13	Hybrid Structured Illumination Expansion Microscopy Reveals Microbial Cytoskeleton Organization. ACS Nano, 2017, 11, 12677-12686.	14.6	120
14	Twinkle, twinkle little star: Photoswitchable fluorophores for superâ€resolution imaging. FEBS Letters, 2014, 588, 3603-3612.	2.8	117
15	Diffraction-based femtosecond pulse shaping with a two-dimensional spatial light modulator. Optics Letters, 2005, 30, 323.	3.3	112
16	A model for the generation and interconversion of ER morphologies. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5243-51.	7.1	112
17	Imaging nanobubble nucleation and hydrogen spillover during electrocatalytic water splitting. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5878-5883.	7.1	108
18	Coherently Controlled Ultrafast Four-Wave Mixing Spectroscopy. Journal of Physical Chemistry A, 2007, 111, 4873-4883.	2.5	85

#	Article	IF	Citations
19	Analysis of replica pulses in femtosecond pulse shaping with pixelated devices. Optics Express, 2006, 14, 1314.	3.4	71
20	Reducing Vibration by Digital Filtering and Input Shaping. IEEE Transactions on Control Systems Technology, 2011, 19, 1410-1420.	5.2	71
21	Multidimensional control of femtosecond pulses by use of a programmable liquid-crystal matrix. Optics Letters, 2002, 27, 652.	3.3	69
22	Feature-rich covalent stains for super-resolution and cleared tissue fluorescence microscopy. Science Advances, 2020, 6, eaba4542.	10.3	60
23	Degenerate four-wave mixing spectroscopy based on two-dimensional femtosecond pulse shaping. Optics Letters, 2004, 29, 2052.	3.3	51
24	Rapid pathology of lumpectomy margins with open-top light-sheet (OTLS) microscopy. Biomedical Optics Express, 2019, 10, 1257.	2.9	51
25	Single-Molecule Electrochemistry on a Porous Silica-Coated Electrode. Journal of the American Chemical Society, 2017, 139, 2964-2971.	13.7	50
26	Automated two-dimensional femtosecond pulse shaping. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 2489.	2.1	48
27	Microtubule Acetylation Is Required for Mechanosensation in Drosophila. Cell Reports, 2018, 25, 1051-1065.e6.	6.4	47
28	Superresolution imaging of Drosophila tissues using expansion microscopy. Molecular Biology of the Cell, 2018, 29, 1413-1421.	2.1	43
29	Dual lineage tracing shows that glomerular parietal epithelial cells can transdifferentiate toward theÂadult podocyte fate. Kidney International, 2019, 96, 597-611.	5.2	42
30	Prostate Cancer Risk Stratification via Nondestructive 3D Pathology with Deep Learningâ€“Assisted Gland Analysis. Cancer Research, 2022, 82, 334-345.	0.9	42
31	Rapid Actin-Dependent Viral Motility in Live Cells. Biophysical Journal, 2009, 97, 1647-1656.	0.5	41
32	Microscopy with ultraviolet surface excitation for wide-area pathology of breast surgical margins. Journal of Biomedical Optics, 2019, 24, 1.	2.6	40
33	A conserved morphogenetic mechanism for epidermal ensheathment of nociceptive sensory neurites. ELife, 2019, 8, .	6.0	39
34	The tetrameric kinesin Kif25 suppresses pre-mitotic centrosome separation to establish proper spindleÂorientation. Nature Cell Biology, 2017, 19, 384-390.	10.3	35
35	Point by Point: An Introductory Guide to Sample Preparation for Singleâ€Molecule, Superâ€Resolution Fluorescence Microscopy. Current Protocols in Chemical Biology, 2015, 7, 103-120.	1.7	33
36	Volumetric, Nanoscale Optical Imaging of Mouse and Human Kidney via Expansion Microscopy. Scientific Reports, 2018, 8, 10396.	3.3	31

#	Article	IF	Citations
37	Incorporation of sensing modalities into de novo designed fluorescence-activating proteins. Nature Communications, 2021, 12, 856.	12.8	31
38	Podocyte Aging: Why and How Getting Old Matters. Journal of the American Society of Nephrology: JASN, 2021, 32, 2697-2713.	6.1	28
39	New fluorescent probes for super-resolution imaging. Nature Biotechnology, 2011, 29, 880-881.	17.5	27
40	A study of crane operator performance comparing PD-control and input shaping. , 2011, , .		24
41	Automated spatiotemporal diffraction of ultrashort laser pulses. Optics Letters, 2003, 28, 2408.	3.3	23
42	Typesetting of terahertz waveforms. Optics Letters, 2004, 29, 1802.	3.3	22
43	Advantages of using command shaping over feedback for crane control. , 2010, , .		19
44	Extended-Depth 3D Super-Resolution Imaging Using Probe-Refresh STORM. Biophysical Journal, 2018, 114, 1980-1987.	0.5	19
45	Tunable, division-independent control of gene activation timing by a polycomb switch. Cell Reports, 2021, 34, 108888.	6.4	19
46	Multiplexed single-cell profiling of chromatin states at genomic loci by expansion microscopy. Nucleic Acids Research, 2021, 49, e82-e82.	14.5	18
47	Multi-input shaping control for multi-hoist cranes. , 2013, , .		16
48	Using mechatronics to teach mechanical design and technical communication. Mechatronics, 2008, 18, 179-186.	3.3	14
49	Input shapers for reducing overshoot in human-operated flexible systems. , 2009, , .		13
50	Performance comparison of robust negative input shapers. , 2008, , .		11
51	Versatile, do-it-yourself, low-cost spinning disk confocal microscope. Biomedical Optics Express, 2022, 13, 1102.	2.9	11
52	Fluorescent labeling of abundant reactive entities (FLARE) for cleared-tissue and super-resolution microscopy. Nature Protocols, 2022, 17, 819-846.	12.0	9
53	Intrinsically disordered peptides enhance regenerative capacities of bone composite xenografts. Materials Today, 2022, 52, 63-79.	14.2	9
54	Multiresolution nondestructive 3D pathology of whole lymph nodes for breast cancer staging. Journal of Biomedical Optics, 2022, 27, .	2.6	9

#	Article	IF	Citations
55	Isotropic 3D Super Resolution Imaging with Self-Bending Point Spread Function. Biophysical Journal, 2013, 104, 668a.	0.5	7
56	Command shaping of a boom crane subject to nonzero initial conditions. , 2017, , .		7
57	Performance Comparison of Robust Input Shapers. , 2007, , .		6
58	Reducing vibration and providing robustness with multi-input shapers. , 2009, , .		6
59	Use of Cranes in System Dynamics and Controls Education. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 9099-9104.	0.4	5
60	The Giardia ventrolateral flange is a lamellar membrane protrusion that supports attachment. PLoS Pathogens, 2022, 18, e1010496.	4.7	5
61	Use of design competitions in mechatronics education. , 2009, , .		4
62	Oscillation suppressing for an energy efficient bridge crane using input shaping. , 2013, , .		4
63	Initial Experiments on the Control of a Mobile Tower Crane. , 2007, , 1861.		3
64	Suppression of cable suspended parallel manipulator vibration utilizing input shaping. , 2017, , .		3
65	Terahertz amplification in high-dielectric materials. Springer Series in Chemical Physics, 2007, , 802-804.	0.2	3
66	Optimal input shaping filters for non-zero initial states. , 2009, , .		2
67	Spatiotemporal femtosecond pulse shaping using a MEMS-based micromirror SLM. Springer Series in Chemical Physics, 2007, , 184-186.	0.2	2
68	Degenerate four-wave mixing spectroscopy based on two dimensional pulse shaping. Springer Series in Chemical Physics, 2005, , 569-571.	0.2	1
69	Podocyte Aging: Why and How Getting Old Matters. Journal of the American Society of Nephrology: JASN, 2021, , ASN.2021-05-0614.	6.1	1
70	Typesetting THz Waveforms. Springer Series in Chemical Physics, 2005, , 717-719.	0.2	0
71	Spatiotemporal femtosecond pulse shaping using a MEMS-based micromirror SLM. , 2006, , MH2.		0
72	Terahertz polaritonics: High-field THz coherent control and spectroscopy. , 2006, , .		0

#	Article	IF	Citations
73	Reductive Caging enables Ultra-Bright Photoactivatable Fluorophores for Superresolution Imaging. Biophysical Journal, 2013, 104, 534a.	0.5	0
74	Modeling and control of rocking in cable-riding systems. , 2013, , .		0
75	Super-resolution Microscopy Made Simple. , 2017, , .		0
76	Reduction of Residual Vibration in Displacement-Amplified Micro-Electromagnetic Actuators with Non-linear Dynamics Using Input Shaping. , 2018, , .		0
77	Simple Chemical Stains for Feature-Rich Super-Resolution and Cleared-Tissue Microscopy. Microscopy and Microanalysis, 2019, 25, 1202-1203.	0.4	0
78	PHONON-POLARITONS: CONTROLLED PROPAGATION AND AMPLIFICATION. , 2002, , .		0
79	Two-dimensional Arbitrary THz Waveform Generation and Integrated Waveguide Propagation. , 2003, , .		0
80	Coherent Control Over Collective Polariton Excitations: The Dawn of Polaritonics. Springer Series in Chemical Physics, 2003, , 541-545.	0.2	0
81	Coherently Controlled Multidimensional Optical Spectroscopy. , 2006, , .		0
82	Coherently Controlled Multidimensional Optical Spectroscopy. Springer Series in Chemical Physics, 2007, , 371-373.	0.2	0
83	THz Polaritonics: Shaped Waveforms, Large Amplitudes and Linear and Nonlinear Spectroscopy. , 2007, , .		0