

# Mark A Stopfer

## List of Publications by Year in descending order

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73  
papers

4,544  
citations

185998

28  
h-index

114278

63  
g-index

80  
all docs

80  
docs citations

80  
times ranked

2972  
citing authors

#	ARTICLE	IF	CITATIONS
1	Impaired odour discrimination on desynchronization of odour-encoding neural assemblies. <i>Nature</i> , 1997, 390, 70-74.	13.7	912
2	Intensity versus Identity Coding in an Olfactory System. <i>Neuron</i> , 2003, 39, 991-1004.	3.8	563
3	Odor Encoding as an Active, Dynamical Process: Experiments, Computation, and Theory. <i>Annual Review of Neuroscience</i> , 2001, 24, 263-297.	5.0	413
4	Short-term memory in olfactory network dynamics. <i>Nature</i> , 1999, 402, 664-668.	13.7	272
5	Model of Transient Oscillatory Synchronization in the Locust Antennal Lobe. <i>Neuron</i> , 2001, 30, 553-567.	3.8	219
6	Encoding a temporally structured stimulus with a temporally structured neural representation. <i>Nature Neuroscience</i> , 2005, 8, 1568-1576.	7.1	155
7	Model of Cellular and Network Mechanisms for Odor-Evoked Temporal Patterning in the Locust Antennal Lobe. <i>Neuron</i> , 2001, 30, 569-581.	3.8	137
8	Sparse odor representation and olfactory learning. <i>Nature Neuroscience</i> , 2008, 11, 1177-1184.	7.1	137
9	Information processing in the olfactory systems of insects and vertebrates. <i>Seminars in Cell and Developmental Biology</i> , 2006, 17, 433-442.	2.3	122
10	Odor-Evoked Neural Oscillations in <i>Drosophila</i> Are Mediated by Widely Branching Interneurons. <i>Journal of Neuroscience</i> , 2009, 29, 8595-8603.	1.7	112
11	Temporally Diverse Firing Patterns in Olfactory Receptor Neurons Underlie Spatiotemporal Neural Codes for Odors. <i>Journal of Neuroscience</i> , 2010, 30, 1994-2006.	1.7	108
12	Adaptive regulation of sparseness by feedforward inhibition. <i>Nature Neuroscience</i> , 2007, 10, 1176-1184.	7.1	92
13	Functional Analysis of a Higher Olfactory Center, the Lateral Horn. <i>Journal of Neuroscience</i> , 2012, 32, 8138-8148.	1.7	92
14	Fast Odor Learning Improves Reliability of Odor Responses in the Locust Antennal Lobe. <i>Neuron</i> , 2005, 46, 483-492.	3.8	84
15	Frequency Transitions in Odor-Evoked Neural Oscillations. <i>Neuron</i> , 2009, 64, 692-706.	3.8	68
16	Synaptic Learning Rules and Sparse Coding in a Model Sensory System. <i>PLoS Computational Biology</i> , 2008, 4, e1000062.	1.5	64
17	Recent dynamics in olfactory population coding. <i>Current Opinion in Neurobiology</i> , 2001, 11, 468-474.	2.0	60
18	Heterosynaptic Facilitation of Tail Sensory Neuron Synaptic Transmission during Habituation in Tail-Induced Tail and Siphon Withdrawal Reflexes of <i>Aplysia</i> . <i>Journal of Neuroscience</i> , 1996, 16, 4933-4948.	1.7	55

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19	Neural Encoding of Odors during Active Sampling and in Turbulent Plumes. <i>Neuron</i> , 2015, 88, 403-418.	3.8	47
20	A Temporal Channel for Information in Sparse Sensory Coding. <i>Current Biology</i> , 2014, 24, 2247-2256.	1.8	43
21	Spatiotemporal Coding of Individual Chemicals by the Gustatory System. <i>Journal of Neuroscience</i> , 2015, 35, 12309-12321.	1.7	43
22	Using the Structure of Inhibitory Networks to Unravel Mechanisms of Spatiotemporal Patterning. <i>Neuron</i> , 2011, 69, 373-386.	3.8	41
23	Mimicking Biological Design and Computing Principles in Artificial Olfaction. <i>ACS Chemical Neuroscience</i> , 2011, 2, 487-499.	1.7	39
24	Dye fills reveal additional olfactory tracts in the protocerebrum of wild-type <i>Drosophila</i> . <i>Journal of Comparative Neurology</i> , 2012, 520, 4131-4140.	0.9	38
25	Gap junctions. <i>Current Biology</i> , 2013, 23, R1026-R1031.	1.8	37
26	Spontaneous Olfactory Receptor Neuron Activity Determines Follower Cell Response Properties. <i>Journal of Neuroscience</i> , 2012, 32, 2900-2910.	1.7	36
27	Site Specificity of Short-Term and Long-Term Habituation in the Tail-Elicited Siphon Withdrawal Reflex of <i>Aplysia</i> . <i>Journal of Neuroscience</i> , 1996, 16, 4923-4932.	1.7	35
28	Central processing in the mushroom bodies. <i>Current Opinion in Insect Science</i> , 2014, 6, 99-103.	2.2	35
29	Feed-Forward versus Feedback Inhibition in a Basic Olfactory Circuit. <i>PLoS Computational Biology</i> , 2015, 11, e1004531.	1.5	34
30	Spatiotemporal Structure of Olfactory Inputs to the Mushroom Bodies. <i>Learning and Memory</i> , 1998, 5, 124-132.	0.5	34
31	Schwann-Cell-Specific Deletion of Phosphatidylinositol 4-Kinase Alpha Causes Aberrant Myelination. <i>Cell Reports</i> , 2018, 23, 2881-2890.	2.9	33
32	Matrix Metalloproteinase-9 Regulates Neuronal Circuit Development and Excitability. <i>Molecular Neurobiology</i> , 2016, 53, 3477-3493.	1.9	30
33	A gustatory second-order neuron that connects sucrose-sensitive primary neurons and a distinct region of the gnathal ganglion in the <i>Drosophila</i> brain. <i>Journal of Neurogenetics</i> , 2015, 29, 144-155.	0.6	27
34	Oscillatory integration windows in neurons. <i>Nature Communications</i> , 2016, 7, 13808.	5.8	24
35	Excitatory Local Interneurons Enhance Tuning of Sensory Information. <i>PLoS Computational Biology</i> , 2012, 8, e1002563.	1.5	21
36	Dynamic Encoding of Odors With Oscillating Neuronal Assemblies in the Locust Brain. <i>Biological Bulletin</i> , 1996, 191, 70-75.	0.7	20

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37	Forward and Back: Motifs of Inhibition in Olfactory Processing. <i>Neuron</i> , 2010, 67, 357-358.	3.8	18
38	Insect olfactory coding and memory at multiple timescales. <i>Current Opinion in Neurobiology</i> , 2011, 21, 768-773.	2.0	18
39	Myelination of peripheral nerves is controlled by PI4KB through regulation of Schwann cell Golgi function. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 28102-28113.	3.3	15
40	Olfactory Processing: Massive Convergence onto Sparse Codes. <i>Current Biology</i> , 2007, 17, R363-R364.	1.8	14
41	Classification of odorants across layers in locust olfactory pathway. <i>Journal of Neurophysiology</i> , 2016, 115, 2303-2316.	0.9	14
42	A Population of Projection Neurons that Inhibits the Lateral Horn but Excites the Antennal Lobe through Chemical Synapses in <i>Drosophila</i> . <i>Frontiers in Neural Circuits</i> , 2017, 11, 30.	1.4	14
43	Olfactory learning and spike timing dependent plasticity. <i>Communicative and Integrative Biology</i> , 2008, 1, 170-171.	0.6	13
44	Trade-Off between Information Format and Capacity in the Olfactory System. <i>Journal of Neuroscience</i> , 2015, 35, 1521-1529.	1.7	13
45	Optimality of sparse olfactory representations is not affected by network plasticity. <i>PLoS Computational Biology</i> , 2020, 16, e1007461.	1.5	13
46	Bilateral olfaction: two is better than one for navigation. <i>Genome Biology</i> , 2008, 9, 212.	13.9	12
47	Feedback inhibition and its control in an insect olfactory circuit. <i>ELife</i> , 2020, 9, .	2.8	11
48	Identification of a reinforcement pathway necessary for operant conditioning of head waving in <i>Aplysia californica</i> . <i>Behavioral and Neural Biology</i> , 1991, 55, 313-337.	2.3	10
49	Evoked ink release in <i>Aplysia</i> produces inhibition of the siphon withdrawal reflex in neighboring conspecifics. <i>Behavioral and Neural Biology</i> , 1993, 60, 196-204.	2.3	9
50	Olfactory Coding: Inhibition Reshapes Odor Responses. <i>Current Biology</i> , 2005, 15, R996-R998.	1.8	9
51	Negative results need airing too. <i>Nature</i> , 2011, 470, 39-39.	13.7	9
52	Development of behavior and learning in <i>Aplysia</i> . <i>Experientia</i> , 1988, 44, 415-423.	1.2	8
53	Quantitative analysis of the relation between gill amplitude and siphon duration in the defensive withdrawal reflex of <i>Aplysia</i> ... <i>Behavioral Neuroscience</i> , 1987, 101, 292-295.	0.6	7
54	Mosquitoes bamboozled. <i>Nature</i> , 2011, 474, 40-41.	13.7	7

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55	Olfactory Coding: Giant Inhibitory Neuron Governs Sparse Odor Codes. <i>Current Biology</i> , 2011, 21, R504-R506.	1.8	7
56	Intimate neuronal whispers. <i>Nature</i> , 2012, 492, 44-45.	13.7	6
57	Peripheral and Central Olfactory Tuning in a Moth. <i>Chemical Senses</i> , 2012, 37, 455-461.	1.1	5
58	Dynamic representation of odours by oscillating neural assemblies. <i>Entomologia Experimentalis Et Applicata</i> , 1999, 91, 7-18.	0.7	3
59	Dual-labeling method for electron microscopy to characterize synaptic connectivity using genetically encoded fluorescent reporters in <i>Drosophila</i> . <i>Journal of Neuroscience Methods</i> , 2011, 194, 312-315.	1.3	3
60	Olfactory Coding: Tagging and Tuning Odor-Activated Synapses for Memory. <i>Current Biology</i> , 2012, 22, R227-R229.	1.8	3
61	Argos: A toolkit for tracking multiple animals in complex visual environments. <i>Methods in Ecology and Evolution</i> , 2022, 13, 585-595.	2.2	3
62	Olfactory Coding: Non-Linear Amplification Separates Smells. <i>Current Biology</i> , 2008, 18, R29-R32.	1.8	2
63	Decision Making: How Fruit Flies Integrate Olfactory Evidence. <i>Current Biology</i> , 2018, 28, R757-R759.	1.8	2
64	Analysis of trial-by-trial variability in stimulus-evoked neural activity. , 2010, 2010, 4320-2.		1
65	Olfactory Coding: A Plastic Approach to Timing Precision. <i>Current Biology</i> , 2007, 17, R797-R799.	1.8	0
66	<i>Olfactory Coding: Unusual Conductances Contribute to Sparse Neural Representation.</i> Focus on "Intrinsic Membrane Properties and Inhibitory Synaptic Input of Kenyon Cells as Mechanisms for Sparse Coding?" <i>Journal of Neurophysiology</i> , 2010, 103, 2-3.	0.9	0
67	New Methods to Study Gustatory Coding. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	0
68	Insect Olfaction: A Model System for Neural Circuit Modeling. , 2013, , 1-7.		0
69	Olfactory Computation in Antennal Lobe and Mushroom Bodies. , 2013, , 1-4.		0
70	Dynamic representation of odours by oscillating neural assemblies. , 1999, , 7-18.		0
71	Insect neuroscience: Filling the knowledge gap on gap junctions. <i>Current Biology</i> , 2022, 32, R420-R423.	1.8	0
72	Olfactory Computation in Antennal Lobe and Mushroom Bodies. , 2022, , 2505-2508.		0

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73	Insect Olfaction: A Model System for Neural Circuit Modeling., 2022,, 1677-1682.		0