

Saket Navlakha

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

44
papers

1,132
citations

16
h-index

33
g-index

48
ext. papers

1,427
ext. citations

6.6
avg, IF

4.93
L-index

#	Paper	IF	Citations
44	A feedback control principle common to several biological and engineered systems.. <i>Journal of the Royal Society Interface</i> , 2022 , 19, 20210711	4.1	0
43	Neural network features distinguish chemosensory stimuli in <i>Caenorhabditis elegans</i> . <i>PLoS Computational Biology</i> , 2021 , 17, e1009591	5	1
42	Better tired than lost: Turtle ant trail networks favor coherence over short edges. <i>PLoS Computational Biology</i> , 2021 , 17, e1009523	5	0
41	Projecting COVID-19 disease severity in cancer patients using purposefully-designed machine learning. <i>BMC Infectious Diseases</i> , 2021 , 21, 391	4	3
40	A Correspondence Between Normalization Strategies in Artificial and Biological Neural Networks. <i>Neural Computation</i> , 2021 , 33, 3179-3203	2.9	0
39	Branch-Pipe: Improving Graph Skeletonization around Branch Points in 3D Point Clouds. <i>Remote Sensing</i> , 2021 , 13, 3802	5	
38	Habituation as a neural algorithm for online odor discrimination. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 12402-12410	11.5	2
37	A Statistical Growth Property of Plant Root Architectures. <i>Plant Phenomics</i> , 2020 , 2020, 2073723	7	1
36	Plant 3D (P3D): a plant phenotyping toolkit for 3D point clouds. <i>Bioinformatics</i> , 2020 , 36, 3949-3950	7.2	5
35	Reply to Semelidou and Skoulakis: "Short-term" habituation has multiple distinct mechanisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 20373-20374	11.5	
34	Network trade-offs and homeostasis in Arabidopsis shoot architectures. <i>PLoS Computational Biology</i> , 2019 , 15, e1007325	5	0
33	Adjustment in tumbling rates improves bacterial chemotaxis on obstacle-laden terrains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 11770-11775	11.5	5
32	Travel in city road networks follows similar transport trade-off principles to neural and plant arbors. <i>Journal of the Royal Society Interface</i> , 2019 , 16, 20190041	4.1	4
31	Neural arbors are Pareto optimal. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019 , 286, 20182727	4.7	6
30	A bacterial based distributed gradient descent model for mass scale evacuations. <i>Swarm and Evolutionary Computation</i> , 2019 , 46, 97-103	9.8	2
29	Machine Learning Approaches to Improve Three Basic Plant Phenotyping Tasks Using Three-Dimensional Point Clouds. <i>Plant Physiology</i> , 2019 , 181, 1425-1440	6.6	18
28	TrpM8-mediated somatosensation in mouse neocortex. <i>Journal of Comparative Neurology</i> , 2018 , 526, 1444-1456	3.4	8

27	Network Design and the Brain. <i>Trends in Cognitive Sciences</i> , 2018 , 22, 64-78	14	15
26	Evidence of Rentian Scaling of Functional Modules in Diverse Biological Networks. <i>Neural Computation</i> , 2018 , 30, 2210-2244	2.9	3
25	A distributed algorithm to maintain and repair the trail networks of arboreal ants. <i>Scientific Reports</i> , 2018 , 8, 9297	4.9	13
24	Predicting age from the transcriptome of human dermal fibroblasts. <i>Genome Biology</i> , 2018 , 19, 221	18.3	69
23	A neural data structure for novelty detection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 13093-13098	11.5	13
22	Using Inspiration from Synaptic Plasticity Rules to Optimize Traffic Flow in Distributed Engineered Networks. <i>Neural Computation</i> , 2017 , 29, 1204-1228	2.9	7
21	Learning the Structural Vocabulary of a Network. <i>Neural Computation</i> , 2017 , 29, 287-312	2.9	2
20	High-Resolution Laser Scanning Reveals Plant Architectures that Reflect Universal Network Design Principles. <i>Cell Systems</i> , 2017 , 5, 53-62.e3	10.6	22
19	A neural algorithm for a fundamental computing problem. <i>Science</i> , 2017 , 358, 793-796	33.3	77
18	A Statistical Description of Plant Shoot Architecture. <i>Current Biology</i> , 2017 , 27, 2078-2088.e3	6.3	18
17	Distributed information processing in biological and computational systems. <i>Communications of the ACM</i> , 2015 , 58, 94-102	2.5	54
16	MassExodus: modeling evolving networks in harsh environments. <i>Data Mining and Knowledge Discovery</i> , 2015 , 29, 1211-1232	5.6	3
15	Decreasing-Rate Pruning Optimizes the Construction of Efficient and Robust Distributed Networks. <i>PLoS Computational Biology</i> , 2015 , 11, e1004347	5	27
14	Unbiased, High-Throughput Electron Microscopy Analysis of Experience-Dependent Synaptic Changes in the Neocortex. <i>Journal of Neuroscience</i> , 2015 , 35, 16450-62	6.6	15
13	Topological properties of robust biological and computational networks. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20140283	4.1	21
12	Unsupervised segmentation of noisy electron microscopy images using salient watersheds and region merging. <i>BMC Bioinformatics</i> , 2013 , 14, 294	3.6	9
11	A high-throughput framework to detect synapses in electron microscopy images. <i>Bioinformatics</i> , 2013 , 29, i9-17	7.2	14
10	A network-based approach for predicting missing pathway interactions. <i>PLoS Computational Biology</i> , 2012 , 8, e1002640	5	25

9	Algorithms in nature: the convergence of systems biology and computational thinking. <i>Molecular Systems Biology</i> , 2011 , 7, 546	12.2	66
8	Network archaeology: uncovering ancient networks from present-day interactions. <i>PLoS Computational Biology</i> , 2011 , 7, e1001119	5	50
7	Finding biologically accurate clusterings in hierarchical tree decompositions using the variation of information. <i>Journal of Computational Biology</i> , 2010 , 17, 503-16	1.7	22
6	The power of protein interaction networks for associating genes with diseases. <i>Bioinformatics</i> , 2010 , 26, 1057-63	7.2	253
5	Alignment and clustering of phylogenetic markers--implications for microbial diversity studies. <i>BMC Bioinformatics</i> , 2010 , 11, 152	3.6	53
4	Exploring biological network dynamics with ensembles of graph partitions. <i>Pacific Symposium on Biocomputing Pacific Symposium on Biocomputing</i> , 2010 , 166-77	1.3	7
3	Revealing biological modules via graph summarization. <i>Journal of Computational Biology</i> , 2009 , 16, 253-64	6.7	40
2	Graph summarization with bounded error 2008 ,		178
1	Better tired than lost: turtle ant trail networks favor coherence over short edges		1