

# Carolina Wählby

## List of Publications by Year in descending order

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94  
papers

3,917  
citations

257450

24  
h-index

144013

57  
g-index

106  
all docs

106  
docs citations

106  
times ranked

6600  
citing authors

#	ARTICLE	IF	CITATIONS
1	Regular Use of Depot Medroxyprogesterone Acetate Causes Thinning of the Superficial Lining and Apical Distribution of Human Immunodeficiency Virus Target Cells in the Human Ectocervix. <i>Journal of Infectious Diseases</i> , 2022, 225, 1151-1161.	4.0	18
2	Spatial Statistics for Understanding Tissue Organization. <i>Frontiers in Physiology</i> , 2022, 13, 832417.	2.8	7
3	Deep Learning With Conformal Prediction for Hierarchical Analysis of Large-Scale Whole-Slide Tissue Images. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2021, 25, 371-380.	6.3	18
4	Towards Automatic Protein Co-Expression Quantification in Immunohistochemical TMA Slides. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2021, 25, 393-402.	6.3	5
5	Spage2vec: Unsupervised representation of localized spatial gene expression signatures. <i>FEBS Journal</i> , 2021, 288, 1859-1870.	4.7	30
6	TEM image restoration from fast image streams. <i>PLoS ONE</i> , 2021, 16, e0246336.	2.5	3
7	Rapid development of cloud-native intelligent data pipelines for scientific data streams using the HASTE Toolkit. <i>GigaScience</i> , 2021, 10, .	6.4	2
8	ImageJ and CellProfiler: Complements in Open-Source Bioimage Analysis. <i>Current Protocols</i> , 2021, 1, e89.	2.9	20
9	Machine learning for cell classification and neighborhood analysis in glioma tissue. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2021, 99, 1176-1186.	1.5	8
10	Deep-learning models for lipid nanoparticle-based drug delivery. <i>Nanomedicine</i> , 2021, 16, 1097-1110.	3.3	18
11	Artificial Intelligence for Diagnosis and Gleason Grading of Prostate Cancer in Biopsies—Current Status and Next Steps. <i>European Urology Focus</i> , 2021, 7, 687-691.	3.1	18
12	Genes in human obesity loci are causal obesity genes in <i>C. elegans</i> . <i>PLoS Genetics</i> , 2021, 17, e1009736.	3.5	17
13	Morphological Features Extracted by AI Associated with Spatial Transcriptomics in Prostate Cancer. <i>Cancers</i> , 2021, 13, 4837.	3.7	15
14	Graph-based image decoding for multiplexed in situ RNA detection. , 2021, , .		1
15	Artificial intelligence for diagnosis and grading of prostate cancer in biopsies: a population-based, diagnostic study. <i>Lancet Oncology</i> , The, 2020, 21, 222-232.	10.7	364
16	In Silico Prediction of Cell Traction Forces. , 2020, , .		2
17	Automated identification of the mouse brain's spatial compartments from in situ sequencing data. <i>BMC Biology</i> , 2020, 18, 144.	3.8	16
18	Weakly-Supervised Prediction of Cell Migration Modes in Confocal Microscopy Images Using Bayesian Deep Learning. , 2020, , .		0

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19	Introducing Hann windows for reducing edge-effects in patch-based image segmentation. PLoS ONE, 2020, 15, e0229839.	2.5	20
20	TissUUmaps: interactive visualization of large-scale spatial gene expression and tissue morphology data. Bioinformatics, 2020, 36, 4363-4365.	4.1	30
21	Transcriptome-Supervised Classification of Tissue Morphology Using Deep Learning. , 2020, , .		1
22	Introducing Hann windows for reducing edge-effects in patch-based image segmentation. , 2020, 15, e0229839.		0
23	Introducing Hann windows for reducing edge-effects in patch-based image segmentation. , 2020, 15, e0229839.		0
24	Introducing Hann windows for reducing edge-effects in patch-based image segmentation. , 2020, 15, e0229839.		0
25	Introducing Hann windows for reducing edge-effects in patch-based image segmentation. , 2020, 15, e0229839.		0
26	Introducing Hann windows for reducing edge-effects in patch-based image segmentation. , 2020, 15, e0229839.		0
27	Introducing Hann windows for reducing edge-effects in patch-based image segmentation. , 2020, 15, e0229839.		0
28	Impact of Q-Griffithsin anti-HIV microbicide gel in non-human primates: In situ analyses of epithelial and immune cell markers in rectal mucosa. Scientific Reports, 2019, 9, 18120.	3.3	19
29	Deep Learning in Image Cytometry: A Review. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2019, 95, 366-380.	1.5	145
30	Human Immunodeficiency Virus-Infected Women Have High Numbers of CD103 <sup>hi</sup> CD8 <sup>+</sup> T Cells Residing Close to the Basal Membrane of the Ectocervical Epithelium. Journal of Infectious Diseases, 2018, 218, 453-465.	4.0	15
31	Quantitative image analysis of protein expression and colocalisation in skin sections. Experimental Dermatology, 2018, 27, 196-199.	2.9	9
32	Whole Slide Image Registration for the Study of Tumor Heterogeneity. Lecture Notes in Computer Science, 2018, , 95-102.	1.3	7
33	Image-Based Detection of Patient-Specific Drug-Induced Cell-Cycle Effects in Glioblastoma. SLAS Discovery, 2018, 23, 1030-1039.	2.7	0
34	Multiplexed fluorescence microscopy reveals heterogeneity among stromal cells in mouse bone marrow sections. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2018, 93, 876-888.	1.5	32
35	Abstract 441: Zebrafish Larvae as a Model System for High-throughput, Image-based Genetic Screens in Dyslipidemia and Atherosclerosis. Arteriosclerosis, Thrombosis, and Vascular Biology, 2018, 38, .	2.4	0
36	Objective automated quantification of fluorescence signal in histological sections of rat lens. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2017, 91, 815-821.	1.5	1

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37	Quantitative high-content/high-throughput microscopy analysis of lipid droplets in subject-specific adipogenesis models. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2017, 91, 1068-1077.	1.5	8
38	Automated Training of Deep Convolutional Neural Networks for Cell Segmentation. <i>Scientific Reports</i> , 2017, 7, 7860.	3.3	103
39	A comprehensive structural, biochemical and biological profiling of the human NUDIX hydrolase family. <i>Nature Communications</i> , 2017, 8, 1541.	12.8	124
40	Deep Fish. <i>SLAS Discovery</i> , 2017, 22, 102-107.	2.7	29
41	Differential Neuroprotective Effects of Interleukin-1 Receptor Antagonist on Spinal Cord Neurons after Excitotoxic Injury. <i>NeuroImmunoModulation</i> , 2017, 24, 220-230.	1.8	3
42	Deep Convolutional Neural Networks for Detecting Cellular Changes Due to Malignancy. , 2017, , .		25
43	Spheroid Segmentation Using Multiscale Deep Adversarial Networks. , 2017, , .		11
44	A short feature vector for image matching: The Log-Polar Magnitude feature descriptor. <i>PLoS ONE</i> , 2017, 12, e0188496.	2.5	4
45	Decoding Gene Expression in 2D and 3D. <i>Lecture Notes in Computer Science</i> , 2017, , 257-268.	1.3	1
46	Bridging Histology and Bioinformaticsâ€”Computational Analysis of Spatially Resolved Transcriptomics. <i>Proceedings of the IEEE</i> , 2016, , 1-12.	21.3	4
47	Global gray-level thresholding based on object size. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2016, 89, 385-390.	1.5	11
48	Feature Augmented Deep Neural Networks for Segmentation of Cells. <i>Lecture Notes in Computer Science</i> , 2016, , 231-243.	1.3	11
49	The quest for multiplexed spatially resolved transcriptional profiling. <i>Nature Methods</i> , 2016, 13, 623-624.	19.0	3
50	Fast adaptive local thresholding based on ellipse fit. , 2016, , .		18
51	Segmentation and Track-Analysis in Time-Lapse Imaging of Bacteria. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2016, 10, 174-184.	10.8	29
52	Comparison of Flow Cytometry and Image-Based Screening for Cell Cycle Analysis. <i>Lecture Notes in Computer Science</i> , 2016, , 623-630.	1.3	4
53	PopulationProfiler: A Tool for Population Analysis and Visualization of Image-Based Cell Screening Data. <i>PLoS ONE</i> , 2016, 11, e0151554.	2.5	8
54	Next-Generation Pathologyâ€”Surveillance of Tumor Microecology. <i>Journal of Molecular Biology</i> , 2015, 427, 2013-2022.	4.2	17

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55	Compaction of rolling circle amplification products increases signal integrity and signal-to-noise ratio. <i>Scientific Reports</i> , 2015, 5, 12317.	3.3	27
56	Image Segmentation, Processing and Analysis in Microscopy and Life Science. , 2015, , 1-16.		1
57	An Evaluation of the Faster STORM Method for Super-resolution Microscopy. , 2014, , .		0
58	Automated analysis of dynamic behavior of single cells in picoliter droplets. <i>Lab on A Chip</i> , 2014, 14, 931.	6.0	52
59	Image based in situ sequencing for RNA analysis in tissue. , 2014, , .		2
60	High- and low-throughput scoring of fat mass and body fat distribution in <i>C. elegans</i> . <i>Methods</i> , 2014, 68, 492-499.	3.8	54
61	In situ sequencing for RNA analysis in preserved tissue and cells. <i>Nature Methods</i> , 2013, 10, 857-860.	19.0	650
62	Blind Color Decomposition of Histological Images. <i>IEEE Transactions on Medical Imaging</i> , 2013, 32, 983-994.	8.9	75
63	High-throughput hyperdimensional vertebrate phenotyping. <i>Nature Communications</i> , 2013, 4, 1467.	12.8	85
64	Automated quantification of Zebrafish tail deformation for high-throughput drug screening. , 2013, , 902-905.		5
65	<i>Pseudomonas aeruginosa</i> Disrupts <i>Caenorhabditis elegans</i> Iron Homeostasis, Causing a Hypoxic Response and Death. <i>Cell Host and Microbe</i> , 2013, 13, 406-416.	11.0	178
66	Automated classification of immunostaining patterns in breast tissue from the human protein atlas. <i>Journal of Pathology Informatics</i> , 2013, 4, 14.	1.7	24
67	Fully automated cellular-resolution vertebrate screening platform with parallel animal processing. <i>Lab on A Chip</i> , 2012, 12, 711-716.	6.0	107
68	Visualising individual sequence-specific protein-DNA interactions in situ. <i>New Biotechnology</i> , 2012, 29, 589-598.	4.4	30
69	An image analysis toolbox for high-throughput <i>C. elegans</i> assays. <i>Nature Methods</i> , 2012, 9, 714-716.	19.0	154
70	Non-Random mtDNA Segregation Patterns Indicate a Metastable Heteroplasmic Segregation Unit in m.3243A>G Cybrid Cells. <i>PLoS ONE</i> , 2012, 7, e52080.	2.5	21
71	Increasing the dynamic range of in situ PLA. <i>Nature Methods</i> , 2011, 8, 892-893.	19.0	47
72	Automated classification of multicolored rolling circle products in dual-channel wide-field fluorescence microscopy. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2011, 79A, 518-527.	1.5	4

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73	Robust signal detection in 3D fluorescence microscopy. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2010, 77A, 86-96.	1.5	4
74	Resolving clustered worms via probabilistic shape models. , 2010, 2010, 552-555.		28
75	Bright-Field Microscopy Visualization of Proteins and Protein Complexes by In Situ Proximity Ligation with Peroxidase Detection. <i>Clinical Chemistry</i> , 2010, 56, 99-110.	3.2	34
76	Morphology-Guided Graph Search for Untangling Objects: <i>C. elegans</i> Analysis. <i>Lecture Notes in Computer Science</i> , 2010, 13, 634-641.	1.3	15
77	A single molecule array for digital targeted molecular analyses. <i>Nucleic Acids Research</i> , 2009, 37, e7-e7.	14.5	22
78	BlobFinder, a tool for fluorescence microscopy image cytometry. <i>Computer Methods and Programs in Biomedicine</i> , 2009, 94, 58-65.	4.7	116
79	A detailed analysis of 3D subcellular signal localization. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2009, 75A, 319-328.	1.5	13
80	Quantification of colocalization and cross-talk based on spectral angles. <i>Journal of Microscopy</i> , 2009, 234, 311-324.	1.8	18
81	Finding cells, finding molecules, finding patterns. <i>International Journal of Signal and Imaging Systems Engineering</i> , 2008, 1, 11.	0.6	0
82	In Situ Detection of Phosphorylated Platelet-derived Growth Factor Receptor $\hat{I}^2$ Using a Generalized Proximity Ligation Method. <i>Molecular and Cellular Proteomics</i> , 2007, 6, 1500-1509.	3.8	197
83	Single-cell A3243G Mitochondrial DNA Mutation Load Assays for Segregation Analysis. <i>Journal of Histochemistry and Cytochemistry</i> , 2007, 55, 1159-1166.	2.5	13
84	Image Based Measurements of Single Cell mtDNA Mutation Load. <i>Lecture Notes in Computer Science</i> , 2007, , 631-640.	1.3	5
85	Seeded Watersheds for Combined Segmentation and Tracking of Cells. <i>Lecture Notes in Computer Science</i> , 2005, , 336-343.	1.3	24
86	Easy-to-Use Object Selection by Color Space Projections and Watershed Segmentation. <i>Lecture Notes in Computer Science</i> , 2005, , 269-276.	1.3	0
87	Combining intensity, edge and shape information for 2D and 3D segmentation of cell nuclei in tissue sections. <i>Journal of Microscopy</i> , 2004, 215, 67-76.	1.8	293
88	Image analysis for automatic segmentation of cytoplasm and classification of Rac1 activation. , 2004, 57A, 22-33.		65
89	Abnormal expression pattern of cyclin E in tumour cells. <i>International Journal of Cancer</i> , 2003, 104, 369-375.	5.1	20
90	Segmentation of Cell Nuclei in Tissue by Combining Seeded Watersheds with Gradient Information. <i>Lecture Notes in Computer Science</i> , 2003, , 408-414.	1.3	9

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91	Algorithms for Cytoplasm Segmentation of Fluorescence Labelled Cells. Analytical Cellular Pathology, 2002, 24, 101-111.	2.1	129
92	Sequential immunofluorescence staining and image analysis for detection of large numbers of antigens in individual cell nuclei. Cytometry, 2002, 47, 32-41.	1.8	75
93	Sequential immunofluorescence staining and image analysis for detection of large numbers of antigens in individual cell nuclei. Cytometry, 2002, 47, 32-41.	1.8	30
94	Automated detection of vascular remodeling in tumor-draining lymph nodes by the deep learning tool HEV-finder. Journal of Pathology, 0, , .	4.5	1