

# Nick S Jones

## List of Publications by Year in descending order

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Version: 2024-02-01

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	The State of Vaccine Confidence 2016: Global Insights Through a 67-Country Survey. <i>EBioMedicine</i> , 2016, 12, 295-301.	6.1	785
2	Highly comparative time-series analysis: the empirical structure of time series and their methods. <i>Journal of the Royal Society Interface</i> , 2013, 10, 20130048.	3.4	270
3	Highly Comparative Feature-Based Time-Series Classification. <i>IEEE Transactions on Knowledge and Data Engineering</i> , 2014, 26, 3026-3037.	5.7	225
4	hctsa : A Computational Framework for Automated Time-Series Phenotyping Using Massive Feature Extraction. <i>Cell Systems</i> , 2017, 5, 527-531.e3.	6.2	197
5	catch22: CAnonical Time-series CHaracteristics. <i>Data Mining and Knowledge Discovery</i> , 2019, 33, 1821-1852.	3.7	166
6	Revisiting Date and Party Hubs: Novel Approaches to Role Assignment in Protein Interaction Networks. <i>PLoS Computational Biology</i> , 2010, 6, e1000817.	3.2	128
7	Structural dynamics and robustness of food webs. <i>Ecology Letters</i> , 2010, 13, 891-899.	6.4	125
8	What is the function of mitochondrial networks? A theoretical assessment of hypotheses and proposal for future research. <i>BioEssays</i> , 2015, 37, 687-700.	2.5	122
9	Connecting Variability in Global Transcription Rate to Mitochondrial Variability. <i>PLoS Biology</i> , 2010, 8, e1000560.	5.6	115
10	The "mitoflash"™ probe cpYFP does not respond to superoxide. <i>Nature</i> , 2014, 514, E12-E14.	27.8	109
11	Pulsing of Membrane Potential in Individual Mitochondria: A Stress-Induced Mechanism to Regulate Respiratory Bioenergetics in <i>Arabidopsis</i> . <i>Plant Cell</i> , 2012, 24, 1188-1201.	6.6	107
12	Mitochondrial Variability as a Source of Extrinsic Cellular Noise. <i>PLoS Computational Biology</i> , 2012, 8, e1002416.	3.2	104
13	Analysis of fungal networks. <i>Fungal Biology Reviews</i> , 2012, 26, 12-29.	4.7	103
14	mtDNA Segregation in Heteroplasmic Tissues Is Common In Vivo and Modulated by Haplotype Differences and Developmental Stage. <i>Cell Reports</i> , 2014, 7, 2031-2041.	6.4	99
15	FRIENDLY Regulates Mitochondrial Distribution, Fusion, and Quality Control in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2014, 166, 808-828.	4.8	93
16	Characterizing soundscapes across diverse ecosystems using a universal acoustic feature set. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 17049-17055.	7.1	93
17	Mitochondrial Heterogeneity. <i>Frontiers in Genetics</i> , 2018, 9, 718.	2.3	89
18	Stochastic modelling, Bayesian inference, and new in vivo measurements elucidate the debated mtDNA bottleneck mechanism. <i>ELife</i> , 2015, 4, e07464.	6.0	83

#	ARTICLE	IF	CITATIONS
19	Temporal evolution of financial-market correlations. <i>Physical Review E</i> , 2011, 84, 026109.	2.1	82
20	The function of communities in protein interaction networks at multiple scales. <i>BMC Systems Biology</i> , 2010, 4, 100.	3.0	79
21	Taxonomies of networks from community structure. <i>Physical Review E</i> , 2012, 86, 036104-36104.	2.1	79
22	Forecasted trends in vaccination coverage and correlations with socioeconomic factors: a global time-series analysis over 30 years. <i>The Lancet Global Health</i> , 2016, 4, e726-e735.	6.3	69
23	Regulation of Mother-to-Offspring Transmission of mtDNA Heteroplasmy. <i>Cell Metabolism</i> , 2019, 30, 1120-1130.e5.	16.2	66
24	Dynamic communities in multichannel data: An application to the foreign exchange market during the 2007–2008 credit crisis. <i>Chaos</i> , 2009, 19, 033119.	2.5	64
25	Robust, real-time and autonomous monitoring of ecosystems with an open, low-cost, networked device. <i>Methods in Ecology and Evolution</i> , 2018, 9, 2383-2387.	5.2	59
26	The Mycelium as a Network. <i>Microbiology Spectrum</i> , 2017, 5, .	3.0	57
27	High prevalence of focal and multi-focal somatic genetic variants in the human brain. <i>Nature Communications</i> , 2018, 9, 4257.	12.8	54
28	Large-scale genetic analysis reveals mammalian mtDNA heteroplasmy dynamics and variance increase through lifetimes and generations. <i>Nature Communications</i> , 2018, 9, 2488.	12.8	51
29	Dynamical clustering of exchange rates. <i>Quantitative Finance</i> , 2012, 12, 1493-1520.	1.7	50
30	Growth-induced mass flows in fungal networks. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2010, 277, 3265-3274.	2.6	49
31	Biochemical Machines for the Interconversion of Mutual Information and Work. <i>Physical Review Letters</i> , 2017, 118, 028101.	7.8	46
32	Mitochondrial Network State Scales mtDNA Genetic Dynamics. <i>Genetics</i> , 2019, 212, 1429-1443.	2.9	46
33	Advection, diffusion, and delivery over a network. <i>Physical Review E</i> , 2012, 86, 021905.	2.1	41
34	Closed-form stochastic solutions for non-equilibrium dynamics and inheritance of cellular components over many cell divisions. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015, 471, 20150050.	2.1	39
35	Evolution of Cell-to-Cell Variability in Stochastic, Controlled, Heteroplasmic mtDNA Populations. <i>American Journal of Human Genetics</i> , 2016, 99, 1150-1162.	6.2	37
36	Community detection in networks without observing edges. <i>Science Advances</i> , 2020, 6, eaav1478.	10.3	35

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37	Errors in reported degrees and respondent driven sampling: Implications for bias. Drug and Alcohol Dependence, 2014, 142, 120-126.	3.2	33
38	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
39	Cell identity and nucleo-mitochondrial genetic context modulate OXPHOS performance and determine somatic heteroplasmy dynamics. Science Advances, 2020, 6, eaba5345.	10.3	31
40	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
41	Steps and Bumps: Precision Extraction of Discrete States of Molecular Machines. Biophysical Journal, 2011, 101, 477-485.	0.5	29
42	Toward Precision Healthcare: Context and Mathematical Challenges. Frontiers in Physiology, 2017, 8, 136.	2.8	28
43	PyPNS: Multiscale Simulation of a Peripheral Nerve in Python. Neuroinformatics, 2019, 17, 63-81.	2.8	23
44	Mitochondrial DNA heteroplasmy is modulated during oocyte development propagating mutation transmission. Science Advances, 2021, 7, eabi5657.	10.3	22
45	Energetic Constraints on Fungal Growth. American Naturalist, 2016, 187, E27-E40.	2.1	20
46	Energetic costs of cellular and therapeutic control of stochastic mitochondrial DNA populations. PLoS Computational Biology, 2019, 15, e1007023.	3.2	20
47	Frequency and signature of somatic variants in 1461 human brain exomes. Genetics in Medicine, 2019, 21, 904-912.	2.4	20
48	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
49	Automated analysis of <i>Physarum</i> network structure and dynamics. Journal Physics D: Applied Physics, 2017, 50, 254005.	2.8	19
50	Evolutionary inference for function-valued traits: Gaussian process regression on phylogenies. Journal of the Royal Society Interface, 2013, 10, 20120616.	3.4	18
51	Mitochondrial heterogeneity, metabolic scaling and cell death. BioEssays, 2017, 39, 1700001.	2.5	18
52	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
53	Soundscapes predict species occurrence in tropical forests. Oikos, 2022, 2022, .	2.7	17
54	Function-valued traits in evolution. Journal of the Royal Society Interface, 2013, 10, 20121032.	3.4	16

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55	A functional connectome: regulation of Wnt/TCF-dependent transcription by pairs of pathway activators. <i>Molecular Cancer</i> , 2015, 14, 206.	19.2	15
56	The Mycelium as a Network. , 0, , 335-367.		15
57	A mechanistic explanation of the transition to simple multicellularity in fungi. <i>Nature Communications</i> , 2020, 11, 2594.	12.8	15
58	Visualizing, quantifying, and manipulating mitochondrial DNA in vivo. <i>Journal of Biological Chemistry</i> , 2020, 295, 17588-17601.	3.4	14
59	Mitochondrial DNA density homeostasis accounts for a threshold effect in a cybrid model of a human mitochondrial disease. <i>Biochemical Journal</i> , 2017, 474, 4019-4034.	3.7	13
60	SAFE Acoustics: An open-source, real-time eco-acoustic monitoring network in the tropical rainforests of Borneo. <i>Methods in Ecology and Evolution</i> , 2020, 11, 1182-1185.	5.2	12
61	Signal processing for molecular and cellular biological physics: an emerging field. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20110546.	3.4	10
62	Co-occurrence simplicial complexes in mathematics: identifying the holes of knowledge. <i>Applied Network Science</i> , 2018, 3, 37.	1.5	10
63	Inference and influence of network structure using snapshot social behavior without network data. <i>Science Advances</i> , 2021, 7, .	10.3	10
64	Quantitative approaches to energy and glucose homeostasis: machine learning and modelling for precision understanding and prediction. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20170736.	3.4	9
65	Precision identification of high-risk phenotypes and progression pathways in severe malaria without requiring longitudinal data. <i>Npj Digital Medicine</i> , 2019, 2, 63.	10.9	7
66	A self-organizing, living library of time-series data. <i>Scientific Data</i> , 2020, 7, 213.	5.3	7
67	Designing the optimal bit: balancing energetic cost, speed and reliability. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2017, 473, 20170117.	2.1	6
68	Discovering Cellular Mitochondrial Heteroplasmy Heterogeneity with Single Cell RNA and ATAC Sequencing. <i>Biology</i> , 2021, 10, 503.	2.8	6
69	The homeostatic dynamics of feeding behaviour identify novel mechanisms of anorectic agents. <i>PLoS Biology</i> , 2019, 17, e3000482.	5.6	5
70	Influencing dynamics on social networks without knowledge of network microstructure. <i>Journal of the Royal Society Interface</i> , 2021, 18, 20210435.	3.4	4
71	Key Distillation and the Secret-Bit Fraction. <i>IEEE Transactions on Information Theory</i> , 2008, 54, 680-691.	2.4	3
72	A general approach for segmenting elongated and stubby biological objects: Extending a chord length transform with the Radon transform. , 2010, , .		3

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73	Imaging differentiates progressive supranuclear palsy from Parkinson disease. Nature Reviews Neurology, 2011, 7, 186-186.	10.1	3
74	Using the Memories of Multiscale Machines to Characterize Complex Systems. Physical Review Letters, 2008, 100, 208702.	7.8	2
75	Sparse bayesian step-filtering for high-throughput analysis of molecular machine dynamics. Nature Precedings, 2010, , .	0.1	2
76	Quantitation of ER Structure and Function. Methods in Molecular Biology, 2018, 1691, 43-66.	0.9	2
77	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
78	Bladder pressure encoding by sacral dorsal root ganglion fibres: implications for decoding. Journal of Neural Engineering, 2021, 18, 016014.	3.5	2
79	Inference for the physical sciences. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120493.	3.4	1
80	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
81	Large algebraic connectivity fluctuations in spatial network ensembles imply a predictive advantage from node location information. Physical Review E, 2018, 98, .	2.1	1
82	Efficient peripheral nerve firing characterisation through massive feature extraction. , 2019, , .		1