Saket Navlakha

List of Publications by Citations

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	The power of protein interaction networks for associating genes with diseases. *Bioinformatics*, **2010**, 26, 1057-63	7.2	253
43	Graph summarization with bounded error **2008**,		178
42	A neural algorithm for a fundamental computing problem. *Science*, **2017**, 358, 793-796	33.3	77
41	Predicting age from the transcriptome of human dermal fibroblasts. *Genome Biology*, **2018**, 19, 221	18.3	69
40	Algorithms in nature: the convergence of systems biology and computational thinking. *Molecular Systems Biology*, **2011**, 7, 546	12.2	66
39	Distributed information processing in biological and computational systems. *Communications of the ACM*, **2015**, 58, 94-102	2.5	54
38	Alignment and clustering of phylogenetic markers--implications for microbial diversity studies. *BMC Bioinformatics*, **2010**, 11, 152	3.6	53
37	Network archaeology: uncovering ancient networks from present-day interactions. *PLoS Computational Biology*, **2011**, 7, e1001119	5	50
36	Revealing biological modules via graph summarization. *Journal of Computational Biology*, **2009**, 16, 253-64	1.7	40
35	Decreasing-Rate Pruning Optimizes the Construction of Efficient and Robust Distributed Networks. *PLoS Computational Biology*, **2015**, 11, e1004347	5	27
34	A network-based approach for predicting missing pathway interactions. *PLoS Computational Biology*, **2012**, 8, e1002640	5	25
33	High-Resolution Laser Scanning Reveals Plant Architectures that Reflect Universal Network Design Principles. *Cell Systems*, **2017**, 5, 53-62.e3	10.6	22
32	Finding biologically accurate clusterings in hierarchical tree decompositions using the variation of information. *Journal of Computational Biology*, **2010**, 17, 503-16	1.7	22
31	Topological properties of robust biological and computational networks. *Journal of the Royal Society Interface*, **2014**, 11, 20140283	4.1	21
30	Machine Learning Approaches to Improve Three Basic Plant Phenotyping Tasks Using Three-Dimensional Point Clouds. *Plant Physiology*, **2019**, 181, 1425-1440	6.6	18
29	A Statistical Description of Plant Shoot Architecture. *Current Biology*, **2017**, 27, 2078-2088.e3	6.3	18
28	Network Design and the Brain. *Trends in Cognitive Sciences*, **2018**, 22, 64-78	14	15

27	Unbiased, High-Throughput Electron Microscopy Analysis of Experience-Dependent Synaptic Changes in the Neocortex. *Journal of Neuroscience*, **2015**, 35, 16450-62	6.6	15
26	A high-throughput framework to detect synapses in electron microscopy images. *Bioinformatics*, **2013**, 29, i9-17	7.2	14
25	A distributed algorithm to maintain and repair the trail networks of arboreal ants. *Scientific Reports*, **2018**, 8, 9297	4.9	13
24	A neural data structure for novelty detection. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 13093-13098	11.5	13
23	Unsupervised segmentation of noisy electron microscopy images using salient watersheds and region merging. *BMC Bioinformatics*, **2013**, 14, 294	3.6	9
22	TrpM8-mediated somatosensation in mouse neocortex. *Journal of Comparative Neurology*, **2018**, 526, 1444-1456	3.4	8
21	Using Inspiration from Synaptic Plasticity Rules to Optimize Traffic Flow in Distributed Engineered Networks. *Neural Computation*, **2017**, 29, 1204-1228	2.9	7
20	Exploring biological network dynamics with ensembles of graph partitions. *Pacific Symposium on Biocomputing Pacific Symposium on Biocomputing*, **2010**, 166-77	1.3	7
19	Neural arbors are Pareto optimal. *Proceedings of the Royal Society B: Biological Sciences*, **2019**, 286, 20182727	4.4	6
18	Adjustment in tumbling rates improves bacterial chemotaxis on obstacle-laden terrains. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 11770-11775	11.5	5
17	Plant 3D (P3D): a plant phenotyping toolkit for 3D point clouds. *Bioinformatics*, **2020**, 36, 3949-3950	7.2	5
16	Travel in city road networks follows similar transport trade-off principles to neural and plant arbors. *Journal of the Royal Society Interface*, **2019**, 16, 20190041	4.1	4
15	MassExodus: modeling evolving networks in harsh environments. *Data Mining and Knowledge Discovery*, **2015**, 29, 1211-1232	5.6	3
14	Evidence of Rentian Scaling of Functional Modules in Diverse Biological Networks. *Neural Computation*, **2018**, 30, 2210-2244	2.9	3
13	Projecting COVID-19 disease severity in cancer patients using purposefully-designed machine learning. *BMC Infectious Diseases*, **2021**, 21, 391	4	3
12	Learning the Structural Vocabulary of a Network. *Neural Computation*, **2017**, 29, 287-312	2.9	2
11	A bacterial based distributed gradient descent model for mass scale evacuations. *Swarm and Evolutionary Computation*, **2019**, 46, 97-103	9.8	2
10	Habituation as a neural algorithm for online odor discrimination. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 12402-12410	11.5	2

9	Neural network features distinguish chemosensory stimuli in Caenorhabditis elegans. *PLoS Computational Biology*, **2021**, 17, e1009591	5	1
8	A Statistical Growth Property of Plant Root Architectures. *Plant Phenomics*, **2020**, 2020, 2073723	7	1
7	Better tired than lost: turtle ant trail networks favor coherence over short edges		1
6	Network trade-offs and homeostasis in Arabidopsis shoot architectures. *PLoS Computational Biology*, **2019**, 15, e1007325	5	0
5	Better tired than lost: Turtle ant trail networks favor coherence over short edges. *PLoS Computational Biology*, **2021**, 17, e1009523	5	0
4	A Correspondence Between Normalization Strategies in Artificial and Biological Neural Networks. *Neural Computation*, **2021**, 33, 3179-3203	2.9	0
3	A feedback control principle common to several biological and engineered systems.. *Journal of the Royal Society Interface*, **2022**, 19, 20210711	4.1	0
2	Reply to Semelidou and Skoulakis: "Short-term" habituation has multiple distinct mechanisms. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 20373-20374	11.5	
1	Branch-Pipe: Improving Graph Skeletonization around Branch Points in 3D Point Clouds. *Remote Sensing*, **2021**, 13, 3802	5	