Jeffrey S Taube

List of Publications by Year
in descending order

97 papers	8,302 citations	47006 47 h-index	49909 87 g-index
98 all docs	98 docs citations	98 times ranked	3207 citing authors

#	Article	IF	Citations
1	The Head Direction Signal: Origins and Sensory-Motor Integration. Annual Review of Neuroscience, 2007, 30, 181-207.	10.7	1,021
2	Head direction cells and the neurophysiological basis for a sense of direction. Progress in Neurobiology, 1998, 55, 225-256.	5.7	400
3	Comparisons of head direction cell activity in the postsubiculum and anterior thalamus of freely moving rats. Hippocampus, 1998, 8, 87-108.	1.9	381
4	Hippocampal spatial representations require vestibular input. Hippocampus, 2002, 12, 291-303.	1.9	329
5	Firing Properties of Rat Lateral Mammillary Single Units: Head Direction, Head Pitch, and Angular Head Velocity. Journal of Neuroscience, 1998, 18, 9020-9037.	3.6	280
6	Firing Properties of Head Direction Cells in the Rat Anterior Thalamic Nucleus: Dependence on Vestibular Input. Journal of Neuroscience, 1997, 17, 4349-4358.	3.6	266
7	Cue control and head direction cells.. Behavioral Neuroscience, 1998, 112, 749-761.	1.2	223
8	Interaction between the Postsubiculum and Anterior Thalamus in the Generation of Head Direction Cell Activity. Journal of Neuroscience, 1997, 17, 9315-9330.	3.6	210
9	Disruption of the head direction cell network impairs the parahippocampal grid cell signal. Science, 2015, 347, 870-874.	12.6	199
10	Processing the head direction cell signal: A review and commentary. Brain Research Bulletin, 1996, 40, 477-484.	3.0	193
11	Neural Correlates for Angular Head Velocity in the Rat Dorsal Tegmental Nucleus. Journal of Neuroscience, 2001, 21, 5740-5751.	3.6	176
12	Persistent Neural Activity in Head Direction Cells. Cerebral Cortex, 2003, 13, 1162-1172.	2.9	159
13	Head direction cells: properties and functional significance. Current Opinion in Neurobiology, 1996, 6, 196-206.	4.2	158
14	Our sense of direction: progress, controversies and challenges. Nature Neuroscience, 2017, 20, 1465-1473.	14.8	154
15	Hippocampal Place Cell Instability after Lesions of the Head Direction Cell Network. Journal of Neuroscience, 2003, 23, 9719-9731.	3.6	153
16	Passive Transport Disrupts Directional Path Integration by Rat Head Direction Cells. Journal of Neurophysiology, 2003, 90, 2862-2874.	1.8	144
17	The vestibular contribution to the head direction signal and navigation. Frontiers in Integrative Neuroscience, 2014, 8, 32.	2.1	128
18	Is Navigation in Virtual Reality with fMRI Really Navigation?. Journal of Cognitive Neuroscience, 2013, 25, 1008-1019.	2.3	127

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19	Origins of landmark encoding in the brain. Trends in Neurosciences, 2011, 34, 561-571.	8.6	122
20	Preferential use of the landmark navigational system by head direction cells in rats.. Behavioral Neuroscience, 1995, 109, 49-61.	1.2	120
21	Head Direction Cell Activity in Mice: Robust Directional Signal Depends on Intact Otolith Organs. Journal of Neuroscience, 2009, 29, 1061-1076.	3.6	120
22	Lesions of the Tegmentomammillary Circuit in the Head Direction System Disrupt the Head Direction Signal in the Anterior Thalamus. Journal of Neuroscience, 2007, 27, 7564-7577.	3.6	118
23	Path integration: how the head direction signal maintains and corrects spatial orientation. Nature Neuroscience, 2012, 15, 1445-1453.	14.8	118
24	Lesions of the rat postsubiculum impair performance on spatial tasks. Behavioral and Neural Biology, 1992, 57, 131-143.	2.2	116
25	Vestibular and attractor network basis of the head direction cell signal in subcortical circuits. Frontiers in Neural Circuits, 2012, 6, 7.	2.8	114
26	Place cells recorded in the parasubiculum of freely moving rats. Hippocampus, 1995, 5, 569-583.	1.9	113
27	Disruption of the Head Direction Cell Signal after Occlusion of the Semicircular Canals in the Freely Moving Chinchilla. Journal of Neuroscience, 2009, 29, 14521-14533.	3.6	109
28	Electrophysiological properties of neurons in the rat subiculum in vitro. Experimental Brain Research, 1993, 96, 304-18.	1.5	107
29	Where am I and how will I get there from here? A role for posterior parietal cortex in the integration of spatial information and route planning. Neurobiology of Learning and Memory, 2009, 91, 186-196.	1.9	103
30	Impaired Head Direction Cell Representation in the Anterodorsal Thalamus after Lesions of the Retrosplenial Cortex. Journal of Neuroscience, 2010, 30, 5289-5302.	3.6	102
31	Degradation of Head Direction Cell Activity during Inverted Locomotion. Journal of Neuroscience, 2005, 25, 2420-2428.	3.6	101
32	Maintenance of Rat Head Direction Cell Firing During Locomotion in the Vertical Plane. Journal of Neurophysiology, 2000, 83, 393-405.	1.8	87
33	A sense of space in postrhinal cortex. Science, 2019, 365, .	12.6	85
34	Passive Transport Disrupts Grid Signals in the Parahippocampal Cortex. Current Biology, 2015, 25, 2493-2502.	3.9	82
35	Differentiating ascending vestibular pathways to the cortex involved in spatial cognition. Journal of Vestibular Research: Equilibrium and Orientation, 2010, 20, 3-23.	2.0	79
36	Rat Head Direction Cell Responses in Zero-Gravity Parabolic Flight. Journal of Neurophysiology, 2004, 92, 2887-2997.	1.8	75

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37	Head Direction Cells in Rats with Hippocampal or Overlying Neocortical Lesions: Evidence for Impaired Angular Path Integration. Journal of Neuroscience, 1999, 19, 7198-7211.	3.6	73
38	Path integration and lesions within the head direction cell circuit: Comparison between the roles of the anterodorsal thalamus and dorsal tegmental nucleus.. Behavioral Neuroscience, 2006, 120, 135-149.	1.2	72
39	Correlation between head direction cell activity and spatial behavior on a radial arm maze.. Behavioral Neuroscience, 1997, 111, 3-19.	1.2	66
40	Comparisons of head direction cell activity in the postsubiculum and anterior thalamus of freely moving rats. Hippocampus, 1998, 8, 87-108.	1.9	64
41	Effects of repeated disorientation on the acquisition of spatial tasks in rats: Dissociation between the appetitive radial arm maze and aversive water maze.. Journal of Experimental Psychology, 1997, 23, 194-210.	1.7	63
42	Both visual and idiothetic cues contribute to head direction cell stability during navigation along complex routes. Journal of Neurophysiology, 2011, 105, 2989-3001.	1.8	63
43	The Head-Direction Signal Plays a Functional Role as a Neural Compass during Navigation. Current Biology, 2017, 27, 1259-1267.	3.9	63
44	On the behavioral significance of head direction cells: Neural and behavioral dynamics during spatial memory tasks.. Behavioral Neuroscience, 2001, 115, 285-304.	1.2	62
45	Active and passive movement are encoded equally by head direction cells in the anterodorsal thalamus. Journal of Neurophysiology, 2011, 106, 788-800.	1.8	62
46	Updating of the spatial reference frame of head direction cells in response to locomotion in the vertical plane. Journal of Neurophysiology, 2013, 109, 873-888.	1.8	61
47	Head Direction Cell Activity Is Absent in Mice without the Horizontal Semicircular Canals. Journal of Neuroscience, 2016, 36, 741-754.	3.6	61
48	Directional learning, but no spatial mapping by rats performing a navigational task in an inverted orientation. Neurobiology of Learning and Memory, 2010, 93, 495-505.	1.9	58
49	Visual Landmark Information Gains Control of the Head Direction Signal at the Lateral Mammillary Nuclei. Journal of Neuroscience, 2015, 35, 1354-1367.	3.6	51
50	Intracellular recording from hippocampal CA1 interneurons before and after development of long-term potentiation. Brain Research, 1987, 419, 32-38.	2.2	48
51	Ineffectiveness of organic calcium channel blockers in antagonizing long-term potentiation. Brain Research, 1986, 379, 275-285.	2.2	45
52	Intact landmark control and angular path integration by head direction cells in the anterodorsal thalamus after lesions of the medial entorhinal cortex. Hippocampus, 2011, 21, 767-782.	1.9	43
53	Recordings of postsubiculum head direction cells following lesions of the laterodorsal thalamic nucleus. Brain Research, 1998, 780, 9-19.	2.2	39
54	Head direction cell activity in the anterodorsal thalamus requires intact supragenual nuclei. Journal of Neurophysiology, 2012, 108, 2767-2784.	1.8	39

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55	Control of anterodorsal thalamic head direction cells by environmental boundaries: Comparison with conflicting distal landmarks. Hippocampus, 2012, 22, 172-187.	1.9	39
56	Passive Movements of the Head Do Not Abolish Anticipatory Firing Properties of Head Direction Cells. Journal of Neurophysiology, 2005, 93, 1304-1316.	1.8	38
57	Head Direction Cell Instability in the Anterior Dorsal Thalamus after Lesions of the Interpeduncular Nucleus. Journal of Neuroscience, 2009, 29, 493-507.	3.6	36
58	The neural correlates of navigation beyond the hippocampus. Progress in Brain Research, 2015, 219, 83-102.	1.4	36
59	Projections to the anterodorsal thalamus and lateral mammillary nuclei arise from different cell populations within the postsubiculum: Implications for the control of head direction cells. Hippocampus, 2011, 21, 1062-1073.	1.9	35
60	Lesions of the dorsal tegmental nuclei disrupt control of navigation by distal landmarks in cued, directional, and place variants of the Morris water task.. Behavioral Neuroscience, 2013, 127, 566-581.	1.2	35
61	Deficits in landmark navigation and path integration after lesions of the interpeduncular nucleus.. Behavioral Neuroscience, 2009, 123, 490-503.	1.2	33
62	Landmark control and updating of self-movement cues are largely maintained in head direction cells after lesions of the posterior parietal cortex.. Behavioral Neuroscience, 2008, 122, 827-840.	1.2	31
63	Self-motion improves head direction cell tuning. Journal of Neurophysiology, 2014, 111, 2479-2492.	1.8	30
64	The Neural Correlates of Navigation: Do Head Direction and Place Cells Guide Spatial Behavior?. Behavioral and Cognitive Neuroscience Reviews, 2002, 1, 297-317.	3.9	29
65	Head direction cell activity and behavior in a navigation task requiring a cognitive mapping strategy. Behavioural Brain Research, 2004, 153, 249-253.	2.2	29
66	Differences between appetitive and aversive reinforcement on reorientation in a spatial working memory task. Behavioural Brain Research, 2002, 136, 309-316.	2.2	26
67	The Nucleus Prepositus Hypoglossi Contributes to Head Direction Cell Stability in Rats. Journal of Neuroscience, 2015, 35, 2547-2558.	3.6	26
68	Three-dimensional tuning of head direction cells in rats. Journal of Neurophysiology, 2019, 121, 4-37.	1.8	24
69	Interspike Interval Analyses Reveal Irregular Firing Patterns at Short, But Not Long, Intervals in Rat Head Direction Cells. Journal of Neurophysiology, 2010, 104, 1635-1648.	1.8	23
70	Functional and anatomical relationships between the medial precentral cortex, dorsal striatum, and head direction cell circuitry. I. Recording studies. Journal of Neurophysiology, 2019, 121, 350-370.	1.8	23
71	Head direction cell firing properties and behavioural performance in 3â€D space. Journal of Physiology, 2011, 589, 835-841.	2.9	20
72	On the nature of threeâ€dimensional encoding in the cognitive map: Commentary on Hayman, Verriotis, Jovalekic, Fenton, and Jeffery. Hippocampus, 2013, 23, 14-21.	1.9	18

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73	Landmark-modulated directional coding in postrhinal cortex. Science Advances, 2022, 8, eabg8404.	10.3	18
74	Current Promises and Limitations of Combined Virtual Reality and Functional Magnetic Resonance Imaging Research in Humans: A Commentary on Huffman and Ekstrom (). Journal of Cognitive Neuroscience, 2021, 33, 159-166.	2.3	16
75	Head Direction Cells: From Generation to Integration. , 2014, , 83-106.		15
76	Resolving the active versus passive conundrum for head direction cells. Neuroscience, 2014, 270, 123-138.	2.3	13
77	Oscillatory synchrony between head direction cells recorded bilaterally in the anterodorsal thalamic nuclei. Journal of Neurophysiology, 2017, 117, 1847-1852.	1.8	13
78	A Comparison of Neural Decoding Methods and Population Coding Across Thalamo-Cortical Head Direction Cells. Frontiers in Neural Circuits, 2019, 13, 75.	2.8	12
79	Space, the final hippocampal frontier?. Hippocampus, 1991, 1, 247-249.	1.9	9
80	Functional and anatomical relationships between the medial precentral cortex, dorsal striatum, and head direction cell circuitry. II. Neuroanatomical studies. Journal of Neurophysiology, 2019, 121, 371-395.	1.8	9
81	Bilateral postsubiculum lesions impair visual and nonvisual homing performance in rats.. Behavioral Neuroscience, 2019, 133, 496-507.	1.2	8
82	Spatial context and the functional role of the postrhinal cortex. Neurobiology of Learning and Memory, 2022, 189, 107596.	1.9	8
83	Some thoughts on place cells and the hippocampus. , 1999, 9, 452-457.		7
84	Visualâ€“vestibular interactions. , 2020, , 201-219.		7
85	Acetylcholine contributes to the integration of self-movement cues in head direction cells.. Behavioral Neuroscience, 2017, 131, 312-324.	1.2	6
86	Commutative Properties of Head Direction Cells during Locomotion in 3D: Are All Routes Equal?. Journal of Neuroscience, 2020, 40, 3035-3051.	3.6	6
87	Statistical and information properties of head direction cells. Perception & Psychophysics, 2001, 63, 1026-1037.	2.3	4
88	New building blocks for navigation. Nature Neuroscience, 2017, 20, 131-133.	14.8	4
89	Comparisons of head direction cell activity in the postsubiculum and anterior thalamus of freely moving rats. , 1998, 8, 87.		3
90	Reply to Laurens and Angelaki: A model-based reassessment of the three-dimensional tuning of head direction cells in rats. Journal of Neurophysiology, 2019, 122, 1288-1289.	1.8	2

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91	Sensory Determinants of Head Direction Cell Activity. , 2002, , 141-161.		2
92	Neural Representations Supporting Spatial Navigation and Memory. , 2007, , 219-248.		2
93	In Vivo Electrophysiological Approaches for Studying Head Direction Cells. Handbook of Behavioral Neuroscience, 2018, , 169-187.	0.7	1
94	On the absence or presence of 3D tuned head direction cells in rats: a review and rebuttal. Journal of Neurophysiology, 2020, 123, 1808-1827.	1.8	1
95	Anatomical projections to the dorsal tegmental nucleus and abducens nucleus arise from separate cell populations in the nucleus prepositus hypoglossi, but overlapping cell populations in the medial vestibular nucleus. Journal of Comparative Neurology, 2021, 529, 2706-2726.	1.6	0
96	Neural Representations of Direction (Head Direction Cells). , 2015, , 623-627.		0
97	The Impact of Vestibular Signals on Cells Responsible for Orientation and Navigation. , 2020, , 496-511.		0