

Jan Huisken

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

9,394
citations

81743

39
h-index

66788

78
g-index

101
all docs

101
docs citations

101
times ranked

9755
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical Sectioning Deep Inside Live Embryos by Selective Plane Illumination Microscopy. <i>Science</i> , 2004, 305, 1007-1009.	6.0	2,103
2	Selective plane illumination microscopy techniques in developmental biology. <i>Development (Cambridge)</i> , 2009, 136, 1963-1975.	1.2	520
3	A guide to light-sheet fluorescence microscopy for multiscale imaging. <i>Nature Methods</i> , 2017, 14, 360-373.	9.0	496
4	Optogenetic Control of Cardiac Function. <i>Science</i> , 2010, 330, 971-974.	6.0	426
5	Even fluorescence excitation by multidirectional selective plane illumination microscopy (mSPIM). <i>Optics Letters</i> , 2007, 32, 2608.	1.7	398
6	Rapid 3D light-sheet microscopy with a tunable lens. <i>Optics Express</i> , 2013, 21, 21010.	1.7	348
7	OpenSPIM: an open-access light-sheet microscopy platform. <i>Nature Methods</i> , 2013, 10, 598-599.	9.0	312
8	Arterial-Venous Segregation by Selective Cell Sprouting: An Alternative Mode of Blood Vessel Formation. <i>Science</i> , 2009, 326, 294-298.	6.0	302
9	Genome-wide RNA Tomography in the Zebrafish Embryo. <i>Cell</i> , 2014, 159, 662-675.	13.5	248
10	Genetic and Physiologic Dissection of the Vertebrate Cardiac Conduction System. <i>PLoS Biology</i> , 2008, 6, e109.	2.6	233
11	High-resolution reconstruction of the beating zebrafish heart. <i>Nature Methods</i> , 2014, 11, 919-922.	9.0	226
12	Multilayer mounting enables long-term imaging of zebrafish development in a light sheet microscope. <i>Development (Cambridge)</i> , 2012, 139, 3242-3247.	1.2	225
13	Zebrafish model for human long QT syndrome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 11316-11321.	3.3	215
14	Multi-view image fusion improves resolution in three-dimensional microscopy. <i>Optics Express</i> , 2007, 15, 8029.	1.7	205
15	A dual role for ErbB2 signaling in cardiac trabeculation. <i>Development (Cambridge)</i> , 2010, 137, 3867-3875.	1.2	195
16	Guide to light-sheet microscopy for adventurous biologists. <i>Nature Methods</i> , 2015, 12, 30-34.	9.0	191
17	High-speed imaging of developing heart valves reveals interplay of morphogenesis and function. <i>Development (Cambridge)</i> , 2008, 135, 1179-1187.	1.2	188
18	High-speed panoramic light-sheet microscopy reveals global endodermal cell dynamics. <i>Nature Communications</i> , 2013, 4, 2207.	5.8	161

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19	Light sheet microscopy for real-time developmental biology. <i>Current Opinion in Genetics and Development</i> , 2011, 21, 566-572.	1.5	146
20	Mechanical Coupling between Endoderm Invagination and Axis Extension in <i>Drosophila</i> . <i>PLoS Biology</i> , 2015, 13, e1002292.	2.6	128
21	Regulation of β 1 Integrin-Klf2-Mediated Angiogenesis by CCM Proteins. <i>Developmental Cell</i> , 2015, 32, 181-190.	3.1	127
22	Endothelial Cell Self-fusion during Vascular Pruning. <i>PLoS Biology</i> , 2015, 13, e1002126.	2.6	119
23	Single continuous lumen formation in the zebrafish gut is mediated by <i>smoothed</i> -dependent tissue remodeling. <i>Development (Cambridge)</i> , 2014, 141, 1110-1119.	1.2	93
24	Hyperspectral light sheet microscopy. <i>Nature Communications</i> , 2015, 6, 7990.	5.8	92
25	The smart and gentle microscope. <i>Nature Biotechnology</i> , 2015, 33, 815-818.	9.4	85
26	The Extracellular Domain of Smoothed Regulates Ciliary Localization and Is Required for High-Level Hh Signaling. <i>Current Biology</i> , 2009, 19, 1034-1039.	1.8	81
27	Light sheet microscopy. <i>Methods in Cell Biology</i> , 2014, 123, 193-215.	0.5	76
28	Transgenic zebrafish illuminate the dynamics of thyroid morphogenesis and its relationship to cardiovascular development. <i>Developmental Biology</i> , 2012, 372, 203-216.	0.9	72
29	Optical tomography complements light sheet microscopy for <i>in toto</i> imaging of zebrafish development. <i>Development (Cambridge)</i> , 2015, 142, 1016-1020.	1.2	65
30	Genetic Evidence for a Noncanonical Function of Seryl-tRNA Synthetase in Vascular Development. <i>Circulation Research</i> , 2009, 104, 1260-1266.	2.0	64
31	Multiple imaging axis microscopy improves resolution for thick-sample applications. <i>Optics Letters</i> , 2003, 28, 1654.	1.7	60
32	3Dscript: animating 3D/4D microscopy data using a natural-language-based syntax. <i>Nature Methods</i> , 2019, 16, 278-280.	9.0	58
33	The Popeye domain containing 2 (<i>popdc2</i>) gene in zebrafish is required for heart and skeletal muscle development. <i>Developmental Biology</i> , 2012, 363, 438-450.	0.9	57
34	Optical scanning holography as a technique for high-resolution three-dimensional biological microscopy. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2002, 19, 1910.	0.8	54
35	Regulation of neurocoel morphogenesis by <i>Pard6^{3b}</i> . <i>Developmental Biology</i> , 2008, 324, 41-54.	0.9	53
36	A conserved regulatory program initiates lateral plate mesoderm emergence across chordates. <i>Nature Communications</i> , 2019, 10, 3857.	5.8	51

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37	Tutorial: practical considerations for tissue clearing and imaging. <i>Nature Protocols</i> , 2021, 16, 2732-2748.	5.5	51
38	Neuromesodermal progenitors are a conserved source of spinal cord with divergent growth dynamics. <i>Development (Cambridge)</i> , 2018, 145, .	1.2	49
39	Optical levitation of absorbing particles with a nominally Gaussian laser beam. <i>Optics Letters</i> , 2002, 27, 1223.	1.7	48
40	Cell-accurate optical mapping across the entire developing heart. <i>ELife</i> , 2017, 6, .	2.8	48
41	Continuous addition of progenitors forms the cardiac ventricle in zebrafish. <i>Nature Communications</i> , 2018, 9, 2001.	5.8	48
42	Cse1l Is a Negative Regulator of CFTR-Dependent Fluid Secretion. <i>Current Biology</i> , 2010, 20, 1840-1845.	1.8	47
43	Multiple roles for Med12 in vertebrate endoderm development. <i>Developmental Biology</i> , 2008, 317, 467-479.	0.9	45
44	Multi-sample SPIM image acquisition, processing and analysis of vascular growth in zebrafish. <i>Development (Cambridge)</i> , 2019, 146, .	1.2	40
45	Multi-scale imaging and analysis identify pan-embryo cell dynamics of germlayer formation in zebrafish. <i>Nature Communications</i> , 2019, 10, 5753.	5.8	40
46	Slicing embryos gently with laser light sheets. <i>BioEssays</i> , 2012, 34, 406-411.	1.2	36
47	Real-time multi-view deconvolution. <i>Bioinformatics</i> , 2015, 31, 3398-3400.	1.8	35
48	Multilayer Mounting for Long-term Light Sheet Microscopy of Zebrafish. <i>Journal of Visualized Experiments</i> , 2014, , e51119.	0.2	28
49	Fast Fluorescence Microscopy with Light Sheets. <i>Biological Bulletin</i> , 2016, 231, 14-25.	0.7	27
50	Putting advanced microscopy in the hands of biologists. <i>Nature Methods</i> , 2019, 16, 1069-1073.	9.0	25
51	In vivo imaging of cardiac development and function in zebrafish using light sheet microscopy. <i>Swiss Medical Weekly</i> , 2015, 145, w14227.	0.8	25
52	Omnidirectional microscopy. <i>Nature Methods</i> , 2012, 9, 656-657.	9.0	22
53	Label-free redox imaging of patient-derived organoids using selective plane illumination microscopy. <i>Biomedical Optics Express</i> , 2020, 11, 2591.	1.5	21
54	Long-term in vivo imaging reveals tumor-specific dissemination and captures host tumor interaction in zebrafish xenografts. <i>Scientific Reports</i> , 2020, 10, 13254.	1.6	20

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55	Loss of the Polycomb group protein Rnf2 results in derepression of tbx-transcription factors and defects in embryonic and cardiac development. <i>Scientific Reports</i> , 2019, 9, 4327.	1.6	18
56	Dynamic and non-contact 3D sample rotation for microscopy. <i>Nature Communications</i> , 2018, 9, 5025.	5.8	17
57	Cerebrovascular endothelial cells form transient Notch-dependent cystic structures in zebrafish. <i>EMBO Reports</i> , 2019, 20, e47047.	2.0	17
58	Efficacy of Voriconazole against <i>Aspergillus fumigatus</i> Infection Depends on Host Immune Function. <i>Antimicrobial Agents and Chemotherapy</i> , 2020, 64, .	1.4	17
59	Hand2 delineates mesothelium progenitors and is reactivated in mesothelioma. <i>Nature Communications</i> , 2022, 13, 1677.	5.8	17
60	A versatile cortical pattern-forming circuit based on Rho, F-actin, Ect2, and RGA-3/4. <i>Journal of Cell Biology</i> , 2022, 221, .	2.3	17
61	Fibrillin-2b regulates endocardial morphogenesis in zebrafish. <i>Developmental Biology</i> , 2012, 372, 111-119.	0.9	16
62	The effect of hyperglycemia on neurovascular coupling and cerebrovascular patterning in zebrafish. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2020, 40, 298-313.	2.4	16
63	Image quality guided smart rotation improves coverage in microscopy. <i>Nature Communications</i> , 2020, 11, 150.	5.8	16
64	KRas-transformed epithelia cells invade and partially dedifferentiate by basal cell extrusion. <i>Nature Communications</i> , 2021, 12, 7180.	5.8	16
65	Three-dimensional optical manipulation using four collimated intersecting laser beams. <i>Optics Express</i> , 2007, 15, 4921.	1.7	12
66	Spatial transcriptomics reveals antiparasitic targets associated with essential behaviors in the human parasite <i>Brugia malayi</i> . <i>PLoS Pathogens</i> , 2022, 18, e1010399.	2.1	12
67	Adaptable, illumination patterning light sheet microscopy. <i>Scientific Reports</i> , 2018, 8, 9615.	1.6	11
68	eduSPIM: Light Sheet Microscopy in the Museum. <i>PLoS ONE</i> , 2016, 11, e0161402.	1.1	9
69	Spatiotemporal Deformable Prototypes for Motion Anomaly Detection. <i>International Journal of Computer Vision</i> , 2017, 122, 502-523.	10.9	4
70	Role of Secretoglobin+ (club cell) NF- κ B/RelA-TGF β 2 signaling in aero-allergen-induced epithelial plasticity and subepithelial myofibroblast transdifferentiation. <i>Respiratory Research</i> , 2021, 22, 315.	1.4	4
71	Selective Plane Illumination Microscopy. , 2006, , 672-679.		3
72	Biology-inspired visualization of morphogenetic motion in the zebrafish endoderm. , 2016, , .		3

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73	Intraoperative histology: Lightning 3D histopathology. Nature Biomedical Engineering, 2017, 1, .	11.6	3
74	Optical Trapping of Small Particles. Springer Series in Optical Sciences, 2003, , 357-388.	0.5	2
75	linus: Conveniently explore, share, and present large-scale biological trajectory data in a web browser. PLoS Computational Biology, 2021, 17, e1009503.	1.5	2
76	Active particle manipulation with four laser beams. , 2004, 5322, 114.		1
77	Studying live embryos in 4D: Selective plane illumination microscopy: a new technique for high-resolution four-dimensional imaging. Biochemist, 2005, 27, 13-16.	0.2	1
78	Software Framework for Controlling Unsupervised Scientific Instruments. PLoS ONE, 2016, 11, e0161671.	1.1	1
79	Multidisciplinarity Is Critical to Unlock the Full Potential of Modern Light Microscopy. Frontiers in Cell and Developmental Biology, 2021, 9, 739015.	1.8	1
80	Cse1l Is a Negative Regulator of CFTR-Dependent Fluid Secretion. Current Biology, 2010, 20, 2157.	1.8	0
81	Smart Microscopy for Multi-Scale Developmental Biology in Real-Time. Microscopy and Microanalysis, 2017, 23, 1166-1167.	0.2	0