Philipp J Keller

List of Publications by Year
in descending order

67 papers	9,588 citations	76196 40 h-index	114278 63 g-index
76 all docs	76 docs citations	76 times ranked	10468 citing authors

#	Article	IF	Citations
1	Reconstruction of Zebrafish Early Embryonic Development by Scanned Light Sheet Microscopy. Science, 2008, 322, 1065-1069.	6.0	1,397
2	Whole-brain functional imaging at cellular resolution using light-sheet microscopy. Nature Methods, 2013, 10, 413-420.	9.0	1,194
3	Fast, high-contrast imaging of animal development with scanned light sheetâ€“based structured-illumination microscopy. Nature Methods, 2010, 7, 637-642.	9.0	515
4	A general method to fine-tune fluorophores for live-cell and in vivo imaging. Nature Methods, 2017, 14, 987-994.	9.0	502
5	Quantitative high-speed imaging of entire developing embryos with simultaneous multiview light-sheet microscopy. Nature Methods, 2012, 9, 755-763.	9.0	487
6	Tissue clearing and its applications inÂneuroscience. Nature Reviews Neuroscience, 2020, 21, 61-79.	4.9	350
7	In Toto Imaging and Reconstruction of Post-Implantation Mouse Development at the Single-Cell Level. Cell, 2018, 175, 859-876.e33.	13.5	348
8	Light-sheet functional imaging in fictively behaving zebrafish. Nature Methods, 2014, 11, 883-884.	9.0	294
9	Fast, accurate reconstruction of cell lineages from large-scale fluorescence microscopy data. Nature Methods, 2014, 11, 951-958.	9.0	253
10	Tandem fluorescent protein timers for in vivo analysis of protein dynamics. Nature Biotechnology, 2012, 30, 708-714.	9.4	239
11	Visualizing Whole-Brain Activity and Development at the Single-Cell Level Using Light-Sheet Microscopy. Neuron, 2015, 85, 462-483.	3.8	215
12	BigStitcher: reconstructing high-resolution image datasets of cleared and expanded samples. Nature Methods, 2019, 16, 870-874.	9.0	214
13	Adaptive light-sheet microscopy for long-term, high-resolution imaging in living organisms. Nature Biotechnology, 2016, 34, 1267-1278.	9.4	211
14	Whole-animal functional and developmental imaging with isotropic spatial resolution. Nature Methods, 2015, 12, 1171-1178.	9.0	203
15	Stochastic electrotransport selectively enhances the transport of highly electromobile molecules. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E6274-83.	3.3	195
16	Whole-central nervous system functional imaging in larval Drosophila. Nature Communications, 2015, 6, 7924.	5.8	179
17	Imaging Morphogenesis: Technological Advances and Biological Insights. Science, 2013, 340, 1234168.	6.0	168
18	Light sheet microscopy of living or cleared specimens. Current Opinion in Neurobiology, 2012, 22, 138-143.	2.0	160

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19	Quantitative in vivo imaging of entire embryos with Digital Scanned Laser Light Sheet Fluorescence Microscopy. Current Opinion in Neurobiology, 2008, 18, 624-632.	2.0	159
20	Real-Time Three-Dimensional Cell Segmentation in Large-Scale Microscopy Data of Developing Embryos. Developmental Cell, 2016, 36, 225-240.	3.1	156
21	Whole-Brain Profiling of Cells and Circuits in Mammals by Tissue Clearing and Light-Sheet Microscopy. Neuron, 2020, 106, 369-387.	3.8	145
22	Multi-view light-sheet imaging and tracking with the MaMuT software reveals the cell lineage of a direct developing arthropod limb. ELife, 2018, 7, .	2.8	134
23	Efficient processing and analysis of large-scale light-sheet microscopy data. Nature Protocols, 2015, 10, 1679-1696.	5.5	109
24	Life sciences require the third dimension. Current Opinion in Cell Biology, 2006, 18, 117-124.	2.6	99
25	Light-Sheet Microscopy and Its Potential for Understanding Developmental Processes. Annual Review of Cell and Developmental Biology, 2019, 35, 655-681.	4.0	98
26	Development of the annelid axochord: Insights into notochord evolution. Science, 2014, 345, 1365-1368.	6.0	90
27	Characterization of a common progenitor pool of the epicardium and myocardium. Science, 2021, 371, .	6.0	88
28	Histone H3K27 acetylation precedes active transcription during zebrafish zygotic genome activation as revealed by live-cell analysis. Development (Cambridge), 2019, 146, .	1.2	81
29	Spore number control and breeding in Saccharomyces cerevisiae. Journal of Cell Biology, 2005, 171, 627-640.	2.3	73
30	Single-Cell Reconstruction of Emerging Population Activity in an Entire Developing Circuit. Cell, 2019, 179, 355-372.e23.	13.5	72
31	Reconstructing embryonic development. Genesis, 2011, 49, 488-513.	0.8	70
32	Live Imaging of Whole Mouse Embryos during Gastrulation: Migration Analyses of Epiblast and Mesodermal Cells. PLoS ONE, 2013, 8, e64506.	1.1	66
33	Shedding light on the system: studying embryonic development with light sheet microscopy. Current Opinion in Genetics and Development, 2011, 21, 558-565.	1.5	65
34	Light-sheet imaging for systems neuroscience. Nature Methods, 2015, 12, 27-29.	9.0	62
35	Brain-wide circuit interrogation at the cellular level guided by online analysis of neuronal function. Nature Methods, 2018, 15, 1117-1125.	9.0	54
36	Digital Scanned Laser Light-Sheet Fluorescence Microscopy (DSLM) of Zebrafish and Drosophila Embryonic Development. Cold Spring Harbor Protocols, 2011, 2011, pdb.prot065839.	0.2	48

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37	Live imaging and quantitative analysis of gastrulation in mouse embryos using light-sheet microscopy and 3D tracking tools. Nature Protocols, 2014, 9, 575-585.	5.5	48
38	Fast and robust optical flow for time-lapse microscopy using super-voxels. Bioinformatics, 2013, 29, 373-380.	1.8	47
39	Nlcam modulates midline convergence during anterior neural plate morphogenesis. Developmental Biology, 2010, 339, 14-25.	0.9	46
40	Segregation of yeast nuclear pores. Nature, 2010, 466, E1-E1.	13.7	45
41	Direct InÂVivo Manipulation and Imaging of Calcium Transients in Neutrophils Identify a Critical Role for Leading-Edge Calcium Flux. Cell Reports, 2015, 13, 2107-2117.	2.9	45
42	Emerging Imaging and Genomic Tools for Developmental Systems Biology. Developmental Cell, 2016, 36, 597-610.	3.1	45
43	Digital Scanned Laser Light Sheet Fluorescence Microscopy. Cold Spring Harbor Protocols, 2010, 2010, pdb.top78.	0.2	40
44	Three-dimensional preparation and imaging reveal intrinsic microtubule properties. Nature Methods, 2007, 4, 843-846.	9.0	39
45	In vivo imaging of zebrafish embryogenesis. Methods, 2013, 62, 268-278.	1.9	38
46	Repulsive cues combined with physical barriers and cellâ€“cell adhesion determine progenitor cell positioning during organogenesis. Nature Communications, 2016, 7, 11288.	5.8	38
47	Metabolic Regulation of Developmental Cell Cycles and Zygotic Transcription. Current Biology, 2019, 29, 1193-1198.e5.	1.8	35
48	A practical guide to adaptive light-sheet microscopy. Nature Protocols, 2018, 13, 2462-2500.	5.5	34
49	Towards comprehensive cell lineage reconstructions in complex organisms using lightâ€sheet microscopy. Development Growth and Differentiation, 2013, 55, 563-578.	0.6	30
50	Nud1p, the yeast homolog of Centriolin, regulates spindle pole body inheritance in meiosis. EMBO Journal, 2006, 25, 3856-3868.	3.5	28
51	Evolution of Mutational Robustness in the Yeast Genome: A Link to Essential Genes and Meiotic Recombination Hotspots. PLoS Genetics, 2009, 5, e1000533.	1.5	27
52	Three-Dimensional Microtubule Behavior in Xenopus Egg Extracts Reveals Four Dynamic States and State-Dependent Elastic Properties. Biophysical Journal, 2008, 95, 1474-1486.	0.2	26
53	A computational statistics approach for estimating the spatial range of morphogen gradients. Development (Cambridge), 2011, 138, 4867-4874.	1.2	24
54	InÂvivo glucose imaging in multiple model organisms with an engineered single-wavelength sensor. Cell Reports, 2021, 35, 109284.	2.9	24

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55	Light Sheet Microscopy in Cell Biology. Methods in Molecular Biology, 2012, 931, 123-137.	0.4	23
56	The PAR complex controls the spatiotemporal dynamics of F-actin and the MTOC in directionally migrating leukocytes. Journal of Cell Science, 2014, 127, 4381-95.	1.2	19
57	Nuclear crowding and nonlinear diffusion during interkinetic nuclear migration in the zebrafish retina. ELife, 2020, 9, .	2.8	15
58	A Preferred Curvature-Based Continuum Mechanics Framework for Modeling Embryogenesis. Biophysical Journal, 2018, 114, 267-277.	0.2	13
59	Live imaging of nervous system development and function using lightâ€sheet microscopy. Molecular Reproduction and Development, 2015, 82, 605-618.	1.0	11
60	Light Sheet-Based Imaging and Analysis of Early Embryogenesis in the Fruit Fly. Methods in Molecular Biology, 2015, 1189, 79-97.	0.4	7
61	Making biology transparent. Nature Biotechnology, 2014, 32, 1104-1105.	9.4	5
62	3D Haar-like elliptical features for object classification in microscopy. , 2013, , .		3
63	Imaging far and wide. ELife, 2016, 5, .	2.8	3
64	The zebrafish digital embryo: in toto reconstruction of zebrafish early embryonic development with digital scanned laser light sheet fluorescence microscopy. , 2009, , .		1
65	Reconstructing Nervous System Development and Function with Light-Sheet Microscopy. , 2015, , .		0
66	Whole-animal imaging with high spatio-temporal resolution. Proceedings of SPIE, 2016, , .	0.8	0
67	How to Make a Worm Twitch. Biophysical Journal, 2017, 112, 1737-1738.	0.2	0