

Pavel Matula

List of Publications by Year in descending order

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43
papers

1,481
citations

394421

19
h-index

330143

37
g-index

47
all docs

47
docs citations

47
times ranked

2011
citing authors

#	ARTICLE	IF	CITATIONS
1	An objective comparison of cell-tracking algorithms. <i>Nature Methods</i> , 2017, 14, 1141-1152.	19.0	399
2	A benchmark for comparison of cell tracking algorithms. <i>Bioinformatics</i> , 2014, 30, 1609-1617.	4.1	345
3	Cell Tracking Accuracy Measurement Based on Comparison of Acyclic Oriented Graphs. <i>PLoS ONE</i> , 2015, 10, e0144959.	2.5	68
4	Acetylation-dependent nuclear arrangement and recruitment of BMI1 protein to UV-damaged chromatin. <i>Journal of Cellular Physiology</i> , 2012, 227, 1838-1850.	4.1	48
5	Human Embryonic Stem Cells Suffer from Centrosomal Amplification. <i>Stem Cells</i> , 2011, 29, 46-56.	3.2	39
6	TEM ExosomeAnalyzer: a computer-assisted software tool for quantitative evaluation of extracellular vesicles in transmission electron microscopy images. <i>Journal of Extracellular Vesicles</i> , 2019, 8, 1560808.	12.2	36
7	SUV39h-independent association of HP1 ² with fibrillar-positive nucleolar regions. <i>Chromosoma</i> , 2010, 119, 227-241.	2.2	33
8	Deep-Learning-Based Segmentation of Small Extracellular Vesicles in Transmission Electron Microscopy Images. <i>Scientific Reports</i> , 2019, 9, 13211.	3.3	32
9	DNA double-strand breaks in human induced pluripotent stem cell reprogramming and long-term in vitro culturing. <i>Stem Cell Research and Therapy</i> , 2017, 8, 73.	5.5	31
10	Fast point-based 3-D alignment of live cells. <i>IEEE Transactions on Image Processing</i> , 2006, 15, 2388-2396.	9.8	29
11	Trajectories and nuclear arrangement of PML bodies are influenced by A-type lamin deficiency. <i>Biology of the Cell</i> , 2012, 104, 418-432.	2.0	29
12	Automated acquisition and processing of multidimensional image data in confocal in vivo microscopy. <i>Microscopy Research and Technique</i> , 2004, 64, 164-175.	2.2	26
13	Segmentation of Touching Cell Nuclei Using a Two-Stage Graph Cut Model. <i>Lecture Notes in Computer Science</i> , 2009, , 410-419.	1.3	26
14	Determining Omics Spatiotemporal Dimensions Using Exciting New Nanoscopy Techniques to Assess Complex Cell Responses to DNA Damage: PART A-Radiomics. <i>Critical Reviews in Eukaryotic Gene Expression</i> , 2014, 24, 205-223.	0.9	26
15	Determining Omics Spatiotemporal Dimensions Using Exciting New Nanoscopy Techniques to Assess Complex Cell Responses to DNA Damage: Part - Structuromics. <i>Critical Reviews in Eukaryotic Gene Expression</i> , 2014, 24, 225-247.	0.9	26
16	Hybrid Detectors Improved Time-Lapse Confocal Microscopy of PML and 53BP1 Nuclear Body Colocalization in DNA Lesions. <i>Microscopy and Microanalysis</i> , 2013, 19, 360-369.	0.4	24
17	Heterogeneity in the kinetics of nuclear proteins and trajectories of substructures associated with heterochromatin. <i>Epigenetics and Chromatin</i> , 2011, 4, 5.	3.9	22
18	Non-Rigid Contour-Based Registration of Cell Nuclei in 2-D Live Cell Microscopy Images Using a Dynamic Elasticity Model. <i>IEEE Transactions on Medical Imaging</i> , 2018, 37, 173-184.	8.9	21

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19	SUV39hâ€-and Aâ€type laminâ€dependent telomere nuclear rearrangement. <i>Journal of Cellular Biochemistry</i> , 2010, 109, 915-926.	2.6	20
20	Endonuclease G interacts with histone H2B and DNA topoisomerase II alpha during apoptosis. <i>Molecular and Cellular Biochemistry</i> , 2012, 363, 301-307.	3.1	20
21	HP1Î²-dependent recruitment of UBF1 to irradiated chromatin occurs simultaneously with CPDs. <i>Epigenetics and Chromatin</i> , 2014, 7, 39.	3.9	18
22	A simple Fourier filter for suppression of the missing wedge ray artefacts in single-axis electron tomographic reconstructions. <i>Journal of Structural Biology</i> , 2014, 186, 141-152.	2.8	17
23	Chromocentre integrity and epigenetic marks. <i>Journal of Structural Biology</i> , 2010, 169, 124-133.	2.8	16
24	Performance and sensitivity evaluation of 3D spot detection methods in confocal microscopy. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2015, 87, 759-772.	1.5	15
25	Smooth Chanâ€Vese segmentation via graph cuts. <i>Pattern Recognition Letters</i> , 2012, 33, 1405-1410.	4.2	14
26	Reprogramming of Adult Peripheral Blood Cells into Human Induced Pluripotent Stem Cells as a Safe and Accessible Source of Endothelial Cells. <i>Stem Cells and Development</i> , 2018, 27, 10-22.	2.1	14
27	Acquarium: Free software for the acquisition and analysis of 3D images of cells in fluorescence microscopy. , 2009, , .		13
28	Prediction of localization and interactions of apoptotic proteins. <i>Journal of Biomedical Science</i> , 2009, 16, 59.	7.0	10
29	Arrangement of nuclear structures is not transmitted through mitosis but is identical in sister cells. <i>Journal of Cellular Biochemistry</i> , 2012, 113, 3313-3329.	2.6	10
30	Localized movement and morphology of UBF1-positive nucleolar regions are changed by Î³-irradiation in G2 phase of the cell cycle. <i>Nucleus</i> , 2015, 6, 301-313.	2.2	9
31	Directional motion of foreign plasmid DNA to nuclear HP1 foci. <i>Chromosome Research</i> , 2006, 14, 505-514.	2.2	7
32	Non-rigid contour-based temporal registration of 2D cell nuclei images using the Navier equation. , 2014, , .		7
33	Spherical Object Reconstruction Using Star-Shaped Simplex Meshes. <i>Lecture Notes in Computer Science</i> , 2001, , 608-620.	1.3	7
34	A Fast Level Set-Like Algorithm for Region-Based Active Contours. <i>Lecture Notes in Computer Science</i> , 2010, , 387-396.	1.3	6
35	The role of chromatin condensation during granulopoiesis in the regulation of gene cluster expression. <i>Epigenetics</i> , 2010, 5, 758-766.	2.7	5
36	Automatic Detection and Segmentation of Exosomes in Transmission Electron Microscopy. <i>Lecture Notes in Computer Science</i> , 2016, , 318-325.	1.3	3

#	ARTICLE	IF	CITATIONS
37	Fast Marching 3D Reconstruction of Interphase Chromosomes. Lecture Notes in Computer Science, 2004, , 385-394.	1.3	3
38	The Effect of Uncoated SPIONs on hiPSC-Differentiated Endothelial Cells. International Journal of Molecular Sciences, 2019, 20, 3536.	4.1	2
39	Applications of Image Registration in Human Genome Research. Lecture Notes in Computer Science, 2004, , 376-384.	1.3	2
40	Tissue Reconstruction Based on Deformation of Dual Simplex Meshes. Lecture Notes in Computer Science, 2003, , 514-523.	1.3	1
41	A Fast Level Set-Like Algorithm with Topology Preserving Constraint. Lecture Notes in Computer Science, 2009, , 930-938.	1.3	1
42	Particle Tracking Accuracy Measurement Based on Comparison of Linear Oriented Forests. , 2017, , .		0
43	Improved 3D Reconstruction of Interphase Chromosomes Based on Nonlinear Diffusion Filtering. Mathematics and Visualization, 2007, , 163-172.	0.6	0