Philip Kollmannsberger

List of Publications by Year
in descending order

50 papers	3,363 citations	201674 27 h-index	233421 45 g-index
61 all docs	61 docs citations	61 times ranked	4681 citing authors

#	Article	IF	Citations
1	Detecting ice artefacts in processed macromolecular diffraction data with machine learning. Acta Crystallographica Section D: Structural Biology, 2022, 78, 187-195.	2.3	3
2	Targeted volumetric single-molecule localization microscopy of defined presynaptic structures in brain sections. Communications Biology, 2021, 4, 407.	4.4	10
3	Subgroup-Independent Mapping of Renal Cell Carcinomaâ€"Machine Learning Reveals Prognostic Mitochondrial Gene Signature Beyond Histopathologic Boundaries. Frontiers in Oncology, 2021, 11, 621278.	2.8	31
4	Defining the Basis of Cyanine Phototruncation Enables a New Approach to Single-Molecule Localization Microscopy. ACS Central Science, 2021, 7, 1144-1155.	11.3	47
5	Identifying New Potential Biomarkers in Adrenocortical Tumors Based on mRNA Expression Data Using Machine Learning. Cancers, 2021, 13, 4671.	3.7	12
6	Active zone compaction correlates with presynaptic homeostatic potentiation. Cell Reports, 2021, 37, 109770.	6.4	30
7	Fourier Ring Correlation and Anisotropic Kernel Density Estimation Improve Deep Learning Based SMLM Reconstruction of Microtubules. Frontiers in Bioinformatics, 2021, 1, .	2.1	2
8	Structural Analysis of the Caenorhabditis elegans Dauer Larval Anterior Sensilla by Focused Ion Beam-Scanning Electron Microscopy. Frontiers in Neuroanatomy, 2021, 15, 732520.	1.7	12
9	Haruspex: A Neural Network for the Automatic Identification of Oligonucleotides and Protein Secondary Structure in Cryoâ€Electron Microscopy Maps. Angewandte Chemie, 2020, 132, 14898-14905.	2.0	7
10	Haruspex: A Neural Network for the Automatic Identification of Oligonucleotides and Protein Secondary Structure in Cryoâ€Electron Microscopy Maps. Angewandte Chemie - International Edition, 2020, 59, 14788-14795.	13.8	26
11	Efficient Classification of White Blood Cell Leukemia with Improved Swarm Optimization of Deep Features. Scientific Reports, 2020, 10, 2536.	3.3	159
12	Biological network growth in complex environments: A computational framework. PLoS Computational Biology, 2020, 16, e1008003.	3.2	5
13	Biological network growth in complex environments: A computational framework. , 2020, 16, e1008003.		0
14	Biological network growth in complex environments: A computational framework. , 2020, 16, e1008003.		0
15	Biological network growth in complex environments: A computational framework. , 2020, 16, e1008003.		0
16	Biological network growth in complex environments: A computational framework. , 2020, 16, e1008003.		0
17	Electron tomography of mouse LINC complexes at meiotic telomere attachment sites with and without microtubules. Communications Biology, 2019, 2, 376.	4.4	16
18	Surface tension determines tissue shape and growth kinetics. Science Advances, 2019, 5, eaav9394.	10.3	80

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19	Towards a Connectomic Description of the Osteocyte Lacunocanalicular Network in Bone. Current Osteoporosis Reports, 2019, 17, 186-194.	3.6	44
20	Tensile forces drive a reversible fibroblast-to-myofibroblast transition during tissue growth in engineered clefts. Science Advances, 2018, 4, eaao4881.	10.3	102
21	Automated classification of synaptic vesicles in electron tomograms of C. elegans using machine learning. PLoS ONE, 2018, 13, e0205348.	2.5	8
22	Spatial heterogeneity in the canalicular density of the osteocyte network in human osteons. Bone Reports, 2017, 6, 101-108.	0.4	59
23	The small world of osteocytes: connectomics of the lacuno-canalicular network in bone. New Journal of Physics, 2017, 19, 073019.	2.9	103
24	Coalignment of osteocyte canaliculi and collagen fibers in human osteonal bone. Journal of Structural Biology, 2017, 199, 177-186.	2.8	22
25	FIJI Macro 3D ART VeSElecT: 3D Automated Reconstruction Tool for Vesicle Structures of Electron Tomograms. PLoS Computational Biology, 2017, 13, e1005317.	3.2	13
26	How type 1 fimbriae help Escherichia coli to evade extracellular antibiotics. Scientific Reports, 2016, 6, 18109.	3.3	47
27	Gradual conversion of cellular stress patterns into pre-stressed matrix architecture during <i>in vitro</i> tissue growth. Journal of the Royal Society Interface, 2016, 13, 20160136.	3.4	37
28	Cell sheet mechanics: How geometrical constraints induce the detachment of cell sheets from concave surfaces. Acta Biomaterialia, 2016, 45, 85-97.	8.3	38
29	Shaping tissues by balancing active forces and geometric constraints. Journal Physics D: Applied Physics, 2016, 49, 053001.	2.8	21
30	Fiberâ€Assisted Molding (FAM) of Surfaces with Tunable Curvature to Guide Cell Alignment and Complex Tissue Architecture. Small, 2014, 10, 4851-4857.	10.0	41
31	Geometry as a Factor for Tissue Growth: Towards Shape Optimization of Tissue Engineering Scaffolds. Advanced Healthcare Materials, 2013, 2, 186-194.	7.6	264
32	Mineralization kinetics in murine trabecular bone quantified by time-lapsed in vivo micro-computed tomography. Bone, 2013, 56, 55-60.	2.9	39
33	Architecture of the osteocyte network correlates with bone material quality. Journal of Bone and Mineral Research, 2013, 28, 1837-1845.	2.8	285
34	Bacterial filamentation accelerates colonization of adhesive spots embedded in biopassive surfaces. New Journal of Physics, 2013, 15, 125016.	2.9	29
35	How Linear Tension Converts to Curvature: Geometric Control of Bone Tissue Growth. PLoS ONE, 2012, 7, e36336.	2.5	169
36	The physics of tissue patterning and extracellular matrix organisation: how cells join forces. Soft Matter, 2011, 7, 9549.	2.7	65

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37	Nonlinear viscoelasticity of adherent cells is controlled by cytoskeletal tension. Soft Matter, 2011, 7, 3127-3132.	2.7	124
38	Linear and Nonlinear Rheology of Living Cells. Annual Review of Materials Research, 2011, 41, 75-97.	9.3	336
39	The Heterogeneous Mineral Content of Boneâ€"Using Stochastic Arguments and Simulations to Overcome Experimental Limitations. Journal of Statistical Physics, 2011, 144, 316-331.	1.2	14
40	Vinculin Facilitates Cell Invasion into Three-dimensional Collagen Matrices. Journal of Biological Chemistry, 2010, 285, 13121-13130.	3.4	169
41	Effect of surface pre-treatments on biocompatibility of magnesium. Acta Biomaterialia, 2009, 5, 2783-2789.	8.3	155
42	Filamin A Is Essential for Active Cell Stiffening but not Passive Stiffening under External Force. Biophysical Journal, 2009, 96, 4326-4335.	0.5	98
43	Anchorage of Vinculin to Lipid Membranes Influences Cell Mechanical Properties. Biophysical Journal, 2009, 97, 3105-3112.	0.5	38
44	Active soft glassy rheology of adherent cells. Soft Matter, 2009, 5, 1771.	2.7	62
45	Non-linear Rheology Of Collagen Type I Gels Probed On The Length Scale Of A Migrating Cell. Biophysical Journal, 2009, 96, 522a.	0.5	1
46	Mechano-Coupling and Regulation of Contractility by the Vinculin Tail Domain. Biophysical Journal, 2008, 94, 661-670.	0.5	157
47	Breakdown of the Endothelial Barrier Function in Tumor Cell Transmigration. Biophysical Journal, 2008, 94, 2832-2846.	0.5	107
48	Up-Regulation of Rho/ROCK Signaling in Sarcoma Cells Drives Invasion and Increased Generation of Protrusive Forces. Molecular Cancer Research, 2008, 6, 1410-1420.	3.4	96
49	BaHigh-force magnetic tweezers with force feedback for biological applications. Review of Scientific Instruments, 2007, 78, 114301.	1.3	164
50	DeepCLEM: automated registration for correlative light and electron microscopy using deep learning. F1000Research, 0, 9, 1275.	1.6	4