

Thomas Walter

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

5,012
citations

201674

27
h-index

302126

39
g-index

60
all docs

60
docs citations

60
times ranked

7163
citing authors

#	ARTICLE	IF	CITATIONS
1	Phenotypic profiling of the human genome by time-lapse microscopy reveals cell division genes. Nature, 2010, 464, 721-727.	27.8	768
2	A contribution of image processing to the diagnosis of diabetic retinopathy-detection of exudates in color fundus images of the human retina. IEEE Transactions on Medical Imaging, 2002, 21, 1236-1243.	8.9	667
3	Segmentation of Nuclei in Histopathology Images by Deep Regression of the Distance Map. IEEE Transactions on Medical Imaging, 2019, 38, 448-459.	8.9	351
4	Assessment of algorithms for mitosis detection in breast cancer histopathology images. Medical Image Analysis, 2015, 20, 237-248.	11.6	338
5	CellCognition: time-resolved phenotype annotation in high-throughput live cell imaging. Nature Methods, 2010, 7, 747-754.	19.0	331
6	smiFISH and FISH-quant – a flexible single RNA detection approach with super-resolution capability. Nucleic Acids Research, 2016, 44, e165-e165.	14.5	312
7	Automatic detection of microaneurysms in color fundus images. Medical Image Analysis, 2007, 11, 555-566.	11.6	292
8	Visualization of image data from cells to organisms. Nature Methods, 2010, 7, S26-S41.	19.0	226
9	Reverse transfection on cell arrays for high content screening microscopy. Nature Protocols, 2007, 2, 392-399.	12.0	179
10	Segmentation of Color Fundus Images of the Human Retina: Detection of the Optic Disc and the Vascular Tree Using Morphological Techniques. Lecture Notes in Computer Science, 2001, , 282-287.	1.3	140
11	Micropilot: automation of fluorescence microscopy–based imaging for systems biology. Nature Methods, 2011, 8, 246-249.	19.0	140
12	Nuclei segmentation in histopathology images using deep neural networks. , 2017, , .		125
13	Visualizing biological data– now and in the future. Nature Methods, 2010, 7, S2-S4.	19.0	115
14	Prediction of human population responses to toxic compounds by a collaborative competition. Nature Biotechnology, 2015, 33, 933-940.	17.5	88
15	A Dual Protein-mRNA Localization Screen Reveals Compartmentalized Translation and Widespread Co-translational RNA Targeting. Developmental Cell, 2020, 54, 773-791.e5.	7.0	88
16	Waterpixels. IEEE Transactions on Image Processing, 2015, 24, 3707-3716.	9.8	85
17	Evaluation of automated fundus photograph analysis algorithms for detecting microaneurysms, haemorrhages and exudates, and of a computer-assisted diagnostic system for grading diabetic retinopathy. Diabetes and Metabolism, 2010, 36, 213-220.	2.9	75
18	Mitotic lamin disassembly is triggered by lipid-mediated signaling. Journal of Cell Biology, 2012, 198, 981-990.	5.2	63

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19	Human lymphoid organ cDC2 and macrophages play complementary roles in T follicular helper responses. <i>Journal of Experimental Medicine</i> , 2019, 216, 1561-1581.	8.5	63
20	A choreography of centrosomal mRNAs reveals a conserved localization mechanism involving active polysome transport. <i>Nature Communications</i> , 2021, 12, 1352.	12.8	52
21	Automatic identification and clustering of chromosome phenotypes in a genome wide RNAi screen by time-lapse imaging. <i>Journal of Structural Biology</i> , 2010, 170, 1-9.	2.8	49
22	A computational framework to study sub-cellular RNA localization. <i>Nature Communications</i> , 2018, 9, 4584.	12.8	47
23	FISH-quant v2: a scalable and modular tool for smFISH image analysis. <i>Rna</i> , 2022, 28, 786-795.	3.5	45
24	Integration of biological data by kernels on graph nodes allows prediction of new genes involved in mitotic chromosome condensation. <i>Molecular Biology of the Cell</i> , 2014, 25, 2522-2536.	2.1	44
25	EML3 is a nuclear microtubule-binding protein required for the correct alignment of chromosomes in metaphase. <i>Journal of Cell Science</i> , 2008, 121, 1718-1726.	2.0	37
26	A Genomic Multiprocess Survey of Machineries that Control and Link Cell Shape, Microtubule Organization, and Cell-Cycle Progression. <i>Developmental Cell</i> , 2014, 31, 227-239.	7.0	36
27	Automatic Detection of Microaneurysms in Color Fundus Images of the Human Retina by Means of the Bounding Box Closing. <i>Lecture Notes in Computer Science</i> , 2002, , 210-220.	1.3	32
28	Anti-angiogenic properties of myo-inositol trispyrophosphate in ovo and growth reduction of implanted glioma. <i>FEBS Letters</i> , 2007, 581, 962-966.	2.8	28
29	The kinesin KIF1C transports APC-dependent mRNAs to cell protrusions. <i>Rna</i> , 2021, 27, 1528-1544.	3.5	23
30	Waterpixels: Superpixels based on the watershed transformation. , 2014, , .		21
31	ARHGEF17 is an essential spindle assembly checkpoint factor that targets Mps1 to kinetochores. <i>Journal of Cell Biology</i> , 2016, 212, 647-659.	5.2	20
32	A generic methodological framework for studying single cell motility in high-throughput time-lapse data. <i>Bioinformatics</i> , 2015, 31, i320-i328.	4.1	18
33	MAP1S controls microtubule stability throughout the cell cycle in human cells. <i>Journal of Cell Science</i> , 2014, 127, 5007-13.	2.0	14
34	Dynamical modelling of phenotypes in a genome-wide RNAi live-cell imaging assay. <i>BMC Bioinformatics</i> , 2013, 14, 308.	2.6	13
35	Automatic Analysis of Color Fundus Photographs and Its Application to the Diagnosis of Diabetic Retinopathy. , 2005, , 315-368.		12
36	New general features based on superpixels for image segmentation learning. , 2016, , .		10

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37	Domain-invariant features for mechanism of action prediction in a multi-cell-line drug screen. <i>Bioinformatics</i> , 2020, 36, 1607-1613.	4.1	7
38	High-Throughput Microscopy Using Live Mammalian Cells. <i>Cold Spring Harbor Protocols</i> , 2010, 2010, pdb.top84.	0.3	5
39	Predicting Residual Cancer Burden In A Triple Negative Breast Cancer Cohort. , 2019, , .		5
40	Redistribution of the neurosensory retina in inferior limited macular translocation: an evaluation using image registration. <i>Graefe's Archive for Clinical and Experimental Ophthalmology</i> , 2007, 245, 437-442.	1.9	3
41	A Deep Learning Approach To Identify mRNA Localization Patterns. , 2019, , .		3
42	Spatial transcriptomics for respiratory research and medicine. <i>European Respiratory Journal</i> , 2021, 58, 2004314.	6.7	3
43	Kernel Multitask Regression for Toxicogenetics. <i>Molecular Informatics</i> , 2017, 36, 1700053.	2.5	2
44	Analysing double-strand breaks in cultured cells for drug screening applications by causal inference. , 2018, , .		2
45	Neural network fastâ€classifies biological images through features selecting to power automated microscopy. <i>Journal of Microscopy</i> , 2022, 285, 3-19.	1.8	2
46	Prediction of Treatment Response in Triple Negative Breast Cancer From Whole Slide Images. <i>Frontiers in Signal Processing</i> , 0, 2, .	1.7	2
47	Inferring an ontology of single cell motions from high-throughput microscopy data. , 2015, , .		1
48	Experimentally-Generated Ground Truth for Detecting Cell Types in an Image-Based Immunotherapy Screen. , 2020, , .		1
49	A Localization Screen Reveals Translation Factories and Widespread Co-Translational Protein Targeting. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1
50	A genome wide RNAi screen by time lapse microscopy in order to identify mitotic genes — computational aspects and challenges. , 2008, , .		0