

# H Sebastian Seung

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6506973/publications.pdf>

Version: 2024-02-01

40  
papers

7,168  
citations

346980

22  
h-index

488211

31  
g-index

54  
all docs

54  
docs citations

54  
times ranked

10298  
citing authors

#	ARTICLE	IF	CITATIONS
1	FlyWire: online community for whole-brain connectomics. <i>Nature Methods</i> , 2022, 19, 119-128.	9.0	112
2	Reconstruction of neocortex: Organelles, compartments, cells, circuits, and activity. <i>Cell</i> , 2022, 185, 1082-1100.e24.	13.5	84
3	RealNeuralNetworks.jl: An Integrated Julia Package for Skeletonization, Morphological Analysis, and Synaptic Connectivity Analysis of Terabyte-Scale 3D Neural Segmentations. <i>Frontiers in Neuroinformatics</i> , 2022, 16, 828169.	1.3	3
4	Sensitivity of Sparse Codes to Image Distortions. <i>Neural Computation</i> , 2022, 34, 1616-1635.	1.3	0
5	Chunkflow: hybrid cloud processing of large 3D images by convolutional nets. <i>Nature Methods</i> , 2021, 18, 328-330.	9.0	22
6	Learning and Segmenting Dense Voxel Embeddings for 3D Neuron Reconstruction. <i>IEEE Transactions on Medical Imaging</i> , 2021, 40, 3801-3811.	5.4	15
7	Structure and function of axo-axonic inhibition. <i>ELife</i> , 2021, 10, .	2.8	49
8	Synaptic Partner Assignment Using Attentional Voxel Association Networks. , 2020, , .		23
9	The Mind of a Mouse. <i>Cell</i> , 2020, 182, 1372-1376.	13.5	127
10	PZnet: Efficient 3D ConvNet Inference on Manycore CPUs. <i>Advances in Intelligent Systems and Computing</i> , 2020, , 369-383.	0.5	5
11	The neural basis for a persistent internal state in <i>Drosophila</i> females. <i>ELife</i> , 2020, 9, .	2.8	53
12	Reexamining the principle of mean-variance preservation for neural network initialization. <i>Physical Review Research</i> , 2020, 2, .	1.3	0
13	Multi-order Scaling of High-throughput Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2019, 25, 1040-1041.	0.2	1
14	Learning Metric Graphs for Neuron Segmentation in Electron Microscopy Images. , 2019, , .		6
15	Convolutional nets for reconstructing neural circuits from brain images acquired by serial section electron microscopy. <i>Current Opinion in Neurobiology</i> , 2019, 55, 188-198.	2.0	38
16	Unsupervised learning by a "softened" correlation game: duality and convergence. , 2019, , .		0
17	VAST (Volume Annotation and Segmentation Tool): Efficient Manual and Semi-Automatic Labeling of Large 3D Image Stacks. <i>Frontiers in Neural Circuits</i> , 2018, 12, 88.	1.4	135
18	Digital Museum of Retinal Ganglion Cells with Dense Anatomy and Physiology. <i>Cell</i> , 2018, 173, 1293-1306.e19.	13.5	197

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19	A solution to the single-question crowd wisdom problem. <i>Nature</i> , 2017, 541, 532-535.	13.7	173
20	Scalable training of 3D convolutional networks on multi- and many-cores. <i>Journal of Parallel and Distributed Computing</i> , 2017, 106, 195-204.	2.7	7
21	Trainable Weka Segmentation: a machine learning tool for microscopy pixel classification. <i>Bioinformatics</i> , 2017, 33, 2424-2426.	1.8	1,505
22	Compile-time optimized and statically scheduled N-D convnet primitives for multi-core and many-core (Xeon Phi) CPUs. , 2017, , .		8
23	Electron Microscopic Reconstruction of Functionally Identified Cells in a Neural Integrator. <i>Current Biology</i> , 2017, 27, 2137-2147.e3.	1.8	74
24	ZNNi: Maximizing the Inference Throughput of 3D Convolutional Networks on CPUs and GPUs. , 2016, , .		11
25	ZNN -- A Fast and Scalable Algorithm for Training 3D Convolutional Networks on Multi-core and Many-Core Shared Memory Machines. , 2016, , .		27
26	Analogous Convergence of Sustained and Transient Inputs in Parallel On and Off Pathways for Retinal Motion Computation. <i>Cell Reports</i> , 2016, 14, 1892-1900.	2.9	106
27	Crowdsourcing the creation of image segmentation algorithms for connectomics. <i>Frontiers in Neuroanatomy</i> , 2015, 9, 142.	0.9	248
28	Simple, Scalable Proteomic Imaging for High-Dimensional Profiling of Intact Systems. <i>Cell</i> , 2015, 163, 1500-1514.	13.5	391
29	Saturated Reconstruction of a Volume of Neocortex. <i>Cell</i> , 2015, 162, 648-661.	13.5	870
30	Automated computation of arbor densities: a step toward identifying neuronal cell types. <i>Frontiers in Neuroanatomy</i> , 2014, 8, 139.	0.9	26
31	A genetic and computational approach to structurally classify neuronal types. <i>Nature Communications</i> , 2014, 5, 3512.	5.8	164
32	Space-time wiring specificity supports direction selectivity in the retina. <i>Nature</i> , 2014, 509, 331-336.	13.7	419
33	Neuronal Cell Types and Connectivity: Lessons from the Retina. <i>Neuron</i> , 2014, 83, 1262-1272.	3.8	115
34	Connectomic reconstruction of the inner plexiform layer in the mouse retina. <i>Nature</i> , 2013, 500, 168-174.	13.7	897
35	Machines that learn to segment images: a crucial technology for connectomics. <i>Current Opinion in Neurobiology</i> , 2010, 20, 653-666.	2.0	133
36	Convolutional Networks Can Learn to Generate Affinity Graphs for Image Segmentation. <i>Neural Computation</i> , 2010, 22, 511-538.	1.3	319

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37	Reading the Book of Memory: Sparse Sampling versus Dense Mapping of Connectomes. <i>Neuron</i> , 2009, 62, 17-29.	3.8	136
38	Learning in Spiking Neural Networks by Reinforcement of Stochastic Synaptic Transmission. <i>Neuron</i> , 2003, 40, 1063-1073.	3.8	278
39	Correlated Discharge among Cell Pairs within the Oculomotor Horizontal Velocity-to-Position Integrator. <i>Journal of Neuroscience</i> , 2003, 23, 10852-10858.	1.7	43
40	Half a century of Hebb. <i>Nature Neuroscience</i> , 2000, 3, 1166-1166.	7.1	20