Joshua T Vogelstein

List of Publications by Year
in descending order

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	The Chi-Square Test of Distance Correlation. Journal of Computational and Graphical Statistics, 2022, 31, 254-262.	0.9	23
2	Valid twoâ€sample graph testing via optimal transport Procrustes and multiscale graph correlation with applications in connectomics. Stat, 2022, 11, e429.	0.3	3
3	Is Neuroscience FAIR? A Call for Collaborative Standardisation of Neuroscience Data. Neuroinformatics, 2022, 20, 507-512.	1.5	23
4	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
5	Biological underpinnings for lifelong learning machines. Nature Machine Intelligence, 2022, 4, 196-210.	8.3	62
6	Hidden Markov modeling for maximum probability neuron reconstruction. Communications Biology, 2022, 5, 388.	2.0	4
7	The exact equivalence of distance and kernel methods in hypothesis testing. AStA Advances in Statistical Analysis, 2021, 105, 385-403.	0.4	12
8	Impact of concatenating fMRI data on reliability for functional connectomics. NeuroImage, 2021, 226, 117549.	2.1	42
9	On statistical tests of functional connectome fingerprinting. Canadian Journal of Statistics, 2021, 49, 63-88.	0.6	8
10	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.	2.8	12
11	Standardizing human brain parcellations. Scientific Data, 2021, 8, 78.	2.4	21
12	The Association Between Alpha-1 Adrenergic Receptor Antagonists and In-Hospital Mortality From COVID-19. Frontiers in Medicine, 2021, 8, 637647.	1.2	25
13	Statistical Connectomics. Annual Review of Statistics and Its Application, 2021, 8, 463-492.	4.1	18
14	Neuronal classification from network connectivity via adjacency spectral embedding. Network Neuroscience, 2021, 5, 1-22.	1.4	5
15	Supervised dimensionality reduction for big data. Nature Communications, 2021, 12, 2872.	5.8	20
16	Removing the Reliability Bottleneck in Functional Magnetic Resonance Imaging Research to Achieve Clinical Utility. JAMA Psychiatry, 2021, 78, 587.	6.0	41
17	Alpha-1 adrenergic receptor antagonists to prevent hyperinflammation and death from lower respiratory tract infection. ELife, 2021, 10, .	2.8	21
18	Ten Rules for Conducting Retrospective Pharmacoepidemiological Analyses: Example COVID-19 Study. Frontiers in Pharmacology, 2021, 12, 700776.	1.6	4

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19	CloudReg: automatic terabyte-scale cross-modal brain volume registration. Nature Methods, 2021, 18, 845-846.	9.0	11
20	Fitting Splines to Axonal Arbors Quantifies Relationship Between Branch Order and Geometry. Frontiers in Neuroinformatics, 2021, 15, 704627.	1.3	4
21	Eliminating accidental deviations to minimize generalization error and maximize replicability: Applications in connectomics and genomics. PLoS Computational Biology, 2021, 17, e1009279.	1.5	28
22	Visualizing synaptic plasticity in vivo by large-scale imaging of endogenous AMPA receptors. ELife, 2021, 10, .	2.8	33
23	Inference for Multiple Heterogeneous Networks with a Common Invariant Subspace. Journal of Machine Learning Research, 2021, 22, 1-49.	62.4	3
24	From Distance Correlation to Multiscale Graph Correlation. Journal of the American Statistical Association, 2020, 115, 280-291.	1.8	30
25	Variability and heritability of mouse brain structure: Microscopic MRI atlases and connectomes for diverse strains. NeuroImage, 2020, 222, 117274.	2.1	33
26	Joint embedding: A scalable alignment to compare individuals in a connectivity space. NeuroImage, 2020, 222, 117232.	2.1	27
27	Toward a connectivity gradient-based framework for reproducible biomarker discovery. NeuroImage, 2020, 223, 117322.	2.1	87
28	Cross-species functional alignment reveals evolutionary hierarchy within the connectome. NeuroImage, 2020, 223, 117346.	2.1	136
29	Different scaling of linear models and deep learning in UKBiobank brain images versus machine-learning datasets. Nature Communications, 2020, 11, 4238.	5.8	156
30	Kernel k-Groups via Hartigan's Method. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, 43, 1-1.	9.7	6
31	Bagging improves reproducibility of functional parcellation of the human brain. NeuroImage, 2020, 214, 116678.	2.1	33
32	Toward Neurosubtypes in Autism. Biological Psychiatry, 2020, 88, 111-128.	0.7	97
33	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.	5.0	12
34	Preventing cytokine storm syndrome in COVID-19 using Î±-1 adrenergic receptor antagonists. Journal of Clinical Investigation, 2020, 130, 3345-3347.	3.9	107
35	Geodesic Forests. , 2020, , .		4
36	Network dependence testing via diffusion maps and distance-based correlations. Biometrika, 2019, 106, 857-873.	1.3	9

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37	Connectal coding: discovering the structures linking cognitive phenotypes to individual histories. Current Opinion in Neurobiology, 2019, 55, 199-212.	2.0	14
38	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.	3.3	40
39	Thermal sensors improve wrist-worn position tracking. Npj Digital Medicine, 2019, 2, 15.	5.7	2
40	Connectome smoothing via low-rank approximations. IEEE Transactions on Medical Imaging, 2019, 38, 1446-1456.	5.4	15
41	Discovering and deciphering relationships across disparate data modalities. ELife, 2019, 8, .	2.8	16
42	Detection and localization of surgically resectable cancers with a multi-analyte blood test. Science, 2018, 359, 926-930.	6.0	1,872
43	Building NDStore Through Hierarchical Storage Management and Microservice Processing. , 2018, , .		3
44	A community-developed open-source computational ecosystem for big neuro data. Nature Methods, 2018, 15, 846-847.	9.0	51
45	FlashR. ACM SIGPLAN Notices, 2018, 53, 183-194.	0.2	0
46	An M-estimator for reduced-rank system identification. Pattern Recognition Letters, 2017, 86, 76-81.	2.6	6
47	Manifold matching using shortest-path distance and joint neighborhood selection. Pattern Recognition Letters, 2017, 92, 41-48.	2.6	9
48	Whole-brain serial-section electron microscopy in larval zebrafish. Nature, 2017, 545, 345-349.	13.7	282
49	A Large Deformation Diffeomorphic Approach to Registration of CLARITY Images via Mutual Information. Lecture Notes in Computer Science, 2017, , 275-282.	1.0	8
50	ROFLMAO: Robust Oblique Forests with Linear MAtrix Operations. , 2017, , 498-506.		4
51	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.	3.3	28
52	knor. , 2017, , .		5
53	Nonparametric Bayes Modeling of Populations of Networks. Journal of the American Statistical Association, 2017, 112, 1516-1530.	1.8	59
54	Semi-External Memory Sparse Matrix Multiplication for Billion-Node Graphs. IEEE Transactions on Parallel and Distributed Systems, 2017, 28, 1470-1483.	4.0	22

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55	Rejoinder: Nonparametric Bayes Modeling of Populations of Networks. Journal of the American Statistical Association, 2017, 112, 1547-1552.	1.8	1
56	Science in the cloud (SIC): A use case in MRI connectomics. GigaScience, 2017, 6, 1-10.	3.3	22
57	Covariate-assisted spectral clustering. Biometrika, 2017, 104, 361-377.	1.3	65
58	Probabilistic fluorescence-based synapse detection. PLoS Computational Biology, 2017, 13, e1005493.	1.5	14
59	Quantifying Mesoscale Neuroanatomy Using X-Ray Microtomography. ENeuro, 2017, 4, ENEURO.0195-17.2017.	0.9	74
60	Factors affecting characterization and localization of interindividual differences in functional connectivity using MRI. Human Brain Mapping, 2016, 37, 1986-1997.	1.9	63
61	Deformably registering and annotating whole CLARITY brains to an atlas via masked LDDMM. , 2016, , .		6
62	To the Cloud! A Grassroots Proposal to Accelerate Brain Science Discovery. Neuron, 2016, 92, 622-627.	3.8	46
63	Graph Matching: Relax at Your Own Risk. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 60-73.	9.7	76
64	A joint graph inference case study: theC. eleganschemical and electrical connectomes. Worm, 2016, 5, e1142041.	1.0	12
65	Robust Vertex Classification. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 578-590.	9.7	7
66	D <scp>elta</scp> C <scp>on</scp>. ACM Transactions on Knowledge Discovery From Data, 2016, 10, 1-43.	2.5	125
67	Statistical Inference on Errorfully Observed Graphs. Journal of Computational and Graphical Statistics, 2015, 24, 930-953.	0.9	25
68	A resource from 3D electron microscopy of hippocampal neuropil for user training and tool development. Scientific Data, 2015, 2, 150046.	2.4	32
69	Fast Approximate Quadratic Programming for Graph Matching. PLoS ONE, 2015, 10, e0121002.	1.1	83
70	Saturated Reconstruction of a Volume of Neocortex. Cell, 2015, 162, 648-661.	13.5	870
71	Spectral clustering for divide-and-conquer graph matching. Parallel Computing, 2015, 47, 70-87.	1.3	19
72	Shuffled Graph Classification: Theory and Connectome Applications. Journal of Classification, 2015, 32, 3-20.	1.2	6

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73	An automated images-to-graphs framework for high resolution connectomics. Frontiers in Neuroinformatics, 2015, 9, 20.	1.3	18
74	VESICLE: Volumetric Evaluation of Synaptic Inferfaces using Computer Vision at Large Scale. , 2015, , .		13
75	A Comparison of Supervised Machine Learning Algorithms and Feature Vectors for MS Lesion Segmentation Using Multimodal Structural MRI. PLoS ONE, 2014, 9, e95753.	1.1	38
76	Discovery of Brainwide Neural-Behavioral Maps via Multiscale Unsupervised Structure Learning. Science, 2014, 344, 386-392.	6.0	226
77	From Cosmos to Connectomes: The Evolution of Data-Intensive Science. Neuron, 2014, 83, 1249-1252.	3.8	20
78	Multichannel Electrophysiological Spike Sorting via Joint Dictionary Learning and Mixture Modeling. IEEE Transactions on Biomedical Engineering, 2014, 61, 41-54.	2.5	35
79	Synaptic molecular imaging in spared and deprived columns of mouse barrel cortex with array tomography. Scientific Data, 2014, 1, 140046.	2.4	11
80	MIGRAINE: MRI Graph Reliability Analysis and Inference for Connectomics. , 2013, , .		8
81	Computing scalable multivariate glocal invariants of large (brain-) graphs. , 2013, , .		12
82	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.	0.7	48
83	Bayesian crack detection in ultra high resolution multimodal images of paintings. , 2013, , .		17
84	Accurate prediction of AD patients using cortical thickness networks. Machine Vision and Applications, 2013, 24, 1445-1457.	1.7	41
85	Imaging human connectomes at the macroscale. Nature Methods, 2013, 10, 524-539.	9.0	384
86	Optimizing the Quantity/Quality Trade-Off in Connectome Inference. Communications in Statistics - Theory and Methods, 2013, 42, 3455-3462.	0.6	5
87	Graph Classification Using Signal-Subgraphs: Applications in Statistical Connectomics. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 1539-1551.	9.7	31
88	The open connectome project data cluster. , 2013, , .		38
89	Response to Comments on â€œThe Predictive Capacity of Personal Genome Sequencingâ€• Science Translational Medicine, 2012, 4, .	5.8	1
90	Magnetic Resonance Connectome Automated Pipeline: An Overview. IEEE Pulse, 2012, 3, 42-48.	0.1	24

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91	The Predictive Capacity of Personal Genome Sequencing. Science Translational Medicine, 2012, 4, 133ra58.	5.8	168
92	Imaging Action Potentials with Calcium Indicators. Cold Spring Harbor Protocols, 2011, 2011, pdb.prot5650.	0.2	33
93	Differential connectivity and response dynamics of excitatory and inhibitory neurons in visual cortex. Nature Neuroscience, 2011, 14, 1045-1052.	7.1	439
94	A Bayesian approach for inferring neuronal connectivity from calcium fluorescent imaging data. Annals of Applied Statistics, 2011, 5, .	0.5	79
95	Are mental properties supervenient on brain properties?. Scientific Reports, 2011, 1, 100.	1.6	5
96	Q&A: What is the Open Connectome Project?. Neural Systems & Circuits, 2011, 1, 16.	1.8	1
97	Network-Based Classification Using Cortical Thickness of AD Patients. Lecture Notes in Computer Science, 2011, , 193-200.	1.0	6
98	A new look at state-space models for neural data. Journal of Computational Neuroscience, 2010, 29, 107-126.	0.6	165
99	Fast Nonnegative Deconvolution for Spike Train Inference From Population Calcium Imaging. Journal of Neurophysiology, 2010, 104, 3691-3704.	0.9	404
100	Spike Inference from Calcium Imaging Using Sequential Monte Carlo Methods. Biophysical Journal, 2009, 97, 636-655.	0.2	197
101	Dynamically Reconfigurable Silicon Array of Spiking Neurons With Conductance-Based Synapses. IEEE Transactions on Neural Networks, 2007, 18, 253-265.	4.8	193
102	Accuracy of Saccades to Remembered Targets as a Function of Body Orientation in Space. Journal of Neurophysiology, 2003, 90, 521-524.	0.9	3