Philipp J Keller

List of Publications by Year in Descending Order

71 papers	6,689 citations	37 h-index	76 g-index
76 ext. papers	8,650 ext. citations	15.4 avg, IF	6.22 L-index

#	Paper	IF	Citations
71	Characterization of a common progenitor pool of the epicardium and myocardium. *Science*, **2021**, 371,	33.3	26
70	In vivo glucose imaging in multiple model organisms with an engineered single-wavelength sensor. *Cell Reports*, **2021**, 35, 109284	10.6	7
69	Whole-Brain Profiling of Cells and Circuits in Mammals by Tissue Clearing and Light-Sheet Microscopy. *Neuron*, **2020**, 106, 369-387	13.9	71
68	Nuclear crowding and nonlinear diffusion during interkinetic nuclear migration in the zebrafish retina. *ELife*, **2020**, 9,	8.9	8
67	Functional Imaging with Light-Sheet Microscopy **2020**, 21-54		
66	Tissue clearing and its applications in neuroscience. *Nature Reviews Neuroscience*, **2020**, 21, 61-79	13.5	178
65	Single-Cell Reconstruction of Emerging Population Activity in an Entire Developing Circuit. *Cell*, **2019**, 179, 355-372.e23	56.2	44
64	Metabolic Regulation of Developmental Cell Cycles and Zygotic Transcription. *Current Biology*, **2019**, 29, 1193-1198.e5	6.3	22
63	BigStitcher: reconstructing high-resolution image datasets of cleared and expanded samples. *Nature Methods*, **2019**, 16, 870-874	21.6	104
62	Light-Sheet Microscopy and Its Potential for Understanding Developmental Processes. *Annual Review of Cell and Developmental Biology*, **2019**, 35, 655-681	12.6	48
61	Histone H3K27 acetylation precedes active transcription during zebrafish zygotic genome activation as revealed by live-cell analysis. *Development (Cambridge)*, **2019**, 146,	6.6	32
60	A Preferred Curvature-Based Continuum Mechanics Framework for Modeling Embryogenesis. *Biophysical Journal*, **2018**, 114, 267-277	2.9	6
59	Author response: Multi-view light-sheet imaging and tracking with the MaMuT software reveals the cell lineage of a direct developing arthropod limb **2018**,		3
58	Brain-wide circuit interrogation at the cellular level guided by online analysis of neuronal function. *Nature Methods*, **2018**, 15, 1117-1125	21.6	28
57	In Toto Imaging and Reconstruction of Post-Implantation Mouse Development at the Single-Cell Level. *Cell*, **2018**, 175, 859-876.e33	56.2	205
56	A practical guide to adaptive light-sheet microscopy. *Nature Protocols*, **2018**, 13, 2462-2500	18.8	23
55	Multi-view light-sheet imaging and tracking with the MaMuT software reveals the cell lineage of a direct developing arthropod limb. *ELife*, **2018**, 7,	8.9	77

54	How to Make a Worm Twitch. *Biophysical Journal*, **2017**, 112, 1737-1738	2.9	
53	A general method to fine-tune fluorophores for live-cell and in vivo imaging. *Nature Methods*, **2017**, 14, 987-994	21.6	289
52	Repulsive cues combined with physical barriers and cell-cell adhesion determine progenitor cell positioning during organogenesis. *Nature Communications*, **2016**, 7, 11288	17.4	24
51	Adaptive light-sheet microscopy for long-term, high-resolution imaging in living organisms. *Nature Biotechnology*, **2016**, 34, 1267-1278	44.5	142
50	Emerging Imaging and Genomic Tools for Developmental Systems Biology. *Developmental Cell*, **2016**, 36, 597-610	10.2	37
49	Real-Time Three-Dimensional Cell Segmentation in Large-Scale Microscopy Data of Developing Embryos. *Developmental Cell*, **2016**, 36, 225-40	10.2	115
48	Imaging far and wide. *ELife*, **2016**, 5,	8.9	2
47	Light-sheet imaging for systems neuroscience. *Nature Methods*, **2015**, 12, 27-9	21.6	47
46	Efficient processing and analysis of large-scale light-sheet microscopy data. *Nature Protocols*, **2015**, 10, 1679-96	18.8	85
45	Whole-animal functional and developmental imaging with isotropic spatial resolution. *Nature Methods*, **2015**, 12, 1171-8	21.6	148
44	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	11.5	133
43	Whole-central nervous system functional imaging in larval Drosophila. *Nature Communications*, **2015**, 6, 7924	17.4	126
42	Live imaging of nervous system development and function using light-sheet microscopy. *Molecular Reproduction and Development*, **2015**, 82, 605-18	2.6	10
41	Direct In Vivo Manipulation and Imaging of Calcium Transients in Neutrophils Identify a Critical Role for Leading-Edge Calcium Flux. *Cell Reports*, **2015**, 13, 2107-17	10.6	37
40	Visualizing whole-brain activity and development at the single-cell level using light-sheet microscopy. *Neuron*, **2015**, 85, 462-83	13.9	159
39	Light sheet-based imaging and analysis of early embryogenesis in the fruit fly. *Methods in Molecular Biology*, **2015**, 1189, 79-97	1.4	5
38	Making biology transparent. *Nature Biotechnology*, **2014**, 32, 1104-5	44.5	4
37	Fast, accurate reconstruction of cell lineages from large-scale fluorescence microscopy data. *Nature Methods*, **2014**, 11, 951-8	21.6	200

36	Light-sheet functional imaging in fictively behaving zebrafish. *Nature Methods*, **2014**, 11, 883-4	21.6	194
35	Development of the annelid axochord: insights into notochord evolution. *Science*, **2014**, 345, 1365-8	33.3	74
34	Live imaging and quantitative analysis of gastrulation in mouse embryos using light-sheet microscopy and 3D tracking tools. *Nature Protocols*, **2014**, 9, 575-85	18.8	31
33	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	5.3	15
32	Imaging morphogenesis: technological advances and biological insights. *Science*, **2013**, 340, 1234168	33.3	128
31	In vivo imaging of zebrafish embryogenesis. *Methods*, **2013**, 62, 268-78	4.6	31
30	Whole-brain functional imaging at cellular resolution using light-sheet microscopy. *Nature Methods*, **2013**, 10, 413-20	21.6	831
29	Light sheet microscopy in cell biology. *Methods in Molecular Biology*, **2013**, 931, 123-37	1.4	19
28	Towards comprehensive cell lineage reconstructions in complex organisms using light-sheet microscopy. *Development Growth and Differentiation*, **2013**, 55, 563-78	3	24
27	Fast and robust optical flow for time-lapse microscopy using super-voxels. *Bioinformatics*, **2013**, 29, 373-80	7.2	41
26	3D Haar-like elliptical features for object classification in microscopy **2013**,		1
25	Live imaging of whole mouse embryos during gastrulation: migration analyses of epiblast and mesodermal cells. *PLoS ONE*, **2013**, 8, e64506	3.7	48
24	Quantitative high-speed imaging of entire developing embryos with simultaneous multiview light-sheet microscopy. *Nature Methods*, **2012**, 9, 755-63	21.6	368
23	Tandem fluorescent protein timers for in vivo analysis of protein dynamics. *Nature Biotechnology*, **2012**, 30, 708-14	44.5	172
22	Light sheet microscopy of living or cleared specimens. *Current Opinion in Neurobiology*, **2012**, 22, 138-43	7.6	126
21	Shedding light on the system: studying embryonic development with light sheet microscopy. *Current Opinion in Genetics and Development*, **2011**, 21, 558-65	4.9	47
20	Reconstructing embryonic development. *Genesis*, **2011**, 49, 488-513	1.9	61
19	A computational statistics approach for estimating the spatial range of morphogen gradients. *Development (Cambridge)*, **2011**, 138, 4867-74	6.6	23

18	Digital scanned laser light-sheet fluorescence microscopy (DSLM) of zebrafish and Drosophila embryonic development. *Cold Spring Harbor Protocols*, **2011**, 2011, 1235-43	1.2	40
17	Segregation of yeast nuclear pores. *Nature*, **2010**, 466, E1	50.4	37
16	Fast, high-contrast imaging of animal development with scanned light sheet-based structured-illumination microscopy. *Nature Methods*, **2010**, 7, 637-42	21.6	411
15	Digital scanned laser light sheet fluorescence microscopy. *Cold Spring Harbor Protocols*, **2010**, 2010, pdb.top78	1.2	33
14	Nlcam modulates midline convergence during anterior neural plate morphogenesis. *Developmental Biology*, **2010**, 339, 14-25	3.1	40
13	Evolution of mutational robustness in the yeast genome: a link to essential genes and meiotic recombination hotspots. *PLoS Genetics*, **2009**, 5, e1000533	6	21
12	Quantitative in vivo imaging of entire embryos with Digital Scanned Laser Light Sheet Fluorescence Microscopy. *Current Opinion in Neurobiology*, **2008**, 18, 624-32	7.6	118
11	Three-dimensional microtubule behavior in Xenopus egg extracts reveals four dynamic states and state-dependent elastic properties. *Biophysical Journal*, **2008**, 95, 1474-86	2.9	21
10	Reconstruction of zebrafish early embryonic development by scanned light sheet microscopy. *Science*, **2008**, 322, 1065-9	33.3	1075
9	Three-dimensional preparation and imaging reveal intrinsic microtubule properties. *Nature Methods*, **2007**, 4, 843-6	21.6	34
8	Life sciences require the third dimension. *Current Opinion in Cell Biology*, **2006**, 18, 117-24	9	72
7	Nud1p, the yeast homolog of Centriolin, regulates spindle pole body inheritance in meiosis. *EMBO Journal*, **2006**, 25, 3856-68	13	23
6	Spore number control and breeding in Saccharomyces cerevisiae: a key role for a self-organizing system. *Journal of Cell Biology*, **2005**, 171, 627-40	7.3	60
5	Quantitative measurements of chromatin modification dynamics during zygotic genome activation		1
4	Reconstruction of cell lineages and behaviors underlying arthropod limb outgrowth with multi-view light-sheet imaging and tracking		4
3	BigStitcher: Reconstructing high-resolution image datasets of cleared and expanded samples		12
2	Interkinetic nuclear migration in the zebra1sh retina as a diffusive process		1
1	Automated Reconstruction of Whole-Embryo Cell Lineages by Learning from Sparse Annotations		2