

Anthony M Zador

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

9,902
citations

81900

39
h-index

91884

69
g-index

92
all docs

92
docs citations

92
times ranked

9010
citing authors

#	ARTICLE	IF	CITATIONS
1	Balanced inhibition underlies tuning and sharpens spike timing in auditory cortex. <i>Nature</i> , 2003, 426, 442-446.	27.8	1,220
2	Postsynaptic Receptor Trafficking Underlying a Form of Associative Learning. <i>Science</i> , 2005, 308, 83-88.	12.6	676
3	Sparse Representation of Sounds in the Unanesthetized Auditory Cortex. <i>PLoS Biology</i> , 2008, 6, e16.	5.6	493
4	Input synchrony and the irregular firing of cortical neurons. <i>Nature Neuroscience</i> , 1998, 1, 210-217.	14.8	462
5	Efficient Discrimination of Temporal Patterns by Motion-Sensitive Neurons in Primate Visual Cortex. <i>Neuron</i> , 1998, 20, 959-969.	8.1	422
6	Neural Representation and the Cortical Code. <i>Annual Review of Neuroscience</i> , 2000, 23, 613-647.	10.7	371
7	Synaptic Mechanisms of Forward Suppression in Rat Auditory Cortex. <i>Neuron</i> , 2005, 47, 437-445.	8.1	366
8	PINP: A New Method of Tagging Neuronal Populations for Identification during In Vivo Electrophysiological Recording. <i>PLoS ONE</i> , 2009, 4, e6099.	2.5	341
9	Binary Spiking in Auditory Cortex. <i>Journal of Neuroscience</i> , 2003, 23, 7940-7949.	3.6	314
10	Corticostriatal neurons in auditory cortex drive decisions during auditory discrimination. <i>Nature</i> , 2013, 497, 482-485.	27.8	300
11	A critique of pure learning and what artificial neural networks can learn from animal brains. <i>Nature Communications</i> , 2019, 10, 3770.	12.8	285
12	Engaging in an auditory task suppresses responses in auditory cortex. <i>Nature Neuroscience</i> , 2009, 12, 646-654.	14.8	282
13	High-Throughput Mapping of Single-Neuron Projections by Sequencing of Barcoded RNA. <i>Neuron</i> , 2016, 91, 975-987.	8.1	272
14	Linearity of Cortical Receptive Fields Measured with Natural Sounds. <i>Journal of Neuroscience</i> , 2004, 24, 1089-1100.	3.6	260
15	The logic of single-cell projections from visual cortex. <i>Nature</i> , 2018, 556, 51-56.	27.8	244
16	The auditory cortex mediates the perceptual effects of acoustic temporal expectation. <i>Nature Neuroscience</i> , 2011, 14, 246-251.	14.8	237
17	Selective corticostriatal plasticity during acquisition of an auditory discrimination task. <i>Nature</i> , 2015, 521, 348-351.	27.8	216
18	Impact of Synaptic Unreliability on the Information Transmitted by Spiking Neurons. <i>Journal of Neurophysiology</i> , 1998, 79, 1219-1229.	1.8	188

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19	Sources of PCR-induced distortions in high-throughput sequencing data sets. <i>Nucleic Acids Research</i> , 2015, 43, gkv717.	14.5	182
20	Threshold detection of wideband signals: A noise-induced maximum in the mutual information. <i>Physical Review E</i> , 1996, 54, R2185-R2188.	2.1	167
21	High-Throughput Mapping of Long-Range Neuronal Projection Using In Situ Sequencing. <i>Cell</i> , 2019, 179, 772-786.e19.	28.9	146
22	Non-Gaussian Membrane Potential Dynamics Imply Sparse, Synchronous Activity in Auditory Cortex. <i>Journal of Neuroscience</i> , 2006, 26, 12206-12218.	3.6	145
23	Cellular barcoding: lineage tracing, screening and beyond. <i>Nature Methods</i> , 2018, 15, 871-879.	19.0	136
24	Dynamic Stochastic Synapses as Computational Units. <i>Neural Computation</i> , 1999, 11, 903-917.	2.2	125
25	Efficient in situ barcode sequencing using padlock probe-based BaristaSeq. <i>Nucleic Acids Research</i> , 2018, 46, e22-e22.	14.5	120
26	Dynamic Synapses in the Cortex. <i>Neuron</i> , 1997, 19, 1-4.	8.1	118
27	Cellular anatomy of the mouse primary motor cortex. <i>Nature</i> , 2021, 598, 159-166.	27.8	117
28	The functional asymmetry of auditory cortex is reflected in the organization of local cortical circuits. <i>Nature Neuroscience</i> , 2010, 13, 1413-1420.	14.8	91
29	Shared and Private Variability in the Auditory Cortex. <i>Journal of Neurophysiology</i> , 2004, 92, 1840-1855.	1.8	90
30	Sequencing the Connectome. <i>PLoS Biology</i> , 2012, 10, e1001411.	5.6	90
31	Millisecond-scale differences in neural activity in auditory cortex can drive decisions. <i>Nature Neuroscience</i> , 2008, 11, 1262-1263.	14.8	84
32	Correlated Connectivity and the Distribution of Firing Rates in the Neocortex. <i>Journal of Neuroscience</i> , 2009, 29, 3685-3694.	3.6	83
33	Identification of a brainstem locus that inhibits tumor necrosis factor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 29803-29810.	7.1	76
34	Long-Lasting Context Dependence Constrains Neural Encoding Models in Rodent Auditory Cortex. <i>Journal of Neurophysiology</i> , 2009, 102, 2638-2656.	1.8	70
35	Mice and rats achieve similar levels of performance in an adaptive decision-making task. <i>Frontiers in Systems Neuroscience</i> , 2014, 8, 173.	2.5	68
36	Asymmetric Dynamics in Optimal Variance Adaptation. <i>Neural Computation</i> , 1998, 10, 1179-1202.	2.2	64

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37	An International Laboratory for Systems and Computational Neuroscience. <i>Neuron</i> , 2017, 96, 1213-1218.	8.1	60
38	BRICseq Bridges Brain-wide Interregional Connectivity to Neural Activity and Gene Expression in Single Animals. <i>Cell</i> , 2020, 182, 177-188.e27.	28.9	58
39	PTEN Regulation of Local and Long-Range Connections in Mouse Auditory Cortex. <i>Journal of Neuroscience</i> , 2012, 32, 1643-1652.	3.6	56
40	Integrating barcoded neuroanatomy with spatial transcriptional profiling enables identification of gene correlates of projections. <i>Nature Neuroscience</i> , 2021, 24, 873-885.	14.8	55
41	Auditory Thalamus and Auditory Cortex Are Equally Modulated by Context during Flexible Categorization of Sounds. <i>Journal of Neuroscience</i> , 2014, 34, 5291-5301.	3.6	53
42	Differences in Sensitivity to Neural Timing among Cortical Areas. <i>Journal of Neuroscience</i> , 2012, 32, 15142-15147.	3.6	48
43	Long-term Cre-mediated retrograde tagging of neurons using a novel recombinant pseudorabies virus. <i>Frontiers in Neuroanatomy</i> , 2014, 8, 86.	1.7	42
44	Neural Coding: The enigma of the brain. <i>Current Biology</i> , 1995, 5, 1370-1371.	3.9	41
45	Synaptic transmission: Noisy synapses and noisy neurons. <i>Current Biology</i> , 1996, 6, 1217-1218.	3.9	41
46	Sparse Representations for the Cocktail Party Problem. <i>Journal of Neuroscience</i> , 2006, 26, 7477-7490.	3.6	41
47	Representations in auditory cortex. <i>Current Opinion in Neurobiology</i> , 2009, 19, 430-433.	4.2	36
48	In vivo generation of DNA sequence diversity for cellular barcoding. <i>Nucleic Acids Research</i> , 2014, 42, e127-e127.	14.5	36
49	Between the primate and "reptilian" brain: Rodent models demonstrate the role of corticostriatal circuits in decision making. <i>Neuroscience</i> , 2015, 296, 66-74.	2.3	34
50	Up states are rare in awake auditory cortex. <i>Journal of Neurophysiology</i> , 2013, 109, 1989-1995.	1.8	33
51	Reliability and Representational Bandwidth in the Auditory Cortex. <i>Neuron</i> , 2005, 48, 479-488.	8.1	30
52	Using high-throughput barcode sequencing to efficiently map connectomes. <i>Nucleic Acids Research</i> , 2017, 45, e115-e115.	14.5	30
53	The basic unit of computation. <i>Nature Neuroscience</i> , 2000, 3, 1167-1167.	14.8	27
54	Toward the mechanisms of auditory attention. <i>Hearing Research</i> , 2007, 229, 180-185.	2.0	23

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55	A New Defective Helper RNA to Produce Recombinant Sindbis Virus that Infects Neurons but does not Propagate. <i>Frontiers in Neuroanatomy</i> , 2016, 10, 56.	1.7	17
56	BARcode DEmixing through Non-negative Spatial Regression (BarDensr). <i>PLoS Computational Biology</i> , 2021, 17, e1008256.	3.2	16
57	SYNPLA, a method to identify synapses displaying plasticity after learning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 3214-3219.	7.1	10
58	Corticostriatal Plasticity Established by Initial Learning Persists after Behavioral Reversal. <i>ENeuro</i> , 2021, 8, ENEURO.0209-20.2021.	1.9	10
59	Synaptic connectivity and computation. <i>Nature Neuroscience</i> , 2001, 4, 1157-1158.	14.8	9
60	AMPA Receptor Trafficking and GluR1. <i>Science</i> , 2005, 310, 234-235.	12.6	8
61	Thalamocortical Synapses. <i>Neuron</i> , 1999, 23, 198-200.	8.1	7
62	Efficiency measures. <i>Nature</i> , 2006, 439, 920-921.	27.8	6
63	Assessing the replicability of spatial gene expression using atlas data from the adult mouse brain. <i>PLoS Biology</i> , 2021, 19, e3001341.	5.6	6
64	Neural Mechanisms of Selective Auditory Attention in Rats (Dissertation). <i>Nature Precedings</i> , 2008, , .	0.1	3
65	Network cloning using DNA barcodes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 9610-9615.	7.1	3
66	Auditory Modeling Gets an Edge. <i>Journal of Neurophysiology</i> , 2003, 90, 3581-3582.	1.8	2
67	Neural Gallops across Auditory Streams. <i>Neuron</i> , 2005, 48, 5-7.	8.1	2
68	Auditory cortex mediates the perceptual effects of acoustic temporal expectation. <i>Nature Precedings</i> , 2010, , .	0.1	2
69	Sparsification for Monaural Source Separation. <i>Signals and Communication Technology</i> , 2007, , 387-410.	0.5	2
70	Sound processing takes motor control. <i>Nature</i> , 2014, 513, 180-181.	27.8	1
71	Neuronal circuitry and population activity. <i>Current Opinion in Neurobiology</i> , 2007, 17, 395-396.	4.2	0
72	Long-Lasting Context Dependence Constrains Neural Encoding Models in Rodent Auditory Cortex. <i>Nature Precedings</i> , 2008, , .	0.1	0