Kathryn J Jeffery

List of Publications by Year
in descending order

93 papers	5,959 citations	101543 36 h-index	85541 71 g-index
104 all docs	104 docs citations	104 times ranked	3524 citing authors

#	Article	IF	Citations
1	Path integration in mammals. Hippocampus, 2004, 14, 180-192.	1.9	567
2	Experience-dependent rescaling of entorhinal grids. Nature Neuroscience, 2007, 10, 682-684.	14.8	489
3	Integration of visual motion and locomotion in mouse visual cortex. Nature Neuroscience, 2013, 16, 1864-1869.	14.8	353
4	The Boundary Vector Cell Model of Place Cell Firing and Spatial Memory. Reviews in the Neurosciences, 2006, 17, 71-97.	2.9	316
5	Heterogeneous Modulation of Place Cell Firing by Changes in Context. Journal of Neuroscience, 2003, 23, 8827-8835.	3.6	292
6	Place cells, navigational accuracy, and the human hippocampus. Philosophical Transactions of the Royal Society B: Biological Sciences, 1998, 353, 1333-1340.	4.0	236
7	An independent, landmark-dominated head-direction signal in dysgranular retrosplenial cortex. Nature Neuroscience, 2017, 20, 173-175.	14.8	198
8	Retrosplenial cortex and its role in spatial cognition. Brain and Neuroscience Advances, 2018, 2, 239821281875709.	3.4	186
9	Anisotropic encoding of three-dimensional space by place cells and grid cells. Nature Neuroscience, 2011, 14, 1182-1188.	14.8	160
10	The representation of space in the brain. Behavioural Processes, 2017, 135, 113-131.	1.1	156
11	Cumulative long-term potentiation in the rat dentate gyrus correlates with, but does not modify, performance in the water maze. Hippocampus, 1993, 3, 133-140.	1.9	121
12	Place Field Repetition and Purely Local Remapping in a Multicompartment Environment. Cerebral Cortex, 2015, 25, 10-25.	2.9	112
13	Grid Cells Form a Global Representation of Connected Environments. Current Biology, 2015, 25, 1176-1182.	3.9	112
14	Robotic and neuronal simulation of the hippocampus and rat navigation. Philosophical Transactions of the Royal Society B: Biological Sciences, 1997, 352, 1535-1543.	4.0	110
15	Preserved performance in a hippocampal-dependent spatial task despite complete place cell remapping. Hippocampus, 2003, 13, 175-189.	1.9	104
16	Navigating in a three-dimensional world. Behavioral and Brain Sciences, 2013, 36, 523-543.	0.7	104
17	Induction of Fos-like immunoreactivity and the maintenance of long-term potentiation in the dentate gyrus of unanesthetized rats. Molecular Brain Research, 1990, 8, 267-274.	2.3	103
18	Integration of the sensory inputs to place cells: What, where, why, and how?. Hippocampus, 2007, 17, 775-785.	1.9	101

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19	Learned interaction of visual and idiothetic cues in the control of place field orientation. Experimental Brain Research, 1999, 127, 151-161.	1.5	99
20	A proposed architecture for the neural representation of spatial context. Neuroscience and Biobehavioral Reviews, 2004, 28, 201-218.	6.1	94
21	Directional control of hippocampal place fields. Experimental Brain Research, 1997, 117, 131-142.	1.5	82
22	A metric for the cognitive map: found at last?. Trends in Cognitive Sciences, 2006, 10, 1-3.	7.8	82
23	Horizontal biases in ratsâ€™ use of three-dimensional space. Behavioural Brain Research, 2011, 222, 279-288.	2.2	79
24	Medial septal control of theta-correlated unit firing in the entorhinal cortex of awake rats. NeuroReport, 1995, 6, 2166-2170.	1.2	76
25	Context-specific acquisition of location discrimination by hippocampal place cells. European Journal of Neuroscience, 2003, 18, 2825-2834.	2.6	74
26	How heterogeneous place cell responding arises from homogeneous gridsâ€"A contextual gating hypothesis. Hippocampus, 2008, 18, 1301-1313.	1.9	67
27	LTP and spatial learning?Where to next?. Hippocampus, 1997, 7, 95-110.	1.9	65
28	A role for terrain slope in orienting hippocampal place fields. Experimental Brain Research, 2006, 169, 218-225.	1.5	64
29	Dissociation of the geometric and contextual influences on place cells. Hippocampus, 2003, 13, 868-872.	1.9	62
30	Learning of landmark stability and instability by hippocampal place cells. Neuropharmacology, 1998, 37, 677-687.	4.1	60
31	Do rats use shape to solve "shape discriminations"?. Learning and Memory, 2006, 13, 287-297.	1.3	59
32	Neural encoding of large-scale three-dimensional spaceâ€"properties and constraints. Frontiers in Psychology, 2015, 6, 927.	2.1	57
33	Grid Cells Encode Local Positional Information. Current Biology, 2017, 27, 2337-2343.e3.	3.9	54
34	Multivoxel Pattern Analysis Reveals 3D Place Information in the Human Hippocampus. Journal of Neuroscience, 2017, 37, 4270-4279.	3.6	49
35	The place-cell representation of volumetric space in rats. Nature Communications, 2020, 11, 789.	12.8	49
36	Modifiable neuronal connections: an overview for psychiatrists. American Journal of Psychiatry, 1997, 154, 156-164.	7.2	46

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37	Weighted cue integration in the rodent head direction system. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20120512.	4.0	44
38	Behavioral correlates of the distributed coding of spatial context. Hippocampus, 2006, 16, 730-742.	1.9	43
39	The Hippocampus: From Memory, to Map, to Memory Map. Trends in Neurosciences, 2018, 41, 64-66.	8.6	43
40	Retrosplenial and postsubicular head direction cells compared during visual landmark discrimination. Brain and Neuroscience Advances, 2017, 1, 239821281772185.	3.4	42
41	Purely Translational Realignment in Grid Cell Firing Patterns Following Nonmetric Context Change. Cerebral Cortex, 2015, 25, 4619-4627.	2.9	41
42	Place Cells, Grid Cells, Attractors, and Remapping. Neural Plasticity, 2011, 2011, 1-11.	2.2	40
43	Landmark-Based Updating of the Head Direction System by Retrosplenial Cortex: A Computational Model. Frontiers in Cellular Neuroscience, 2018, 12, 191.	3.7	40
44	Insensitivity of place cells to the value of spatial goals in a two-choice flexible navigation task. Journal of Neuroscience, 2019, 39, 1578-18.	3.6	37
45	Irregular distribution of grid cell firing fields in rats exploring a 3D volumetric space. Nature Neuroscience, 2021, 24, 1567-1573.	14.8	35
46	Geometric Cues Influence Head Direction Cells Only Weakly in Nondisoriented Rats. Journal of Neuroscience, 2011, 31, 15681-15692.	3.6	34
47	A dual-axis rotation rule for updating the head direction cell reference frame during movement in three dimensions. Journal of Neurophysiology, 2018, 119, 192-208.	1.8	33
48	Plasticity of the Hippocampal Place Cell Representation. Reviews in the Neurosciences, 2004, 15, 309-31.	2.9	32
49	Self-localization and the entorhinalâ€"hippocampal system. Current Opinion in Neurobiology, 2007, 17, 684-691.	4.2	32
50	Grid cells on steeply sloping terrain: evidence for planar rather than volumetric encoding. Frontiers in Psychology, 2015, 6, 925.	2.1	30
51	On the Statistical Mechanics of Life: SchrÃ¶dinger Revisited. Entropy, 2019, 21, 1211.	2.2	30
52	Hippocampal place cells encode global location but not connectivity in a complex space. Current Biology, 2021, 31, 1221-1233.e9.	3.9	30
53	Altered neural odometry in the vertical dimension. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4631-4636.	7.1	29
54	Theoretical accounts of spatial learning: A neurobiological view (commentary on Pearce, 2009). Quarterly Journal of Experimental Psychology, 2010, 63, 1683-1699.	1.1	22

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55	Differential effects of spaced vs. massed training in long-term object-identity and object-location recognition memory. Behavioural Brain Research, 2013, 250, 102-113.	2.2	21
56	A theoretical account of cue averaging in the rodent head direction system. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130283.	4.0	20
57	Optimal cue combination and landmarkâ€stability learning in the head direction system. Journal of Physiology, 2016, 594, 6527-6534.	2.9	20
58	How Can Neuroscientists Respond to the Climate Emergency?. Neuron, 2020, 106, 17-20.	8.1	18
59	Evidence for two distinct thalamocortical circuits in retrosplenial cortex. Neurobiology of Learning and Memory, 2021, 185, 107525.	1.9	16
60	Climate crisis and ecological emergency: Why they concern (neuro)scientists, and what we can do. Brain and Neuroscience Advances, 2022, 6, 239821282210754.	3.4	15
61	Paradoxical enhancement of long-term potentiation in poor-learning rats at low test stimulus intensities. Experimental Brain Research, 1995, 104, 55-69.	1.5	13
62	Spatial learning by mice in three dimensions. Behavioural Brain Research, 2015, 289, 125-132.	2.2	12
63	Urban Architecture: A Cognitive Neuroscience Perspective. Design Journal, 2019, 22, 853-872.	0.8	12
64	Remembrance of futures past. Trends in Cognitive Sciences, 2004, 8, 197-199.	7.8	11
65	Transitions in Brain Evolution: Space, Time and Entropy. Trends in Neurosciences, 2020, 43, 467-474.	8.6	11
66	Place, space and memory cells. Current Biology, 2012, 22, R939-R942.	3.9	9
67	A framework for three-dimensional navigation research. Behavioral and Brain Sciences, 2013, 36, 571-587.	0.7	9
68	How environmental movement constraints shape the neural code for space. Cognitive Processing, 2021, 22, 97-104.	1.4	9
69	Do discrimination tasks discourage multi-dimensional stimulus processing?Evidence from a cross-modal object discrimination in rats. Behavioural Brain Research, 2007, 183, 213-221.	2.2	8
70	Spatial Cognition: Entorhinal Cortex and the Hippocampal Place-Cell Map. Current Biology, 2015, 25, R1181-R1183.	3.9	8
71	Context-independent directional cue learning by hippocampal place cells. European Journal of Neuroscience, 2004, 20, 281-292.	2.6	7
72	The fuzzy-boundary arenaâ€"A method for constraining an animal's range in spatial experiments without using walls. Journal of Neuroscience Methods, 2008, 167, 184-190.	2.5	6

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73	Distorting the metric fabric of the cognitive map. Trends in Cognitive Sciences, 2015, 19, 300-301.	7.8	6
74	Hippocampus and its interactions within the medial temporal lobe. Hippocampus, 2007, 17, 693-696.	1.9	5
75	Worm holes and avian space-time. Nature, 1998, 395, 215-216.	27.8	4
76	Plasticity of the Hippocampal Cellular Representation of Space. , 2000, , 100-122.		4
77	Social Spaces: Place Cells Represent the Locations of Others. Current Biology, 2018, 28, R271-R273.	3.9	4
78	Hippocampal Neurons: Simulating the Spatial Structure of a Complex Maze. Current Biology, 2014, 24, R643-R645.	3.9	3
79	Cognitive representations of spatial location. Brain and Neuroscience Advances, 2018, 2, 239821281881068.	3.4	3
80	Computational and biological perspectives on the problem of navigation. Connection Science, 2005, 17, 1-4.	3.0	2
81	Spatial Memory. , 2017, , 209-231.		2
82	What does climate change mean for occupational health professionals?. Occupational Medicine, 2020, 70, 386-388.	1.4	2
83	Visual imagination and cognitive mapping of a virtual building. Journal of Navigation, 2022, 75, 1-14.	1.7	2
84	Neural Odometry: The Discrete Charm of the Entorhinal Cortex. Current Biology, 2013, 23, R204-R206.	3.9	1
85	Spatial Mapping: Graded Precision of Entorhinal Head Direction Cells. Current Biology, 2014, 24, R113-R114.	3.9	1
86	Hidden Depths in the Hippocampal Circuitry. Neuron, 2016, 91, 499-501.	8.1	1
87	Neural Recording Using Digital Telemetry. Neuromethods, 2011, , 77-101.	0.3	1
88	The Place Cellsâ€"Cognitive Map or Memory System?. , 2008, , 59-72.		1
89	LTP â€" A mechanism in search of a function. Behavioral and Brain Sciences, 2000, 23, 286-287.	0.7	0
90	Who moved my cheese (again)?. Nature Neuroscience, 2010, 13, 911-912.	14.8	0

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91	Recording the Spatial Mapping Cells: Place, Head Direction, and Grid Cells. Handbook of Behavioral Neuroscience, 2018, 28, 95-121.	0.7	0
92	Editorial: Coding for Spatial Orientation in Humans and Animals: Behavior, Circuits and Neurons. Frontiers in Neural Circuits, 2020, 14, 619073.	2.8	0
93	The Structural Logic of the Brainâ€™s Representation of Space: How Studies in Rodents can Inform Architectural Design for Humans. , 2022, , .		0