Dylan M Owen

List of Publications by Year
in descending order

87 papers	5,059 citations	101496 36 h-index	98753 67 g-index
94 all docs	94 docs citations	94 times ranked	6778 citing authors

#	Article	IF	Citations
1	Fast live-cell conventional fluorophore nanoscopy with ImageJ through super-resolution radial fluctuations. Nature Communications, 2016, 7, 12471.	5.8	468
2	Quantitative imaging of membrane lipid order in cells and organisms. Nature Protocols, 2012, 7, 24-35.	5.5	364
3	Pre-existing clusters of the adaptor Lat do not participate in early T cell signaling events. Nature Immunology, 2011, 12, 655-662.	7.0	302
4	PALM imaging and cluster analysis of protein heterogeneity at the cell surface. Journal of Biophotonics, 2010, 3, 446-454.	1.1	248
5	Sub-resolution lipid domains exist in the plasma membrane and regulate protein diffusion and distribution. Nature Communications, 2012, 3, 1256.	5.8	223
6	Conformational states of the kinase Lck regulate clustering in early T cell signaling. Nature Immunology, 2013, 14, 82-89.	7.0	206
7	Differential effects of lipids and lyso-lipids on the mechanosensitivity of the mechanosensitive channels MscL and MscS. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8770-8775.	3.3	170
8	The lipid raft hypothesis revisited â€“ New insights on raft composition and function from superâ€resolution fluorescence microscopy. BioEssays, 2012, 34, 739-747.	1.2	150
9	Turning single-molecule localization microscopy into a quantitative bioanalytical tool. Nature Protocols, 2017, 12, 453-460.	5.5	149
10	Fluorescence Lifetime Imaging Provides Enhanced Contrast when Imaging the Phase-Sensitive Dye di-4-ANEPPDHQ in Model Membranes and Live Cells. Biophysical Journal, 2006, 90, L80-L82.	0.2	141
11	Quantitative Microscopy: Protein Dynamics and Membrane Organisation. Traffic, 2009, 10, 962-971.	1.3	132
12	Bayesian cluster identification in single-molecule localization microscopy data. Nature Methods, 2015, 12, 1072-1076.	9.0	124
13	Dynamics of Subsynaptic Vesicles and Surface Microclusters at the Immunological Synapse. Science Signaling, 2010, 3, ra36.	1.6	120
14	Platelet actin nodules are podosome-like structures dependent on Wiskottâ€“Aldrich syndrome protein and ARP2/3 complex. Nature Communications, 2015, 6, 7254.	5.8	86
15	Galectin-9 binds IgM-BCR to regulate B cell signaling. Nature Communications, 2018, 9, 3288.	5.8	85
16	The Ternary Rab27a-Myrip-Myosin VIIa Complex Regulates Melanosome Motility in the Retinal Pigment Epithelium. Traffic, 2007, 8, 486-499.	1.3	81
17	High plasma membrane lipid order imaged at the immunological synapse periphery in live T cells. Molecular Membrane Biology, 2010, 27, 178-189.	2.0	73
18	Primary Human CD4+ T Cells Have Diverse Levels of Membrane Lipid Order That Correlate with Their Function. Journal of Immunology, 2011, 186, 3505-3516.	0.4	71

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19	Method for co-cluster analysis in multichannel single-molecule localisation data. Histochemistry and Cell Biology, 2014, 141, 605-612.	0.8	71
20	Syk and Src Family Kinases Regulate C-type Lectin Receptor 2 (CLEC-2)-mediated Clustering of Podoplanin and Platelet Adhesion to Lymphatic Endothelial Cells. Journal of Biological Chemistry, 2014, 289, 35695-35710.	1.6	70
21	Superresolution Microscopy Reveals Nanometer-Scale Reorganization of Inhibitory Natural Killer Cell Receptors upon Activation of NKG2D. Science Signaling, 2013, 6, ra62.	1.6	69
22	Nanoscale Structural Plasticity of the Active Zone Matrix Modulates Presynaptic Function. Cell Reports, 2017, 18, 2715-2728.	2.9	69
23	Excitation-resolved hyperspectral fluorescence lifetime imaging using a UV-extended supercontinuum source. Optics Letters, 2007, 32, 3408.	1.7	67
24	Characterization of a New Series of Fluorescent Probes for Imaging Membrane Order. PLoS ONE, 2013, 8, e52960.	1.1	65
25	High-Speed High-Resolution Imaging of Intercellular Immune Synapses Using Optical Tweezers. Biophysical Journal, 2008, 95, L66-L68.	0.2	64
26	Imaging lipid domains in cell membranes: the advent of super-resolution fluorescence microscopy. Frontiers in Plant Science, 2013, 4, 503.	1.7	61
27	Enhancing Quantum Dots for Bioimaging using Advanced Surface Chemistry and Advanced Optical Microscopy: Application to Silicon Quantum Dots (SiQDs). Advanced Materials, 2015, 27, 6144-6150.	11.1	57
28	A Bayesian cluster analysis method for single-molecule localization microscopy data. Nature Protocols, 2016, 11, 2499-2514.	5.5	55
29	Machine learning for cluster analysis of localization microscopy data. Nature Communications, 2020, 11, 1493.	5.8	55
30	Live-Cell Super-resolution Reveals F-Actin and Plasma Membrane Dynamics at the T Cell Synapse. Biophysical Journal, 2017, 112, 1703-1713.	0.2	54
31	Time-Resolved Laurdan Fluorescence Reveals Insights into Membrane Viscosity and Hydration Levels. Biophysical Journal, 2018, 115, 1498-1508.	0.2	54
32	Rapid hyperspectral fluorescence lifetime imaging. Microscopy Research and Technique, 2007, 70, 481-484.	1.2	53
33	High speed unsupervised fluorescence lifetime imaging confocal multiwell plate reader for high content analysis. Journal of Biophotonics, 2008, 1, 514-521.	1.1	53
34	On the interaction of hyaluronic acid with synovial fluid lipid membranes. Physical Chemistry Chemical Physics, 2019, 21, 9845-9857.	1.3	43
35	Optical techniques for imaging membrane lipid microdomains in living cells. Seminars in Cell and Developmental Biology, 2007, 18, 591-598.	2.3	42
36	CD317/Tetherin is an organiser of membrane microdomains. Journal of Cell Science, 2013, 126, 1553-64.	1.2	40

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37	Imaging Membrane Lipid Order in Whole, Living Vertebrate Organisms. Biophysical Journal, 2010, 99, L7-L9.	0.2	39
38	Evidence for annexin <scp>A</scp>6â€dependent plasma membrane remodelling of lipid domains. British Journal of Pharmacology, 2015, 172, 1677-1690.	2.7	38
39	Superresolution imaging of the cytoplasmic phosphatase PTPN22 links integrin-mediated T cell adhesion with autoimmunity. Science Signaling, 2016, 9, ra99.	1.6	37
40	3D Bayesian cluster analysis of super-resolution data reveals LAT recruitment to the T cell synapse. Scientific Reports, 2017, 7, 4077.	1.6	36
41	A compact, multidimensional spectrofluorometer exploiting supercontinuum generation. Journal of Biophotonics, 2008, 1, 494-505.	1.1	33
42	Quantitative Analysis of Three-Dimensional Fluorescence Localization Microscopy Data. Biophysical Journal, 2013, 105, L05-L07.	0.2	31
43	Targeted subendothelial matrix oxidation by myeloperoxidase triggers myosin II-dependent de-adhesion and alters signaling in endothelial cells. Free Radical Biology and Medicine, 2012, 53, 2344-2356.	1.3	30
44	Molecular Flow Quantified beyond the Diffraction Limit by Spatiotemporal Image Correlation of Structured Illumination Microscopy Data. Biophysical Journal, 2014, 107, L21-L23.	0.2	30
45	Three-dimensional molecular mapping in a microfluidic mixing device using fluorescence lifetime imaging. Optics Letters, 2008, 33, 1887.	1.7	26
46	Optical Techniques for Imaging Membrane Domains in Live Cells (Live-Cell Palm of Protein Clustering). Methods in Enzymology, 2012, 504, 221-235.	0.4	25
47	Topographic prominence as a method for cluster identification in singleâ€molecule localisation data. Journal of Biophotonics, 2015, 8, 925-934.	1.1	25
48	Quantitative fibre analysis of single-molecule localization microscopy data. Scientific Reports, 2018, 8, 10418.	1.6	25
49	Optimized timeâ€gated generalized polarization imaging of Laurdan and diâ€4â€ANEPPDHQ for membrane order image contrast enhancement. Microscopy Research and Technique, 2010, 73, 618-622.	1.2	23
50	Bright, near infrared emitting PLGAâ€“PEG dye-doped CN-PPV nanoparticles for imaging applications. RSC Advances, 2017, 7, 15255-15264.	1.7	23
51	Improved sectioning in a slit scanning confocal microscope. Optics Letters, 2008, 33, 1813.	1.7	21
52	Dynamic organization of lymphocyte plasma membrane: lessons from advanced imaging methods. Immunology, 2010, 131, 1-8.	2.0	20
53	Laurdan and Di-4-ANEPPDHQ Influence the Properties of Lipid Membranes: A Classical Molecular Dynamics and Fluorescence Study. Journal of Physical Chemistry B, 2020, 124, 11419-11430.	1.2	20
54	Protein Kinase C Controls Vesicular Transport and Secretion of Apolipoprotein E from Primary Human Macrophages. Journal of Biological Chemistry, 2013, 288, 5186-5197.	1.6	19

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55	LXR directly regulates glycosphingolipid synthesis and affects human CD4+ T cell function. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	18
56	The structure and luminescence properties of europium(iii) triflate doped self-assembled pyromellitamide gels. New Journal of Chemistry, 2011, 35, 1466.	1.4	16
57	Correction of multiple-blinking artifacts in photoactivated localization microscopy. Nature Methods, 2022, 19, 594-602.	9.0	16
58	Hydrophobin-Encapsulated Quantum Dots. ACS Applied Materials & Interfaces, 2016, 8, 4887-4893.	4.0	15
59	Multi-color Molecular Visualization of Signaling Proteins Reveals How C-Terminal Src Kinase Nanoclusters Regulate T Cell Receptor Activation. Cell Reports, 2020, 33, 108523.	2.9	15
60	Spatio-temporal image correlation spectroscopy and super-resolution microscopy to quantify molecular dynamics in T cells. Methods, 2018, 140-141, 112-118.	1.9	13
61	Dynamic Bayesian Cluster Analysis of Liveâ€€Cell Single Molecule Localization Microscopy Datasets. Small Methods, 2018, 2, 1800008.	4.6	13
62	PRODAN differentially influences its local environment. Physical Chemistry Chemical Physics, 2018, 20, 16060-16066.	1.3	13
63	The Role of Protein and Lipid Clustering in Lymphocyte Activation. Frontiers in Immunology, 2021, 12, 600961.	2.2	13
64	Differential nanoscale organisation of LFA-1 modulates T-cell migration. Journal of Cell Science, 2020, 133, .	1.2	12
65	Three-dimensional total-internal reflection fluorescence nanoscopy with nanometric axial resolution by photometric localization of single molecules. Nature Communications, 2021, 12, 517.	5.8	12
66	Lipid order and molecular assemblies in the plasma membrane of eukaryotic cells. Biochemical Society Transactions, 2009, 37, 1056-1060.	1.6	11
67	The Nanoscale Organization of Signaling Domains at the Plasma Membrane. Current Topics in Membranes, 2015, 75, 125-165.	0.5	11
68	Quantification of fibrous spatial point patterns from single-molecule localization microscopy (SMLM) data. Bioinformatics, 2017, 33, 1703-1711.	1.8	11
69	Tropomyosin Tm5NM1 Spatially Restricts Src Kinase Activity through Perturbation of Rab11 Vesicle Trafficking. Molecular and Cellular Biology, 2014, 34, 4436-4446.	1.1	10
70	Protein clustering and spatial organization in T-cells. Biochemical Society Transactions, 2015, 43, 315-321.	1.6	10
71	Asymmetric glycerophospholipids impart distinctive biophysical properties to lipid bilayers. Biophysical Journal, 2021, 120, 1746-1754.	0.2	10
72	An agent-based model of molecular aggregation at the cell membrane. PLoS ONE, 2020, 15, e0226825.	1.1	9

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73	Cortical Actin Flow in T Cells Quantified by Spatio-temporal Image Correlation Spectroscopy of Structured Illumination Microscopy Data. Journal of Visualized Experiments, 2015, , e53749.	0.2	8
74	Discreet and distinct clustering of five model membrane proteins revealed by single molecule localization microscopy. Molecular Membrane Biology, 2015, 32, 11-18.	2.0	8
75	Membrane lipid order of subâ€synaptic T cell vesicles correlates with their dynamics and function. Traffic, 2018, 19, 29-35.	1.3	8
76	Asymmetry across the membrane. Nature Chemical Biology, 2020, 16, 605-606.	3.9	8
77	Analysis methods for interrogating spatial organisation of single molecule localisation microscopy data. International Journal of Biochemistry and Cell Biology, 2020, 123, 105749.	1.2	8
78	Fluorescence localization microscopy. Communicative and Integrative Biology, 2012, 5, 345-349.	0.6	7
79	Super-Resolution Imaging Approaches for Quantifying F-Actin in Immune Cells. Frontiers in Cell and Developmental Biology, 2021, 9, 676066.	1.8	7
80	The <scp>aPKC</scp>/Par3/Par6 Polarity Complex and Membrane Order Are Functionally Interdependent in Epithelia During Vertebrate Organogenesis. Traffic, 2016, 17, 66-79.	1.3	6
81	Toward an Axial Nanoscale Ruler for Fluorescence Microscopy. ACS Nano, 2017, 11, 11762-11767.	7.3	6
82	Chapter 4 Multidimensional fluorescence imaging. Laboratory Techniques in Biochemistry and Molecular Biology / Edited By T S Work [and] E Work, 2009, 33, 133-169.	0.2	4
83	Bridging the Nanoscopy-Immunology Gap. Frontiers in Physics, 2019, 6, .	1.0	4
84	Blinking statistics and molecular counting in direct stochastic reconstruction microscopy (dSTORM). Bioinformatics, 2021, 37, 2730-2737.	1.8	4
85	The T cell receptor displays lateral signal propagation involving non-engaged receptors. Nanoscale, 2022, 14, 3513-3526.	2.8	3
86	Quantitative Analysis of Membrane Protein Clustering from Live-Cell, Single-Molecule Super-Resolution Microscopy Data. Biophysical Journal, 2017, 112, 144a-145a.	0.2	1
87	Quantitative Measurements of Membrane Lipid Order in Yeast and Fungi. Methods in Molecular Biology, 2022, 2402, 291-298.	0.4	1