Ihor Smal

List of Publications by Year in descending order

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Version: 2024-02-01

41 papers	4,197 citations	377584 21 h-index	511568 30 g-index
43 all docs	43 docs citations	43 times ranked	7361 citing authors

#	Article	IF	Citations
1	Methods for Cell and Particle Tracking. Methods in Enzymology, 2012, 504, 183-200.	0.4	1,217
2	Objective comparison of particle tracking methods. Nature Methods, 2014, 11, 281-289.	9.0	805
3	An objective comparison of cell-tracking algorithms. Nature Methods, 2017, 14, 1141-1152.	9.0	399
4	Quantitative Comparison of Spot Detection Methods in Fluorescence Microscopy. IEEE Transactions on Medical Imaging, 2010, 29, 282-301.	5.4	216
5	Tracking in cell and developmental biology. Seminars in Cell and Developmental Biology, 2009, 20, 894-902.	2.3	213
6	Rab6, Rab8, and MICAL3 Cooperate in Controlling Docking and Fusion of Exocytotic Carriers. Current Biology, 2011, 21, 967-974.	1.8	167
7	Particle Filtering for Multiple Object Tracking in Dynamic Fluorescence Microscopy Images: Application to Microtubule Growth Analysis. IEEE Transactions on Medical Imaging, 2008, 27, 789-804.	5.4	157
8	In Vitro Reconstitution of the Functional Interplay between MCAK and EB3 at Microtubule Plus Ends. Current Biology, 2010, 20, 1717-1722.	1.8	130
9	Objective comparison of methods to decode anomalous diffusion. Nature Communications, 2021, 12, 6253.	5.8	109
10	End-binding proteins sensitize microtubules to the action of microtubule-targeting agents. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8900-8905.	3.3	101
11	EB1 and EB3 regulate microtubule minus end organization and Golgi morphology. Journal of Cell Biology, 2017, 216, 3179-3198.	2.3	76
12	Isolation of Functional Tubulin Dimers and of Tubulin-Associated Proteins from Mammalian Cells. Current Biology, 2016, 26, 1728-1736.	1.8	66
13	History-Dependent Catastrophes Regulate Axonal Microtubule Behavior. Current Biology, 2010, 20, 1023-1028.	1.8	64
14	BRCA2 diffuses as oligomeric clusters with RAD51 and changes mobility after DNA damage in live cells. Journal of Cell Biology, 2014, 207, 599-613.	2.3	60
15	Concerted action of kinesins KIF5B and KIF13B promotes efficient secretory vesicle transport to microtubule plus ends. ELife, 2020, 9, .	2.8	46
16	Particle Mobility Analysis Using Deep Learning and the Moment Scaling Spectrum. Scientific Reports, 2019, 9, 17160.	1.6	42
17	Quantitative comparison of multiframe data association techniques for particle tracking in time-lapse fluorescence microscopy. Medical Image Analysis, 2015, 24, 163-189.	7.0	39
18	Microtubule Dynamics Analysis Using Kymographs and Variable-Rate Particle Filters. IEEE Transactions on Image Processing, 2010, 19, 1861-1876.	6.0	33

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19	CLASP2-dependent microtubule capture at the neuromuscular junction membrane requires LL5Î² and actin for focal delivery of acetylcholine receptor vesicles. Molecular Biology of the Cell, 2015, 26, 938-951.	0.9	31
20	Fuzzy-Logic Based Detection and Characterization of Junctions and Terminations in Fluorescence Microscopy Images of Neurons. Neuroinformatics, 2016, 14, 201-219.	1.5	26
21	Dynamic coronary roadmapping via catheter tip tracking in X-ray fluoroscopy with deep learning based Bayesian filtering. Medical Image Analysis, 2020, 61, 101634.	7.0	26
22	Deep-learning method for data association in particle tracking. Bioinformatics, 2020, 36, 4935-4941.	1.8	22
23	Reversible jump MCMC methods for fully automatic motion analysis in tagged MRI. Medical Image Analysis, 2012, 16, 301-324.	7.0	20
24	Deep neural networks for data association in particle tracking. , 2018, , .		20
25	Marker-Less Stage Drift Correction in Super-Resolution Microscopy Using the Single-Cluster PHD Filter. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 193-202.	7.3	19
26	SMARCAD1-mediated active replication fork stability maintains genome integrity. Science Advances, 2021, 7, .	4.7	15
27	Quantitative imaging of focal adhesion dynamics and their regulation by HGF and Rap1 signaling. Experimental Cell Research, 2015, 330, 382-397.	1.2	13
28	Stochastic optimization with randomized smoothing for image registration. Medical Image Analysis, 2017, 35, 146-158.	7.0	10
29	Particle Filtering for Multiple Object Tracking in Molecular Cell Biology. , 2006, , .		8
30	Accurate estimation of microtubule dynamics using kymographs and variable-rate particle filters. , 2009, 2009, 1012-5.		8
31	Automated Analysis of Intracellular Dynamic Processes. Methods in Molecular Biology, 2017, 1563, 209-228.	0.4	8
32	Automated Neuron Detection in High-Content Fluorescence Microscopy Images Using Machine Learning. Neuroinformatics, 2019, 17, 253-269.	1.5	7
33	Particle filtering methods for motion analysis in tagged MRI. , 2010, , .		5
34	Facilitating Data Association In Particle Tracking Using Autoencoding And Score Matching. , 2019, , .		5
35	Gaussian processes for trajectory analysis in microtubule tracking applications. , 2017, , .		3
36	Automatic detection of neurons in high-content microscope images using machine learning approaches. , 2016, , .		2

#	Article	IF	Citations
37	Nerve Fiber Segmentation in Bright-Field Microscopy Images of Skin Biopsies Using Deep Learning. , 2019, , .		2
38	Protein Phosphatase 2B Dual Function Facilitates Synaptic Integrity and Motor Learning. Journal of Neuroscience, 2021, 41, 5579-5594.	1.7	2
39	Accurate estimation of intracellular dynamics and underlying spatial structures using hierarchical trajectory smoothing. , 2018, , .		1
40	Detection Of Replication Forks In Em Images Using Faster R-Cnn. , 2021, , .		0
41	Identification of Diffusive States in Tracking Applications Using Unsupervised Deep Learning Methods. , 2022, , .		0