

Joshua T Vogelstein

List of Publications by Year in descending order

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Version: 2024-02-01

102
papers

7,923
citations

147566

31
h-index

62479

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. <i>Science</i> , 2018, 359, 926-930.	6.0	1,872
2	Saturated Reconstruction of a Volume of Neocortex. <i>Cell</i> , 2015, 162, 648-661.	13.5	870
3	Differential connectivity and response dynamics of excitatory and inhibitory neurons in visual cortex. <i>Nature Neuroscience</i> , 2011, 14, 1045-1052.	7.1	439
4	Fast Nonnegative Deconvolution for Spike Train Inference From Population Calcium Imaging. <i>Journal of Neurophysiology</i> , 2010, 104, 3691-3704.	0.9	404
5	Imaging human connectomes at the macroscale. <i>Nature Methods</i> , 2013, 10, 524-539.	9.0	384
6	Whole-brain serial-section electron microscopy in larval zebrafish. <i>Nature</i> , 2017, 545, 345-349.	13.7	282
7	Discovery of Brainwide Neural-Behavioral Maps via Multiscale Unsupervised Structure Learning. <i>Science</i> , 2014, 344, 386-392.	6.0	226
8	Spike Inference from Calcium Imaging Using Sequential Monte Carlo Methods. <i>Biophysical Journal</i> , 2009, 97, 636-655.	0.2	197
9	Dynamically Reconfigurable Silicon Array of Spiking Neurons With Conductance-Based Synapses. <i>IEEE Transactions on Neural Networks</i> , 2007, 18, 253-265.	4.8	193
10	The Predictive Capacity of Personal Genome Sequencing. <i>Science Translational Medicine</i> , 2012, 4, 133ra58.	5.8	168
11	A new look at state-space models for neural data. <i>Journal of Computational Neuroscience</i> , 2010, 29, 107-126.	0.6	165
12	Different scaling of linear models and deep learning in UKBiobank brain images versus machine-learning datasets. <i>Nature Communications</i> , 2020, 11, 4238.	5.8	156
13	Cross-species functional alignment reveals evolutionary hierarchy within the connectome. <i>NeuroImage</i> , 2020, 223, 117346.	2.1	136
14	D Δ C Δ . <i>ACM Transactions on Knowledge Discovery From Data</i> , 2016, 10, 1-43.	2.5	125
15	Preventing cytokine storm syndrome in COVID-19 using β -1 adrenergic receptor antagonists. <i>Journal of Clinical Investigation</i> , 2020, 130, 3345-3347.	3.9	107
16	Toward Neurosubtypes in Autism. <i>Biological Psychiatry</i> , 2020, 88, 111-128.	0.7	97
17	Toward a connectivity gradient-based framework for reproducible biomarker discovery. <i>NeuroImage</i> , 2020, 223, 117322.	2.1	87
18	Fast Approximate Quadratic Programming for Graph Matching. <i>PLoS ONE</i> , 2015, 10, e0121002.	1.1	83

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19	A Bayesian approach for inferring neuronal connectivity from calcium fluorescent imaging data. <i>Annals of Applied Statistics</i> , 2011, 5, .	0.5	79
20	Graph Matching: Relax at Your Own Risk. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2016, 38, 60-73.	9.7	76
21	Quantifying Mesoscale Neuroanatomy Using X-Ray Microtomography. <i>ENeuro</i> , 2017, 4, ENEURO.0195-17.2017.	0.9	74
22	Covariate-assisted spectral clustering. <i>Biometrika</i> , 2017, 104, 361-377.	1.3	65
23	Factors affecting characterization and localization of interindividual differences in functional connectivity using MRI. <i>Human Brain Mapping</i> , 2016, 37, 1986-1997.	1.9	63
24	Biological underpinnings for lifelong learning machines. <i>Nature Machine Intelligence</i> , 2022, 4, 196-210.	8.3	62
25	Nonparametric Bayes Modeling of Populations of Networks. <i>Journal of the American Statistical Association</i> , 2017, 112, 1516-1530.	1.8	59
26	A community-developed open-source computational ecosystem for big neuro data. <i>Nature Methods</i> , 2018, 15, 846-847.	9.0	51
27	Consistent Adjacency-Spectral Partitioning for the Stochastic Block Model When the Model Parameters Are Unknown. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2013, 34, 23-39.	0.7	48
28	To the Cloud! A Grassroots Proposal to Accelerate Brain Science Discovery. <i>Neuron</i> , 2016, 92, 622-627.	3.8	46
29	Impact of concatenating fMRI data on reliability for functional connectomics. <i>NeuroImage</i> , 2021, 226, 117549.	2.1	42
30	Accurate prediction of AD patients using cortical thickness networks. <i>Machine Vision and Applications</i> , 2013, 24, 1445-1457.	1.7	41
31	Removing the Reliability Bottleneck in Functional Magnetic Resonance Imaging Research to Achieve Clinical Utility. <i>JAMA Psychiatry</i> , 2021, 78, 587.	6.0	41
32	On a two-truths phenomenon in spectral graph clustering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 5995-6000.	3.3	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. <i>PLoS ONE</i> , 2014, 9, e95753.	1.1	38
35	Multichannel Electrophysiological Spike Sorting via Joint Dictionary Learning and Mixture Modeling. <i>IEEE Transactions on Biomedical Engineering</i> , 2014, 61, 41-54.	2.5	35
36	Imaging Action Potentials with Calcium Indicators. <i>Cold Spring Harbor Protocols</i> , 2011, 2011, pdb.prot5650.	0.2	33

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37	Variability and heritability of mouse brain structure: Microscopic MRI atlases and connectomes for diverse strains. <i>NeuroImage</i> , 2020, 222, 117274.	2.1	33
38	Bagging improves reproducibility of functional parcellation of the human brain. <i>NeuroImage</i> , 2020, 214, 116678.	2.1	33
39	Visualizing synaptic plasticity in vivo by large-scale imaging of endogenous AMPA receptors. <i>ELife</i> , 2021, 10, .	2.8	33
40	A resource from 3D electron microscopy of hippocampal neuropil for user training and tool development. <i>Scientific Data</i> , 2015, 2, 150046.	2.4	32
41	Graph Classification Using Signal-Subgraphs: Applications in Statistical Connectomics. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2013, 35, 1539-1551.	9.7	31
42	From Distance Correlation to Multiscale Graph Correlation. <i>Journal of the American Statistical Association</i> , 2020, 115, 280-291.	1.8	30
43	Selected reaction monitoring approach for validating peptide biomarkers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 13519-13524.	3.3	28
44	Eliminating accidental deviations to minimize generalization error and maximize replicability: Applications in connectomics and genomics. <i>PLoS Computational Biology</i> , 2021, 17, e1009279.	1.5	28
45	Joint embedding: A scalable alignment to compare individuals in a connectivity space. <i>NeuroImage</i> , 2020, 222, 117232.	2.1	27
46	Statistical Inference on Errorfully Observed Graphs. <i>Journal of Computational and Graphical Statistics</i> , 2015, 24, 930-953.	0.9	25
47	The Association Between Alpha-1 Adrenergic Receptor Antagonists and In-Hospital Mortality From COVID-19. <i>Frontiers in Medicine</i> , 2021, 8, 637647.	1.2	25
48	Magnetic Resonance Connectome Automated Pipeline: An Overview. <i>IEEE Pulse</i> , 2012, 3, 42-48.	0.1	24
49	The Chi-Square Test of Distance Correlation. <i>Journal of Computational and Graphical Statistics</i> , 2022, 31, 254-262.	0.9	23
50	Is Neuroscience FAIR? A Call for Collaborative Standardisation of Neuroscience Data. <i>Neuroinformatics</i> , 2022, 20, 507-512.	1.5	23
51	Semi-External Memory Sparse Matrix Multiplication for Billion-Node Graphs. <i>IEEE Transactions on Parallel and Distributed Systems</i> , 2017, 28, 1470-1483.	4.0	22
52	Science in the cloud (SIC): A use case in MRI connectomics. <i>GigaScience</i> , 2017, 6, 1-10.	3.3	22
53	Standardizing human brain parcellations. <i>Scientific Data</i> , 2021, 8, 78.	2.4	21
54	Alpha-1 adrenergic receptor antagonists to prevent hyperinflammation and death from lower respiratory tract infection. <i>ELife</i> , 2021, 10, .	2.8	21

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55	From Cosmos to Connectomes: The Evolution of Data-Intensive Science. <i>Neuron</i> , 2014, 83, 1249-1252.	3.8	20
56	Supervised dimensionality reduction for big data. <i>Nature Communications</i> , 2021, 12, 2872.	5.8	20
57	Spectral clustering for divide-and-conquer graph matching. <i>Parallel Computing</i> , 2015, 47, 70-87.	1.3	19
58	Statistical Connectomics. <i>Annual Review of Statistics and Its Application</i> , 2021, 8, 463-492.	4.1	18
59	An automated images-to-graphs framework for high resolution connectomics. <i>Frontiers in Neuroinformatics</i> , 2015, 9, 20.	1.3	18
60	Bayesian crack detection in ultra high resolution multimodal images of paintings. , 2013, , .		17
61	Discovering and deciphering relationships across disparate data modalities. <i>ELife</i> , 2019, 8, .	2.8	16
62	Connectome smoothing via low-rank approximations. <i>IEEE Transactions on Medical Imaging</i> , 2019, 38, 1446-1456.	5.4	15
63	Connectal coding: discovering the structures linking cognitive phenotypes to individual histories. <i>Current Opinion in Neurobiology</i> , 2019, 55, 199-212.	2.0	14
64	Probabilistic fluorescence-based synapse detection. <i>PLoS Computational Biology</i> , 2017, 13, e1005493.	1.5	14
65	VESICLE: Volumetric Evaluation of Synaptic Interfaces using Computer Vision at Large Scale. , 2015, , .		13
66	Computing scalable multivariate global invariants of large (brain-) graphs. , 2013, , .		12
67	A joint graph inference case study: the <i>C. elegans</i> chemical and electrical connectomes. <i>Worm</i> , 2016, 5, e1142041.	1.0	12
68	Toward Community-Driven Big Open Brain Science: Open Big Data and Tools for Structure, Function, and Genetics. <i>Annual Review of Neuroscience</i> , 2020, 43, 441-464.	5.0	12
69	The exact equivalence of distance and kernel methods in hypothesis testing. <i>AStA Advances in Statistical Analysis</i> , 2021, 105, 385-403.	0.4	12
70	Association of β -Blocker Receipt With 30-Day Mortality and Risk of Intensive Care Unit Admission Among Adults Hospitalized With Influenza or Pneumonia in Denmark. <i>JAMA Network Open</i> , 2021, 4, e2037053.	2.8	12
71	Synaptic molecular imaging in spared and deprived columns of mouse barrel cortex with array tomography. <i>Scientific Data</i> , 2014, 1, 140046.	2.4	11
72	CloudReg: automatic terabyte-scale cross-modal brain volume registration. <i>Nature Methods</i> , 2021, 18, 845-846.	9.0	11

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73	Manifold matching using shortest-path distance and joint neighborhood selection. Pattern Recognition Letters, 2017, 92, 41-48.	2.6	9
74	Network dependence testing via diffusion maps and distance-based correlations. Biometrika, 2019, 106, 857-873.	1.3	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.	1.0	8
77	On statistical tests of functional connectome fingerprinting. Canadian Journal of Statistics, 2021, 49, 63-88.	0.6	8
78	Robust Vertex Classification. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 578-590.	9.7	7
79	Shuffled Graph Classification: Theory and Connectome Applications. Journal of Classification, 2015, 32, 3-20.	1.2	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.	2.6	6
82	Kernel k-Groups via Hartigan's Method. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 43, 1-1.	9.7	6
83	Network-Based Classification Using Cortical Thickness of AD Patients. Lecture Notes in Computer Science, 2011, , 193-200.	1.0	6
84	Are mental properties supervenient on brain properties?. Scientific Reports, 2011, 1, 100.	1.6	5
85	Optimizing the Quantity/Quality Trade-Off in Connectome Inference. Communications in Statistics - Theory and Methods, 2013, 42, 3455-3462.	0.6	5
86	knor. , 2017, , .		5
87	Neuronal classification from network connectivity via adjacency spectral embedding. Network Neuroscience, 2021, 5, 1-22.	1.4	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.	1.6	4
90	Fitting Splines to Axonal Arbors Quantifies Relationship Between Branch Order and Geometry. Frontiers in Neuroinformatics, 2021, 15, 704627.	1.3	4

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91	Geodesic Forests. , 2020, , .		4
92	Hidden Markov modeling for maximum probability neuron reconstruction. Communications Biology, 2022, 5, 388.	2.0	4
93	Accuracy of Saccades to Remembered Targets as a Function of Body Orientation in Space. Journal of Neurophysiology, 2003, 90, 521-524.	0.9	3
94	Building NDStore Through Hierarchical Storage Management and Microservice Processing. , 2018, , .		3
95	Valid two-sample graph testing via optimal transport Procrustes and multiscale graph correlation with applications in connectomics. Stat, 2022, 11, e429.	0.3	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.	5.7	2
98	Inpatient Administration of Alpha-1-Adrenergic Receptor Blocking Agents Reduces Mortality in Male COVID-19 Patients. Frontiers in Medicine, 2022, 9, 849222.	1.2	2
99	Q&A: What is the Open Connectome Project?. Neural Systems & Circuits, 2011, 1, 16.	1.8	1
100	Response to Comments on "The Predictive Capacity of Personal Genome Sequencing" Science Translational Medicine, 2012, 4, .	5.8	1
101	Rejoinder: Nonparametric Bayes Modeling of Populations of Networks. Journal of the American Statistical Association, 2017, 112, 1547-1552.	1.8	1
102	FlashR. ACM SIGPLAN Notices, 2018, 53, 183-194.	0.2	0