

AndrÃ© E X Brown

List of Publications by Year in descending order

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46
papers

3,487
citations

279487

23
h-index

214527

47
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69
all docs

69
docs citations

69
times ranked

4849
citing authors

#	ARTICLE	IF	CITATIONS
1	Multiscale Mechanics of Fibrin Polymer: Gel Stretching with Protein Unfolding and Loss of Water. <i>Science</i> , 2009, 325, 741-744.	6.0	346
2	Optimal matrix rigidity for stress-fibre polarization in stem cells. <i>Nature Physics</i> , 2010, 6, 468-473.	6.5	335
3	The Potential for Respiratory Droplet�� Transmissible A/H5N1 Influenza Virus to Evolve in a Mammalian Host. <i>Science</i> , 2012, 336, 1541-1547.	6.0	286
4	A database of <i>Caenorhabditis elegans</i> behavioral phenotypes. <i>Nature Methods</i> , 2013, 10, 877-879.	9.0	280
5	How deeply cells feel: methods for thin gels. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 194116.	0.7	264
6	A dictionary of behavioral motifs reveals clusters of genes affecting <i>Caenorhabditis elegans</i> locomotion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 791-796.	3.3	196
7	Forced Unfolding of Coiled-Coils in Fibrinogen by Single-Molecule AFM. <i>Biophysical Journal</i> , 2007, 92, L39-L41.	0.2	134
8	The role of microtubule movement in bidirectional organelle transport. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 10011-10016.	3.3	131
9	Ethology as a physical science. <i>Nature Physics</i> , 2018, 14, 653-657.	6.5	125
10	Mechanism of Fibrin(ogen) Forced Unfolding. <i>Structure</i> , 2011, 19, 1615-1624.	1.6	114
11	Curvature-Coupled Hydration of Semicrystalline Polymer Amphiphiles Yields flexible Worm Micelles but Favors Rigid Vesicles: Polycaprolactone-Based Block Copolymers. <i>Macromolecules</i> , 2010, 43, 9736-9746.	2.2	111
12	Hyaluronic acid matrices show matrix stiffness in 2D and 3D dictates cytoskeletal order and myosin-II phosphorylation within stem cells. <i>Integrative Biology (United Kingdom)</i> , 2012, 4, 422.	0.6	107
13	An open-source platform for analyzing and sharing worm-behavior data. <i>Nature Methods</i> , 2018, 15, 645-646.	9.0	93
14	Conformational Changes and Signaling in Cell and Matrix Physics. <i>Current Biology</i> , 2009, 19, R781-R789.	1.8	79
15	Cell shape, spreading symmetry, and the polarization of stress-fibers in cells. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 194110.	0.7	75
16	Protein unfolding accounts for the unusual mechanical behavior of fibrin networks. <i>Acta Biomaterialia</i> , 2011, 7, 2374-2383.	4.1	75
17	Increased fidelity of protein synthesis extends lifespan. <i>Cell Metabolism</i> , 2021, 33, 2288-2300.e12.	7.2	66
18	Powerful and interpretable behavioural features for quantitative phenotyping of <i>Caenorhabditis elegans</i> . <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018, 373, 20170375.	1.8	65

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19	Changes in Postural Syntax Characterize Sensory Modulation and Natural Variation of <i>C. elegans</i> Locomotion. <i>PLoS Computational Biology</i> , 2015, 11, e1004322.	1.5	55
20	Enteric neurons increase maternal food intake during reproduction. <i>Nature</i> , 2020, 587, 455-459.	13.7	53
21	Hierarchical compression of <i>Caenorhabditis elegans</i> locomotion reveals phenotypic differences in the organization of behaviour. <i>Journal of the Royal Society Interface</i> , 2016, 13, 20160466.	1.5	43
22	Systemic muscle wasting and coordinated tumour response drive tumourigenesis. <i>Nature Communications</i> , 2020, 11, 4653.	5.8	41
23	Cross-Correlated TIRF/AFM Reveals Asymmetric Distribution of Force-Generating Heads along Self-Assembled, "Synthetic" Myosin Filaments. <i>Biophysical Journal</i> , 2009, 96, 1952-1960.	0.2	32
24	Mechanical properties measured by atomic force microscopy define health biomarkers in ageing <i>C. elegans</i> . <i>Nature Communications</i> , 2020, 11, 1043.	5.8	29
25	Shared behavioral mechanisms underlie <i>C. elegans</i> aggregation and swarming. <i>ELife</i> , 2019, 8, .	2.8	29
26	A terminal selector prevents a Hox transcriptional switch to safeguard motor neuron identity throughout life. <i>ELife</i> , 2020, 9, .	2.8	29
27	Neuropeptides encoded by <i>nlp-49</i> modulate locomotion, arousal and egg-laying behaviours in <i>Caenorhabditis elegans</i> via the receptor SEB-3. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018, 373, 20170368.	1.8	28
28	A <i>C. elegans</i> model of C9orf72-associated ALS/FTD uncovers a conserved role for eIF2D in RAN translation. <i>Nature Communications</i> , 2021, 12, 6025.	5.8	27
29	Establishment and maintenance of motor neuron identity via temporal modularity in terminal selector function. <i>ELife</i> , 2020, 9, .	2.8	24
30	Exon-skipped dystrophins for treatment of Duchenne muscular dystrophy: Mass spectrometry mapping of most exons and cooperative domain designs based on single molecule mechanics. <i>Cytoskeleton</i> , 2010, 67, 796-807.	1.0	20
31	Behavioral fingerprints predict insecticide and anthelmintic mode of action. <i>Molecular Systems Biology</i> , 2021, 17, e10267.	3.2	20
32	Megapixel camera arrays enable high-resolution animal tracking in multiwell plates. <i>Communications Biology</i> , 2022, 5, 253.	2.0	18
33	Multidimensional phenotyping predicts lifespan and quantifies health in <i>Caenorhabditis elegans</i> . <i>PLoS Computational Biology</i> , 2020, 16, e1008002.	1.5	16
34	Deriving Shape-Based Features for <i>C. elegans</i> Locomotion Using Dimensionality Reduction Methods. <i>Frontiers in Behavioral Neuroscience</i> , 2016, 10, 159.	1.0	13
35	Measuring <i>Caenorhabditis elegans</i> Spatial Foraging and Food Intake Using Bioluminescent Bacteria. <i>Genetics</i> , 2020, 214, 577-587.	1.2	13
36	Model-Independent Phenotyping of <i>C. elegans</i> Locomotion Using Scale-Invariant Feature Transform. <i>PLoS ONE</i> , 2015, 10, e0122326.	1.1	10

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37	Connectome to behaviour: modelling <i>Caenorhabditis elegans</i> at cellular resolution. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2018, 373, 20170366.	1.8	9
38	Comparison of solitary and collective foraging strategies of <i>Caenorhabditis elegans</i> in patchy food distributions. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2020, 375, 20190382.	1.8	7
39	Tissue-specific isoforms of the single <i>C. elegans</i> Ryanodine receptor gene <i>unc-68</i> control specific functions. <i>PLoS Genetics</i> , 2020, 16, e1009102.	1.5	7
40	Predicting path from undulations for <i>C. elegans</i> using linear and nonlinear resistive force theory. <i>Physical Biology</i> , 2017, 14, 025001.	0.8	6
41	Glassy worm-like micelles in solvent and shear mediated shape transitions. <i>Soft Matter</i> , 2018, 14, 4194-4203.	1.2	6
42	Bi-allelic loss-of-function variants in <i>PPFIBP1</i> cause a neurodevelopmental disorder with microcephaly, epilepsy, and periventricular calcifications. <i>American Journal of Human Genetics</i> , 2022, 109, 1421-1435.	2.6	6
43	Identification of <i>C. elegans</i> Strains Using a Fully Convolutional Neural Network on Behavioural Dynamics. <i>Lecture Notes in Computer Science</i> , 2019, , 455-464.	1.0	5
44	Unrestrained worms bridled by the light. <i>Nature Methods</i> , 2011, 8, 129-130.	9.0	3
45	Tracking Single <i>C. elegans</i> Using a USB Microscope on a Motorized Stage. <i>Methods in Molecular Biology</i> , 2015, 1327, 181-197.	0.4	3
46	Quantitative behavioural phenotyping to investigate anaesthesia induced neurobehavioural impairment. <i>Scientific Reports</i> , 2021, 11, 19398.	1.6	2