Thomas Walter

List of Publications by Citations

49 papers	3,544 citations	25 h-index	59 g-index
60 ext. papers	4,360 ext. citations	10.9 avg, IF	4.9 L-index

#	Paper	IF	Citations
49	Phenotypic profiling of the human genome by time-lapse microscopy reveals cell division genes. *Nature*, **2010**, 464, 721-7	50.4	668
48	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, 1236-43	11.7	477
47	CellCognition: time-resolved phenotype annotation in high-throughput live cell imaging. *Nature Methods*, **2010**, 7, 747-54	21.6	256
46	Assessment of algorithms for mitosis detection in breast cancer histopathology images. *Medical Image Analysis*, **2015**, 20, 237-48	15.4	245
45	Automatic detection of microaneurysms in color fundus images. *Medical Image Analysis*, **2007**, 11, 555-66	15.4	212
44	Visualization of image data from cells to organisms. *Nature Methods*, **2010**, 7, S26-41	21.6	189
43	Reverse transfection on cell arrays for high content screening microscopy. *Nature Protocols*, **2007**, 2, 392-9	18.8	162
42	Segmentation of Nuclei in Histopathology Images by Deep Regression of the Distance Map. *IEEE Transactions on Medical Imaging*, **2019**, 38, 448-459	11.7	158
41	smiFISH and FISH-quant - a flexible single RNA detection approach with super-resolution capability. *Nucleic Acids Research*, **2016**, 44, e165	20.1	158
40	Micropilot: automation of fluorescence microscopy-based imaging for systems biology. *Nature Methods*, **2011**, 8, 246-9	21.6	107
39	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	0.9	98
38	Visualizing biological data-now and in the future. *Nature Methods*, **2010**, 7, S2-4	21.6	85
37	Prediction of human population responses to toxic compounds by a collaborative competition. *Nature Biotechnology*, **2015**, 33, 933-40	44.5	70
36	Nuclei segmentation in histopathology images using deep neural networks **2017**,		67
35	Waterpixels. *IEEE Transactions on Image Processing*, **2015**, 24, 3707-16	8.7	66
34	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, 213-20	5.4	65
33	Mitotic lamin disassembly is triggered by lipid-mediated signaling. *Journal of Cell Biology*, **2012**, 198, 981-90	7.3	50

32	Automatic identification and clustering of chromosome phenotypes in a genome wide RNAi screen by time-lapse imaging. *Journal of Structural Biology*, **2010**, 170, 1-9	3.4	42
31	Human lymphoid organ cDC2 and macrophages play complementary roles in T follicular helper responses. *Journal of Experimental Medicine*, **2019**, 216, 1561-1581	16.6	36
30	Integration of biological data by kernels on graph nodes allows prediction of new genes involved in mitotic chromosome condensation. *Molecular Biology of the Cell*, **2014**, 25, 2522-36	3.5	36
29	EML3 is a nuclear microtubule-binding protein required for the correct alignment of chromosomes in metaphase. *Journal of Cell Science*, **2008**, 121, 1718-26	5.3	35
28	A Dual Protein-mRNA Localization Screen Reveals Compartmentalized Translation and Widespread Co-translational RNA Targeting. *Developmental Cell*, **2020**, 54, 773-791.e5	10.2	33
27	A computational framework to study sub-cellular RNA localization. *Nature Communications*, **2018**, 9, 4584	17.4	29
26	A genomic Multiprocess survey of machineries that control and link cell shape, microtubule organization, and cell-cycle progression. *Developmental Cell*, **2014**, 31, 227-239	10.2	26
25	Automatic Detection of Microaneurysms in Color Fundus Images of the Human Retina by Means of the Bounding Box Closing. *Lecture Notes in Computer Science*, **2002**, 210-220	0.9	26
24	Anti-angiogenic properties of myo-inositol trispyrophosphate in ovo and growth reduction of implanted glioma. *FEBS Letters*, **2007**, 581, 962-6	3.8	24
23	ARHGEF17 is an essential spindle assembly checkpoint factor that targets Mps1 to kinetochores. *Journal of Cell Biology*, **2016**, 212, 647-59	7.3	14
22	A choreography of centrosomal mRNAs reveals a conserved localization mechanism involving active polysome transport. *Nature Communications*, **2021**, 12, 1352	17.4	14
21	A generic methodological framework for studying single cell motility in high-throughput time-lapse data. *Bioinformatics*, **2015**, 31, i320-8	7.2	13
20	MAP1S controls microtubule stability throughout the cell cycle in human cells. *Journal of Cell Science*, **2014**, 127, 5007-13	5.3	11
19	Dynamical modelling of phenotypes in a genome-wide RNAi live-cell imaging assay. *BMC Bioinformatics*, **2013**, 14, 308	3.6	10
18	New general features based on superpixels for image segmentation learning **2016**,		9
17	Waterpixels: Superpixels based on the watershed transformation **2014**,		9
16	Automatic Analysis of Color Fundus Photographs and Its Application to the Diagnosis of Diabetic Retinopathy **2005**, 315-368		8
15	The kinesin KIF1C transports APC-dependent mRNAs to cell protrusions. *Rna*, **2021**, 27, 1528-1544	5.8	6

14	High-throughput microscopy using live mammalian cells. *Cold Spring Harbor Protocols*, **2010**, 2010, pdb.top84	1.2	5
13	Domain-invariant features for mechanism of action prediction in a multi-cell-line drug screen. *Bioinformatics*, **2020**, 36, 1607-1613	7.2	4
12	Spatial Repulsion Between Markers Improves Watershed Performance. *Lecture Notes in Computer Science*, **2015**, 194-202	0.9	3
11	Kernel Multitask Regression for Toxicogenetics. *Molecular Informatics*, **2017**, 36, 1700053	3.8	2
10	A Deep Learning Approach To Identify MRNA Localization Patterns **2019**,		2
9	Redistribution of the neurosensory retina in inferior limited macular translocation: an evaluation using image registration. *Graefe's Archive for Clinical and Experimental Ophthalmology*, **2007**, 245, 437-42	3.8	2
8	The kinesin KIF1C transports APC-dependent mRNAs to cell protrusions		2
7	Spatial transcriptomics for respiratory research and medicine. *European Respiratory Journal*, **2021**, 58,	13.6	2
6	FISH-quant v2: a scalable and modular tool for smFISH image analysis.. *Rna*, **2022**,	5.8	2
5	Infering an ontology of single cell motions from high-throughput microscopy data **2015**,		1
4	Predicting Residual Cancer Burden In A Triple Negative Breast Cancer Cohort **2019**,		1
3	A Localization Screen Reveals Translation Factories and Widespread Co-Translational Protein Targeting. *SSRN Electronic Journal*,	1	1
2	FISH-quant v2: a scalable and modular analysis tool for smFISH image analysis		1
1	**2018**,		1