Pavel Tomancak

List of Publications by Year
in descending order

101	63,925	36203	37111
papers	citations	51 h-index	96 g-index

125	125	125	99677
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	LABKIT: Labeling and Segmentation Toolkit for Big Image Data. Frontiers in Computer Science, 2022, 4, .	1.7	85
2	The <scp>ImageJ</scp> ecosystem: Openâ€source software for image visualization, processing, and analysis. Protein Science, 2021, 30, 234-249.	3.1	102
3	Time to Upgrade: A New OpenSPIM Guide to Build and Operate Advanced OpenSPIM Configurations. Advanced Biology, 2021, , 2101182.	1.4	0
4	Tissue clearing and its applications inÂneuroscience. Nature Reviews Neuroscience, 2020, 21, 61-79.	4.9	350
5	CLIJ: GPU-accelerated image processing for everyone. Nature Methods, 2020, 17, 5-6.	9.0	122
6	Regionalized tissue fluidization is required for epithelial gap closure during insect gastrulation. Nature Communications, 2020, 11, 5604.	5.8	53
7	Imaging plant germline differentiation within Arabidopsis flowers by light sheet microscopy. ELife, 2020, 9, .	2.8	48
8	Ordered patterning of the sensory system is susceptible to stochastic features of gene expression. ELife, 2020, 9, .	2.8	14
9	HPC-as-a-Service via HEAppE Platform. Advances in Intelligent Systems and Computing, 2020, , 280-293.	0.5	4
10	Registration of Multi-modal Volumetric Images by Establishing Cell Correspondence. Lecture Notes in Computer Science, 2020, , 458-473.	1.0	1
11	A Behavioral Assay to Study Effects of Retinoid Pharmacology on Nervous System Development in a Marine Annelid. Methods in Molecular Biology, 2019, 2019, 193-207.	0.4	1
12	Yorkie controls tube length and apical barrier integrity during airway development. Journal of Cell Biology, 2019, 218, 2762-2781.	2.3	13
13	Evolutionary history of tissue bending. Science, 2019, 366, 300-301.	6.0	0
14	Imaging Flies by Fluorescence Microscopy: Principles, Technologies, and Applications. Genetics, 2019, 211, 15-34.	1.2	45
15	Cell communication in the blink of an eye. Nature, 2019, 571, 484-485.	13.7	0
16	Surface tension determines tissue shape and growth kinetics. Science Advances, 2019, 5, eaav9394.	4.7	80
17	Analysis of Actomyosin Dynamics at Local Cellular and Tissue Scales Using Time-lapse Movies of Cultured Drosophila Egg Chambers. Journal of Visualized Experiments, 2019, , .	0.2	1
18	Gene Regulation: Analog to Digital Conversion ofÂTranscription Factor Gradients. Current Biology, 2019, 29, R422-R424.	1.8	4

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19	SPIM workflow manager for HPC. Bioinformatics, 2019, 35, 3875-3876.	1.8	1
20	Attachment of the blastoderm to the vitelline envelope affects gastrulation of insects. Nature, 2019, 568, 395-399.	13.7	95
21	scenery: Flexible Virtual Reality Visualization on the Java VM. , 2019, , .		13
22	Control of Hox transcription factor concentration and cell-to-cell variability by an auto-regulatory switch. Development (Cambridge), 2019, 146, .	1.2	23
23	The apical protein Apnoia interacts with Crumbs to regulate tracheal growth and inflation. PLoS Genetics, 2019, 15, e1007852.	1.5	15
24	The ancestral retinoic acid receptor was a low-affinity sensor triggering neuronal differentiation. Science Advances, 2018, 4, eaao1261.	4.7	37
25	RNA buffers the phase separation behavior of prion-like RNA binding proteins. Science, 2018, 360, 918-921.	6.0	837
26	Ectopic expression of S28A-mutated Histone H3 modulates longevity, stress resistance and cardiac function in Drosophila. Scientific Reports, 2018, 8, 2940.	1.6	13
27	Content-aware image restoration: pushing the limits of fluorescence microscopy. Nature Methods, 2018, 15, 1090-1097.	9.0	758
28	Multiscale imaging of plant development by light-sheet fluorescence microscopy. Nature Plants, 2018, 4, 639-650.	4.7	109
29	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
30	SciJava Interface for Parallel Execution in the ImageJ Ecosystem. Lecture Notes in Computer Science, 2018, , 288-299.	1.0	2
31	Mutations in DONSON disrupt replication fork stability and cause microcephalic dwarfism. Nature Genetics, 2017, 49, 537-549.	9.4	81
32	An objective comparison of cell-tracking algorithms. Nature Methods, 2017, 14, 1141-1152.	9.0	399
33	Small molecule screen in embryonic zebrafish using modular variations to target segmentation. Nature Communications, 2017, 8, 1901.	5.8	29
34	Assessing phototoxicity in live fluorescence imaging. Nature Methods, 2017, 14, 657-661.	9.0	346
35	Epithelial rotation is preceded by planar symmetry breaking of actomyosin and protects epithelial tissue from cell deformations. PLoS Genetics, 2017, 13, e1007107.	1.5	11
36	A genome-wide resource for the analysis of protein localisation in Drosophila. ELife, 2016, 5, e12068.	2.8	315

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37	Exploring Time-dependent Scientific Data Using Spatially Aware Mobiles and Large Displays. , 2016, , .		11
38	Universal Rules of Regulation. Cell, 2016, 165, 1035-1036.	13.5	0
39	Light-sheet microscopy for everyone? Experience of building an OpenSPIM to study flatworm development. BMC Developmental Biology, 2016, 16, 22.	2.1	28
40	Sample Preparation and Mounting of Drosophila Embryos for Multiview Light Sheet Microscopy. Methods in Molecular Biology, 2016, 1478, 189-202.	0.4	18
41	Rapid Ovary Mass-Isolation (ROMi) to Obtain Large Quantities of Drosophila Egg Chambers for Fluorescent In Situ Hybridization. Methods in Molecular Biology, 2016, 1478, 253-262.	0.4	2
42	Using Light Sheet Fluorescence Microscopy to Image Zebrafish Eye Development. Journal of Visualized Experiments, 2016, , e53966.	0.2	40
43	An automated workflow for parallel processing of large multiview SPIM recordings. Bioinformatics, 2016, 32, 1112-1114.	1.8	33
44	A role for tuned levels of nucleosome remodeler subunit ACF1 during Drosophila oogenesis. Developmental Biology, 2016, 411, 217-230.	0.9	16
45	Comment on â€œCortical folding scales universally with surface area and thickness, not number of neuronsâ€• Science, 2016, 351, 825-825.	6.0	14
46	BigDataViewer: visualization and processing for large image data sets. Nature Methods, 2015, 12, 481-483.	9.0	256
47	Probing the kinetic landscape of Hox transcription factorâ€“DNA binding in live cells by massively parallel Fluorescence Correlation Spectroscopy. Mechanisms of Development, 2015, 138, 218-225.	1.7	15
48	Guide to light-sheet microscopy for adventurous biologists. Nature Methods, 2015, 12, 30-34.	9.0	191
49	Endogenously Tagged Rab Proteins: A Resource to Study Membrane Trafficking in Drosophila. Developmental Cell, 2015, 33, 351-365.	3.1	159
50	Introns and gene expression: Cellular constraints, transcriptional regulation, and evolutionary consequences. BioEssays, 2015, 37, 148-154.	1.2	77
51	Systematic imaging reveals features and changing localization of mRNAs in Drosophila development. ELife, 2015, 4, .	2.8	123
52	An Adaptive Threshold in Mammalian Neocortical Evolution. PLoS Biology, 2014, 12, e1002000.	2.6	139
53	The Earliest Transcribed Zygotic Genes Are Short, Newly Evolved, and Different across Species. Cell Reports, 2014, 6, 285-292.	2.9	179
54	Going "open" with Mesoscopy: a new dimension on multi-view imaging. Protoplasma, 2014, 251, 363-372.	1.0	12

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55	Open-source solutions for SPIMage processing. Methods in Cell Biology, 2014, 123, 505-529.	0.5	20
56	Efficient Bayesian-based multiview deconvolution. Nature Methods, 2014, 11, 645-648.	9.0	232
57	Bioimage Informatics in the context of Drosophila research. Methods, 2014, 68, 60-73.	1.9	22
58	OpenSPIM: an open-access light-sheet microscopy platform. Nature Methods, 2013, 10, 598-599.	9.0	312
59	ImgLib2--generic image processing in Java. Bioinformatics, 2013, 29, 298-298.	1.8	0
60	An Excess of Gene Expression Divergence on the X Chromosome in Drosophila Embryos: Implications for the Faster-X Hypothesis. PLoS Genetics, 2012, 8, e1003200.	1.5	34
61	Recombination-Mediated Genetic Engineering of Large Genomic DNA Transgenes. Methods in Molecular Biology, 2012, 772, 445-458.	0.4	13
62	Production of Fosmid Genomic Libraries Optimized for Liquid Culture Recombineering and Cross-Species Transgenesis. Methods in Molecular Biology, 2012, 772, 423-443.	0.4	12
63	ImgLib2â€"generic image processing in Java. Bioinformatics, 2012, 28, 3009-3011.	1.8	132
64	Abundant Occurrence of Basal Radial Glia in the Subventricular Zone of Embryonic Neocortex of a Lissencephalic Primate, the Common Marmoset Callithrix jacchus. Cerebral Cortex, 2012, 22, 469-481.	1.6	201
65	The evolution of early animal embryos: conservation or divergence?. Trends in Ecology and Evolution, 2012, 27, 385-393.	4.2	106
66	Elastic volume reconstruction from series of ultra-thin microscopy sections. Nature Methods, 2012, 9, 717-720.	9.0	265
67	TrakEM2 Software for Neural Circuit Reconstruction. PLoS ONE, 2012, 7, e38011.	1.1	832
68	Biological imaging software tools. Nature Methods, 2012, 9, 697-710.	9.0	462
69	Current challenges in open-source bioimage informatics. Nature Methods, 2012, 9, 661-665.	9.0	61
70	Fiji: an open-source platform for biological-image analysis. Nature Methods, 2012, 9, 676-682.	9.0	47,818
71	Restoration of Uneven Illumination in Light Sheet Microscopy Images. Microscopy and Microanalysis, 2011, 17, 607-613.	0.2	7
72	linkcomm: an R package for the generation, visualization, and analysis of link communities in networks of arbitrary size and type. Bioinformatics, 2011, 27, 2011-2012.	1.8	121

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73	Gene expression divergence recapitulates the developmental hourglass model. Nature, 2010, 468, 811-814.	13.7	364
74	Visualization of image data from cells to organisms. Nature Methods, 2010, 7, S26-S41.	9.0	226
75	Software for bead-based registration of selective plane illumination microscopy data. Nature Methods, 2010, 7, 418-419.	9.0	354
76	An alignment-free method to identify candidate orthologous enhancers in multiple Drosophila genomes. Bioinformatics, 2010, 26, 2109-2115.	1.8	20
77	As-rigid-as-possible mosaicking and serial section registration of large ssTEM datasets. Bioinformatics, 2010, 26, i57-i63.	1.8	124
78	An Integrated Micro- and Macroarchitectural Analysis of the Drosophila Brain by Computer-Assisted Serial Section Electron Microscopy. PLoS Biology, 2010, 8, e1000502.	2.6	308
79	Mapping the complexity of transcription control in higher eukaryotes. Genome Biology, 2010, 11, 115.	13.9	3
80	In Vivo RNAi Rescue in Drosophila melanogaster with Genomic Transgenes from Drosophila pseudoobscura. PLoS ONE, 2010, 5, e8928.	1.1	34
81	Bead-based mosaicing of single plane illumination microscopy images using geometric local descriptor matching. Proceedings of SPIE, 2009, , .	0.8	11
82	CATMAID: collaborative annotation toolkit for massive amounts of image data. Bioinformatics, 2009, 25, 1984-1986.	1.8	333
83	Globally optimal stitching of tiled 3D microscopic image acquisitions. Bioinformatics, 2009, 25, 1463-1465.	1.8	1,970
84	A toolkit for high-throughput, cross-species gene engineering in Drosophila. Nature Methods, 2009, 6, 435-437.	9.0	110
85	Motif composition, conservation and condition-specificity of single and alternative transcription start sites in the Drosophila genome. Genome Biology, 2009, 10, R73.	13.9	86
86	Drosophila Brain Development: Closing the Gap between a Macroarchitectural and Microarchitectural Approach. Cold Spring Harbor Symposia on Quantitative Biology, 2009, 74, 235-248.	2.0	11
87	Selective maintenance of Drosophila tandemly arranged duplicated genes during evolution. Genome Biology, 2008, 9, R176.	13.9	20
88	Mapping the gene expression universe. Current Opinion in Genetics and Development, 2008, 18, 506-512.	1.5	17
89	Towards digital representation of Drosophila embryogenesis. , 2008, , .		2
90	Mosaicing of single plane illumination microscopy images using groupwise registration and fast content-based image fusion. , 2008, , .		11

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91	Global Analysis of mRNA Localization Reveals a Prominent Role in Organizing Cellular Architecture and Function. Cell, 2007, 131, 174-187.	13.5	878
92	Global analysis of patterns of gene expression during Drosophila embryogenesis. Genome Biology, 2007, 8, R145.	13.9	387
93	Transcriptional control in embryonic Drosophila midline guidance assessed through a whole genome approach. BMC Neuroscience, 2007, 8, 59.	0.8	9
94	Drosophila microRNAs exhibit diverse spatial expression patterns during embryonic development. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18017-18022.	3.3	252
95	Computational identification of Drosophila microRNA genes. Genome Biology, 2003, 4, R42.	13.9	624
96	Exploiting transcription factor binding site clustering to identify cis-regulatory modules involved in pattern formation in the Drosophila genome. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 757-762.	3.3	541
97	Systematic determination of patterns of gene expression during Drosophila embryogenesis. Genome Biology, 2002, 3, research0088.1.	13.9	600
98	A Drosophila melanogaster homologue of Caenorhabditis elegans par-1 acts at an early step in embryonic-axis formation. Nature Cell Biology, 2000, 2, 458-460.	4.6	157
99	Iron-regulatory protein-1 (IRP-1) is highly conserved in two invertebrate species. Characterization of IRP-1 homologues in Drosophila melanogaster and Caenorhabditis elegans. FEBS Journal, 1998, 254, 230-237.	0.2	51
100	Oocyte polarity depends on regulation of gurken by Vasa. Development (Cambridge), 1998, 125, 1723-1732.	1.2	167
101	Oocyte polarity depends on regulation of gurken by Vasa. Development (Cambridge), 1998, 125, 1723-32.	1.2	67