Nick S Jones

List of Publications by Year
in descending order

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82 papers	4,623 citations	126907 33 h-index	114465 63 g-index
91 all docs	91 docs citations	91 times ranked	6409 citing authors

#	Article	IF	Citations
1	Soundscapes predict species occurrence in tropical forests. Oikos, 2022, 2022, .	2.7	17
2	Bladder pressure encoding by sacral dorsal root ganglion fibres: implications for decoding. Journal of Neural Engineering, 2021, 18, 016014.	3.5	2
3	Discovering Cellular Mitochondrial Heteroplasmy Heterogeneity with Single Cell RNA and ATAC Sequencing. Biology, 2021, 10, 503.	2.8	6
4	Inference and influence of network structure using snapshot social behavior without network data. Science Advances, 2021, 7, .	10.3	10
5	Cell competition acts as a purifying selection to eliminate cells with mitochondrial defects during early mouse development. Nature Metabolism, 2021, 3, 1091-1108.	11.9	33
6	Influencing dynamics on social networks without knowledge of network microstructure. Journal of the Royal Society Interface, 2021, 18, 20210435.	3.4	4
7	Mitochondrial DNA heteroplasmy is modulated during oocyte development propagating mutation transmission. Science Advances, 2021, 7, eabi5657.	10.3	22
8	Visualizing, quantifying, and manipulating mitochondrial DNA in vivo. Journal of Biological Chemistry, 2020, 295, 17588-17601.	3.4	14
9	Cell identity and nucleo-mitochondrial genetic context modulate OXPHOS performance and determine somatic heteroplasmy dynamics. Science Advances, 2020, 6, eaba5345.	10.3	31
10	Inference of a universal social scale and segregation measures using social connectivity kernels. Journal of the Royal Society Interface, 2020, 17, 20200638.	3.4	2
11	A mechanistic explanation of the transition to simple multicellularity in fungi. Nature Communications, 2020, 11, 2594.	12.8	15
12	Characterizing soundscapes across diverse ecosystems using a universal acoustic feature set. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17049-17055.	7.1	93
13	A self-organizing, living library of time-series data. Scientific Data, 2020, 7, 213.	5.3	7
14	SAFE Acoustics: An openâ€source, realâ€time ecoâ€acoustic monitoring network in the tropical rainforests of Borneo. Methods in Ecology and Evolution, 2020, 11, 1182-1185.	5.2	12
15	Community detection in networks without observing edges. Science Advances, 2020, 6, eaav1478.	10.3	35
16	catch22: CAnonical Time-series CHaracteristics. Data Mining and Knowledge Discovery, 2019, 33, 1821-1852.	3.7	166
17	Energetic costs of cellular and therapeutic control of stochastic mitochondrial DNA populations. PLoS Computational Biology, 2019, 15, e1007023.	3.2	20
18	Mitochondrial Network State Scales mtDNA Genetic Dynamics. Genetics, 2019, 212, 1429-1443.	2.9	46

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19	Precision identification of high-risk phenotypes and progression pathways in severe malaria without requiring longitudinal data. Npj Digital Medicine, 2019, 2, 63.	10.9	7
20	Regulation of Mother-to-Offspring Transmission of mtDNA Heteroplasmy. Cell Metabolism, 2019, 30, 1120-1130.e5.	16.2	66
21	Efficient peripheral nerve firing characterisation through massive feature extraction. , 2019, , .		1
22	The homeostatic dynamics of feeding behaviour identify novel mechanisms of anorectic agents. PLoS Biology, 2019, 17, e3000482.	5.6	5
23	Frequency and signature of somatic variants in 1461 human brain exomes. Genetics in Medicine, 2019, 21, 904-912.	2.4	20
24	PyPNS: Multiscale Simulation of a Peripheral Nerve in Python. Neuroinformatics, 2019, 17, 63-81.	2.8	23
25	Quantitative approaches to energy and glucose homeostasis: machine learning and modelling for precision understanding and prediction. Journal of the Royal Society Interface, 2018, 15, 20170736.	3.4	9
26	Oligogenic genetic variation of neurodegenerative disease genes in 980 postmortem human brains. Journal of Neurology, Neurosurgery and Psychiatry, 2018, 89, 813-816.	1.9	17
27	Quantitation of ER Structure and Function. Methods in Molecular Biology, 2018, 1691, 43-66.	0.9	2
28	Co-occurrence simplicial complexes in mathematics: identifying the holes of knowledge. Applied Network Science, 2018, 3, 37.	1.5	10
29	Large algebraic connectivity fluctuations in spatial network ensembles imply a predictive advantage from node location information. Physical Review E, 2018, 98, .	2.1	1
30	Robust, realâ€time and autonomous monitoring of ecosystems with an open, lowâ€cost, networked device. Methods in Ecology and Evolution, 2018, 9, 2383-2387.	5.2	59
31	High prevalence of focal and multi-focal somatic genetic variants in the human brain. Nature Communications, 2018, 9, 4257.	12.8	54
32	Large-scale genetic analysis reveals mammalian mtDNA heteroplasmy dynamics and variance increase through lifetimes and generations. Nature Communications, 2018, 9, 2488.	12.8	51
33	Mitochondrial Heterogeneity. Frontiers in Genetics, 2018, 9, 718.	2.3	89
34	Biochemical Machines for the Interconversion of Mutual Information and Work. Physical Review Letters, 2017, 118, 028101.	7.8	46
35	Looplessness in networks is linked to trophic coherence. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5618-5623.	7.1	30
36	Mitochondrial heterogeneity, metabolic scaling and cell death. BioEssays, 2017, 39, 1700001.	2.5	18

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37	The Mycelium as a Network. Microbiology Spectrum, 2017, 5, .	3.0	57
38	Automated analysis ofPhysarumnetwork structure and dynamics. Journal Physics D: Applied Physics, 2017, 50, 254005.	2.8	19
39	hctsa : A Computational Framework for Automated Time-Series Phenotyping Using Massive Feature Extraction. Cell Systems, 2017, 5, 527-531.e3.	6.2	197
40	Designing the optimal bit: balancing energetic cost, speed and reliability. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170117.	2.1	6
41	Mitochondrial DNA density homeostasis accounts for a threshold effect in a cybrid model of a human mitochondrial disease. Biochemical Journal, 2017, 474, 4019-4034.	3.7	13
42	Toward Precision Healthcare: Context and Mathematical Challenges. Frontiers in Physiology, 2017, 8, 136.	2.8	28
43	Forecasted trends in vaccination coverage and correlations with socioeconomic factors: a global time-series analysis over 30 years. The Lancet Global Health, 2016, 4, e726-e735.	6.3	69
44	The State of Vaccine Confidence 2016: Global Insights Through a 67-Country Survey. EBioMedicine, 2016, 12, 295-301.	6.1	785
45	Energetic Constraints on Fungal Growth. American Naturalist, 2016, 187, E27-E40.	2.1	20
46	Evolution of Cell-to-Cell Variability in Stochastic, Controlled, Heteroplasmic mtDNA Populations. American Journal of Human Genetics, 2016, 99, 1150-1162.	6.2	37
47	A functional connectome: regulation of Wnt/TCF-dependent transcription by pairs of pathway activators. Molecular Cancer, 2015, 14, 206.	19.2	15
48	What is the function of mitochondrial networks? A theoretical assessment of hypotheses and proposal for future research. BioEssays, 2015, 37, 687-700.	2.5	122
49	Closed-form stochastic solutions for non-equilibrium dynamics and inheritance of cellular components over many cell divisions. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150050.	2.1	39
50	Stochastic modelling, Bayesian inference, and new in vivo measurements elucidate the debated mtDNA bottleneck mechanism. ELife, 2015, 4, e07464.	6.0	83
51	Highly Comparative Feature-Based Time-Series Classification. IEEE Transactions on Knowledge and Data Engineering, 2014, 26, 3026-3037.	5.7	225
52	How modular structure can simplify tasks on networks: parameterizing graph optimization by fast local community detection. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140224.	2.1	1
53	Explicit Tracking of Uncertainty Increases the Power of Quantitative Rule-of-Thumb Reasoning in Cell Biology. Biophysical Journal, 2014, 107, 2612-2617.	0.5	19
54	The â€˜mitoflashâ€™ probe cpYFP does not respond to superoxide. Nature, 2014, 514, E12-E14.	27.8	109

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55	Errors in reported degrees and respondent driven sampling: Implications for bias. Drug and Alcohol Dependence, 2014, 142, 120-126.	3.2	33
56	mtDNA Segregation in Heteroplasmic Tissues Is Common InÂVivo and Modulated by Haplotype Differences and Developmental Stage. Cell Reports, 2014, 7, 2031-2041.	6.4	99
57	FRIENDLY Regulates Mitochondrial Distribution, Fusion, and Quality Control in Arabidopsis. Plant Physiology, 2014, 166, 808-828.	4.8	93
58	Signal processing for molecular and cellular biological physics: an emerging field. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20110546.	3.4	10
59	Function-valued traits in evolution. Journal of the Royal Society Interface, 2013, 10, 20121032.	3.4	16
60	Evolutionary inference for function-valued traits: Gaussian process regression on phylogenies. Journal of the Royal Society Interface, 2013, 10, 20120616.	3.4	18
61	Highly comparative time-series analysis: the empirical structure of time series and their methods. Journal of the Royal Society Interface, 2013, 10, 20130048.	3.4	270
62	Inference for the physical sciences. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120493.	3.4	1
63	Mitochondrial Variability as a Source of Extrinsic Cellular Noise. PLoS Computational Biology, 2012, 8, e1002416.	3.2	104
64	Taxonomies of networks from community structure. Physical Review E, 2012, 86, 036104-36104.	2.1	79
65	Advection, diffusion, and delivery over a network. Physical Review E, 2012, 86, 021905.	2.1	41
66	Analysis of fungal networks. Fungal Biology Reviews, 2012, 26, 12-29.	4.7	103
67	Pulsing of Membrane Potential in Individual Mitochondria: A Stress-Induced Mechanism to Regulate Respiratory Bioenergetics in Arabidopsis. Plant Cell, 2012, 24, 1188-1201.	6.6	107
68	Dynamical clustering of exchange rates. Quantitative Finance, 2012, 12, 1493-1520.	1.7	50
69	Steps and Bumps: Precision Extraction of Discrete States of Molecular Machines. Biophysical Journal, 2011, 101, 477-485.	0.5	29
70	Temporal evolution of financial-market correlations. Physical Review E, 2011, 84, 026109.	2.1	82
71	Imaging differentiates progressive supranuclear palsy from Parkinson disease. Nature Reviews Neurology, 2011, 7, 186-186.	10.1	3
72	The function of communities in protein interaction networks at multiple scales. BMC Systems Biology, 2010, 4, 100.	3.0	79

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73	Structural dynamics and robustness of food webs. Ecology Letters, 2010, 13, 891-899.	6.4	125
74	Sparse bayesian step-filtering for high-throughput analysis of molecular machine dynamics. Nature Precedings, 2010, , .	0.1	2
75	Growth-induced mass flows in fungal networks. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 3265-3274.	2.6	49
76	Revisiting Date and Party Hubs: Novel Approaches to Role Assignment in Protein Interaction Networks. PLoS Computational Biology, 2010, 6, e1000817.	3.2	128
77	Connecting Variability in Global Transcription Rate to Mitochondrial Variability. PLoS Biology, 2010, 8, e1000560.	5.6	115
78	A general approach for segmenting elongated and stubby biological objects: Extending a chord length transform with the Radon transform. , 2010, , .		3
79	Dynamic communities in multichannel data: An application to the foreign exchange market during the 2007â€“2008 credit crisis. Chaos, 2009, 19, 033119.	2.5	64
80	Key Distillation and the Secret-Bit Fraction. IEEE Transactions on Information Theory, 2008, 54, 680-691.	2.4	3
81	Using the Memories of Multiscale Machines to Characterize Complex Systems. Physical Review Letters, 2008, 100, 208702.	7.8	2
82	The Mycelium as a Network. , 0, , 335-367.		15