Joshua T Vogelstein

List of Publications by Year
in descending order

102 papers	7,923 citations	147801 31 h-index	62596 80 g-index
131 all docs	131 docs citations	131 times ranked	12109 citing authors

#	Article	IF	Citations
1	Detection and localization of surgically resectable cancers with a multi-analyte blood test. Science, 2018, 359, 926-930.	12.6	1,872
2	Saturated Reconstruction of a Volume of Neocortex. Cell, 2015, 162, 648-661.	28.9	870
3	Differential connectivity and response dynamics of excitatory and inhibitory neurons in visual cortex. Nature Neuroscience, 2011, 14, 1045-1052.	14.8	439
4	Fast Nonnegative Deconvolution for Spike Train Inference From Population Calcium Imaging. Journal of Neurophysiology, 2010, 104, 3691-3704.	1.8	404
5	Imaging human connectomes at the macroscale. Nature Methods, 2013, 10, 524-539.	19.0	384
6	Whole-brain serial-section electron microscopy in larval zebrafish. Nature, 2017, 545, 345-349.	27.8	282
7	Discovery of Brainwide Neural-Behavioral Maps via Multiscale Unsupervised Structure Learning. Science, 2014, 344, 386-392.	12.6	226
8	Spike Inference from Calcium Imaging Using Sequential Monte Carlo Methods. Biophysical Journal, 2009, 97, 636-655.	0.5	197
9	Dynamically Reconfigurable Silicon Array of Spiking Neurons With Conductance-Based Synapses. IEEE Transactions on Neural Networks, 2007, 18, 253-265.	4.2	193
10	The Predictive Capacity of Personal Genome Sequencing. Science Translational Medicine, 2012, 4, 133ra58.	12.4	168
11	A new look at state-space models for neural data. Journal of Computational Neuroscience, 2010, 29, 107-126.	1.0	165
12	Different scaling of linear models and deep learning in UKBiobank brain images versus machine-learning datasets. Nature Communications, 2020, 11, 4238.	12.8	156
13	Cross-species functional alignment reveals evolutionary hierarchy within the connectome. NeuroImage, 2020, 223, 117346.	4.2	136
14	D <scp>elta</scp> C <scp>on</scp>. ACM Transactions on Knowledge Discovery From Data, 2016, 10, 1-43.	3.5	125
15	Preventing cytokine storm syndrome in COVID-19 using Î±-1 adrenergic receptor antagonists. Journal of Clinical Investigation, 2020, 130, 3345-3347.	8.2	107
16	Toward Neurosubtypes in Autism. Biological Psychiatry, 2020, 88, 111-128.	1.3	97
17	Toward a connectivity gradient-based framework for reproducible biomarker discovery. NeuroImage, 2020, 223, 117322.	4.2	87
18	Fast Approximate Quadratic Programming for Graph Matching. PLoS ONE, 2015, 10, e0121002.	2.5	83

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19	A Bayesian approach for inferring neuronal connectivity from calcium fluorescent imaging data. Annals of Applied Statistics, 2011, 5, .	1.1	79
20	Graph Matching: Relax at Your Own Risk. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 60-73.	13.9	76
21	Quantifying Mesoscale Neuroanatomy Using X-Ray Microtomography. ENeuro, 2017, 4, ENEURO.0195-17.2017.	1.9	74
22	Covariate-assisted spectral clustering. Biometrika, 2017, 104, 361-377.	2.4	65
23	Factors affecting characterization and localization of interindividual differences in functional connectivity using MRI. Human Brain Mapping, 2016, 37, 1986-1997.	3.6	63
24	Biological underpinnings for lifelong learning machines. Nature Machine Intelligence, 2022, 4, 196-210.	16.0	62
25	Nonparametric Bayes Modeling of Populations of Networks. Journal of the American Statistical Association, 2017, 112, 1516-1530.	3.1	59
26	A community-developed open-source computational ecosystem for big neuro data. Nature Methods, 2018, 15, 846-847.	19.0	51
27	Consistent Adjacency-Spectral Partitioning for the Stochastic Block Model When the Model Parameters Are Unknown. SIAM Journal on Matrix Analysis and Applications, 2013, 34, 23-39.	1.4	48
28	To the Cloud! A Grassroots Proposal to Accelerate Brain Science Discovery. Neuron, 2016, 92, 622-627.	8.1	46
29	Impact of concatenating fMRI data on reliability for functional connectomics. NeuroImage, 2021, 226, 117549.	4.2	42
30	Accurate prediction of AD patients using cortical thickness networks. Machine Vision and Applications, 2013, 24, 1445-1457.	2.7	41
31	Removing the Reliability Bottleneck in Functional Magnetic Resonance Imaging Research to Achieve Clinical Utility. JAMA Psychiatry, 2021, 78, 587.	11.0	41
32	On a two-truths phenomenon in spectral graph clustering. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5995-6000.	7.1	40
33	The open connectome project data cluster. , 2013, , .		38
34	A Comparison of Supervised Machine Learning Algorithms and Feature Vectors for MS Lesion Segmentation Using Multimodal Structural MRI. PLoS ONE, 2014, 9, e95753.	2.5	38
35	Multichannel Electrophysiological Spike Sorting via Joint Dictionary Learning and Mixture Modeling. IEEE Transactions on Biomedical Engineering, 2014, 61, 41-54.	4.2	35
36	Imaging Action Potentials with Calcium Indicators. Cold Spring Harbor Protocols, 2011, 2011, pdb.prot5650.	0.3	33

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37	Variability and heritability of mouse brain structure: Microscopic MRI atlases and connectomes for diverse strains. NeuroImage, 2020, 222, 117274.	4.2	33
38	Bagging improves reproducibility of functional parcellation of the human brain. NeuroImage, 2020, 214, 116678.	4.2	33
39	Visualizing synaptic plasticity in vivo by large-scale imaging of endogenous AMPA receptors. ELife, 2021, 10, .	6.0	33
40	A resource from 3D electron microscopy of hippocampal neuropil for user training and tool development. Scientific Data, 2015, 2, 150046.	5.3	32
41	Graph Classification Using Signal-Subgraphs: Applications in Statistical Connectomics. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 1539-1551.	13.9	31
42	From Distance Correlation to Multiscale Graph Correlation. Journal of the American Statistical Association, 2020, 115, 280-291.	3.1	30
43	Selected reaction monitoring approach for validating peptide biomarkers. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13519-13524.	7.1	28
44	Eliminating accidental deviations to minimize generalization error and maximize replicability: Applications in connectomics and genomics. PLoS Computational Biology, 2021, 17, e1009279.	3.2	28
45	Joint embedding: A scalable alignment to compare individuals in a connectivity space. NeuroImage, 2020, 222, 117232.	4.2	27
46	Statistical Inference on Errorfully Observed Graphs. Journal of Computational and Graphical Statistics, 2015, 24, 930-953.	1.7	25
47	The Association Between Alpha-1 Adrenergic Receptor Antagonists and In-Hospital Mortality From COVID-19. Frontiers in Medicine, 2021, 8, 637647.	2.6	25
48	Magnetic Resonance Connectome Automated Pipeline: An Overview. IEEE Pulse, 2012, 3, 42-48.	0.3	24
49	The Chi-Square Test of Distance Correlation. Journal of Computational and Graphical Statistics, 2022, 31, 254-262.	1.7	23
50	Is Neuroscience FAIR? A Call for Collaborative Standardisation of Neuroscience Data. Neuroinformatics, 2022, 20, 507-512.	2.8	23
51	Semi-External Memory Sparse Matrix Multiplication for Billion-Node Graphs. IEEE Transactions on Parallel and Distributed Systems, 2017, 28, 1470-1483.	5.6	22
52	Science in the cloud (SIC): A use case in MRI connectomics. GigaScience, 2017, 6, 1-10.	6.4	22
53	Standardizing human brain parcellations. Scientific Data, 2021, 8, 78.	5.3	21
54	Alpha-1 adrenergic receptor antagonists to prevent hyperinflammation and death from lower respiratory tract infection. ELife, 2021, 10, .	6.0	21

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55	From Cosmos to Connectomes: The Evolution of Data-Intensive Science. Neuron, 2014, 83, 1249-1252.	8.1	20
56	Supervised dimensionality reduction for big data. Nature Communications, 2021, 12, 2872.	12.8	20
57	Spectral clustering for divide-and-conquer graph matching. Parallel Computing, 2015, 47, 70-87.	2.1	19
58	Statistical Connectomics. Annual Review of Statistics and Its Application, 2021, 8, 463-492.	7.0	18
59	An automated images-to-graphs framework for high resolution connectomics. Frontiers in Neuroinformatics, 2015, 9, 20.	2.5	18
60	Bayesian crack detection in ultra high resolution multimodal images of paintings. , 2013, , .		17
61	Discovering and deciphering relationships across disparate data modalities. ELife, 2019, 8, .	6.0	16
62	Connectome smoothing via low-rank approximations. IEEE Transactions on Medical Imaging, 2019, 38, 1446-1456.	8.9	15
63	Connectal coding: discovering the structures linking cognitive phenotypes to individual histories. Current Opinion in Neurobiology, 2019, 55, 199-212.	4.2	14
64	Probabilistic fluorescence-based synapse detection. PLoS Computational Biology, 2017, 13, e1005493.	3.2	14
65	VESICLE: Volumetric Evaluation of Synaptic Inferfaces using Computer Vision at Large Scale. , 2015, , .		13
66	Computing scalable multivariate glocal invariants of large (brain-) graphs. , 2013, , .		12
67	A joint graph inference case study: theC. eleganschemical and electrical connectomes. Worm, 2016, 5, e1142041.	1.0	12
68	Toward Community-Driven Big Open Brain Science: Open Big Data and Tools for Structure, Function, and Genetics. Annual Review of Neuroscience, 2020, 43, 441-464.	10.7	12
69	The exact equivalence of distance and kernel methods in hypothesis testing. AStA Advances in Statistical Analysis, 2021, 105, 385-403.	0.9	12
70	Association of Î±1-Blocker Receipt With 30-Day Mortality and Risk of Intensive Care Unit Admission Among Adults Hospitalized With Influenza or Pneumonia in Denmark. JAMA Network Open, 2021, 4, e2037053.	5.9	12
71	Synaptic molecular imaging in spared and deprived columns of mouse barrel cortex with array tomography. Scientific Data, 2014, 1, 140046.	5.3	11
72	CloudReg: automatic terabyte-scale cross-modal brain volume registration. Nature Methods, 2021, 18, 845-846.	19.0	11

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73	Manifold matching using shortest-path distance and joint neighborhood selection. Pattern Recognition Letters, 2017, 92, 41-48.	4.2	9
74	Network dependence testing via diffusion maps and distance-based correlations. Biometrika, 2019, 106, 857-873.	2.4	9
75	MIGRAINE: MRI Graph Reliability Analysis and Inference for Connectomics. , 2013, , .		8
76	A Large Deformation Diffeomorphic Approach to Registration of CLARITY Images via Mutual Information. Lecture Notes in Computer Science, 2017, , 275-282.	1.3	8
77	On statistical tests of functional connectome fingerprinting. Canadian Journal of Statistics, 2021, 49, 63-88.	0.9	8
78	Robust Vertex Classification. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 578-590.	13.9	7
79	Shuffled Graph Classification: Theory and Connectome Applications. Journal of Classification, 2015, 32, 3-20.	2.2	6
80	Deformably registering and annotating whole CLARITY brains to an atlas via masked LDDMM. , 2016, , .		6
81	An M-estimator for reduced-rank system identification. Pattern Recognition Letters, 2017, 86, 76-81.	4.2	6
82	Kernel k-Groups via Hartigan's Method. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 43, 1-1.	13.9	6
83	Network-Based Classification Using Cortical Thickness of AD Patients. Lecture Notes in Computer Science, 2011, , 193-200.	1.3	6
84	Are mental properties supervenient on brain properties?. Scientific Reports, 2011, 1, 100.	3.3	5
85	Optimizing the Quantity/Quality Trade-Off in Connectome Inference. Communications in Statistics - Theory and Methods, 2013, 42, 3455-3462.	1.0	5
86	knor. , 2017, , .		5
87	Neuronal classification from network connectivity via adjacency spectral embedding. Network Neuroscience, 2021, 5, 1-22.	2.6	5
88	ROFLMAO: Robust Oblique Forests with Linear MAtrix Operations. , 2017, , 498-506.		4
89	Ten Rules for Conducting Retrospective Pharmacoepidemiological Analyses: Example COVID-19 Study. Frontiers in Pharmacology, 2021, 12, 700776.	3.5	4
90	Fitting Splines to Axonal Arbors Quantifies Relationship Between Branch Order and Geometry. Frontiers in Neuroinformatics, 2021, 15, 704627.	2.5	4

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91	Geodesic Forests. , 2020, , .		4
92	Hidden Markov modeling for maximum probability neuron reconstruction. Communications Biology, 2022, 5, 388.	4.4	4
93	Accuracy of Saccades to Remembered Targets as a Function of Body Orientation in Space. Journal of Neurophysiology, 2003, 90, 521-524.	1.8	3
94	Building NDStore Through Hierarchical Storage Management and Microservice Processing. , 2018, , .		3
95	Valid twoâ€sample graph testing via optimal transport Procrustes and multiscale graph correlation with applications in connectomics. Stat, 2022, 11, e429.	0.4	3
96	Inference for Multiple Heterogeneous Networks with a Common Invariant Subspace. Journal of Machine Learning Research, 2021, 22, 1-49.	62.4	3
97	Thermal sensors improve wrist-worn position tracking. Npj Digital Medicine, 2019, 2, 15.	10.9	2
98	Inpatient Administration of Alpha-1-Adrenergic Receptor Blocking Agents Reduces Mortality in Male COVID-19 Patients. Frontiers in Medicine, 2022, 9, 849222.	2.6	2
99	Q&A: What is the Open Connectome Project?. Neural Systems & Circuits, 2011, 1, 16.	1.8	1
100	Response to Comments on â€œThe Predictive Capacity of Personal Genome Sequencingâ€• Science Translational Medicine, 2012, 4, .	12.4	1
101	Rejoinder: Nonparametric Bayes Modeling of Populations of Networks. Journal of the American Statistical Association, 2017, 112, 1547-1552.	3.1	1
102	FlashR. ACM SIGPLAN Notices, 2018, 53, 183-194.	0.2	0