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	Visual imagination and cognitive mapping of a virtual building. Journal of Navigation, 2022, 75, 1-14.	1.7	2
2	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
3	The Structural Logic of the Brainâ€™s Representation of Space: How Studies in Rodents can Inform Architectural Design for Humans. , 2022, , .		0
4	Hippocampal place cells encode global location but not connectivity in a complex space. Current Biology, 2021, 31, 1221-1233.e9.	3.9	30
5	How environmental movement constraints shape the neural code for space. Cognitive Processing, 2021, 22, 97-104.	1.4	9
6	Irregular distribution of grid cell firing fields in rats exploring a 3D volumetric space. Nature Neuroscience, 2021, 24, 1567-1573.	14.8	35
7	Evidence for two distinct thalamocortical circuits in retrosplenial cortex. Neurobiology of Learning and Memory, 2021, 185, 107525.	1.9	16
8	How Can Neuroscientists Respond to the Climate Emergency?. Neuron, 2020, 106, 17-20.	8.1	18
9	Editorial: Coding for Spatial Orientation in Humans and Animals: Behavior, Circuits and Neurons. Frontiers in Neural Circuits, 2020, 14, 619073.	2.8	0
10	What does climate change mean for occupational health professionals?. Occupational Medicine, 2020, 70, 386-388.	1.4	2
11	The place-cell representation of volumetric space in rats. Nature Communications, 2020, 11, 789.	12.8	49
12	Transitions in Brain Evolution: Space, Time and Entropy. Trends in Neurosciences, 2020, 43, 467-474.	8.6	11
13	Urban Architecture: A Cognitive Neuroscience Perspective. Design Journal, 2019, 22, 853-872.	0.8	12
14	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
15	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
16	On the Statistical Mechanics of Life: SchrÃ¶dinger Revisited. Entropy, 2019, 21, 1211.	2.2	30
17	The Hippocampus: From Memory, to Map, to Memory Map. Trends in Neurosciences, 2018, 41, 64-66.	8.6	43
18	Social Spaces: Place Cells Represent the Locations of Others. Current Biology, 2018, 28, R271-R273.	3.9	4

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19	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
20	Cognitive representations of spatial location. Brain and Neuroscience Advances, 2018, 2, 239821281881068.	3.4	3
21	Recording the Spatial Mapping Cells: Place, Head Direction, and Grid Cells. Handbook of Behavioral Neuroscience, 2018, 28, 95-121.	0.7	0
22	Retrosplenial cortex and its role in spatial cognition. Brain and Neuroscience Advances, 2018, 2, 239821281875709.	3.4	186
23	Landmark-Based Updating of the Head Direction System by Retrosplenial Cortex: A Computational Model. Frontiers in Cellular Neuroscience, 2018, 12, 191.	3.7	40
24	Multivoxel Pattern Analysis Reveals 3D Place Information in the Human Hippocampus. Journal of Neuroscience, 2017, 37, 4270-4279.	3.6	49
25	The representation of space in the brain. Behavioural Processes, 2017, 135, 113-131.	1.1	156
26	An independent, landmark-dominated head-direction signal in dysgranular retrosplenial cortex. Nature Neuroscience, 2017, 20, 173-175.	14.8	198
27	Grid Cells Encode Local Positional Information. Current Biology, 2017, 27, 2337-2343.e3.	3.9	54
28	Retrosplenial and postsubicular head direction cells compared during visual landmark discrimination. Brain and Neuroscience Advances, 2017, 1, 239821281772185.	3.4	42
29	Spatial Memory. , 2017, , 209-231.		2
30	Hidden Depths in the Hippocampal Circuitry. Neuron, 2016, 91, 499-501.	8.1	1
31	Optimal cue combination and landmarkâ€stability learning in the head direction system. Journal of Physiology, 2016, 594, 6527-6534.	2.9	20
32	Grid cells on steeply sloping terrain: evidence for planar rather than volumetric encoding. Frontiers in Psychology, 2015, 6, 925.	2.1	30
33	Neural encoding of large-scale three-dimensional spaceâ€"properties and constraints. Frontiers in Psychology, 2015, 6, 927.	2.1	57
34	Purely Translational Realignment in Grid Cell Firing Patterns Following Nonmetric Context Change. Cerebral Cortex, 2015, 25, 4619-4627.	2.9	41
35	Spatial Cognition: Entorhinal Cortex and the Hippocampal Place-Cell Map. Current Biology, 2015, 25, R1181-R1183.	3.9	8
36	Place Field Repetition and Purely Local Remapping in a Multicompartment Environment. Cerebral Cortex, 2015, 25, 10-25.	2.9	112

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37	Spatial learning by mice in three dimensions. Behavioural Brain Research, 2015, 289, 125-132.	2.2	12
38	Grid Cells Form a Global Representation of Connected Environments. Current Biology, 2015, 25, 1176-1182.	3.9	112
39	Distorting the metric fabric of the cognitive map. Trends in Cognitive Sciences, 2015, 19, 300-301.	7.8	6
40	Weighted cue integration in the rodent head direction system. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20120512.	4.0	44
41	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
42	Spatial Mapping: Graded Precision of Entorhinal Head Direction Cells. Current Biology, 2014, 24, R113-R114.	3.9	1
43	Hippocampal Neurons: Simulating the Spatial Structure of a Complex Maze. Current Biology, 2014, 24, R643-R645.	3.9	3
44	Integration of visual motion and locomotion in mouse visual cortex. Nature Neuroscience, 2013, 16, 1864-1869.	14.8	353
45	Navigating in a three-dimensional world. Behavioral and Brain Sciences, 2013, 36, 523-543.	0.7	104
46	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
47	Neural Odometry: The Discrete Charm of the Entorhinal Cortex. Current Biology, 2013, 23, R204-R206.	3.9	1
48	A framework for three-dimensional navigation research. Behavioral and Brain Sciences, 2013, 36, 571-587.	0.7	9
49	Place, space and memory cells. Current Biology, 2012, 22, R939-R942.	3.9	9
50	Horizontal biases in ratsâ€™ use of three-dimensional space. Behavioural Brain Research, 2011, 222, 279-288.	2.2	79
51	Geometric Cues Influence Head Direction Cells Only Weakly in Nondisoriented Rats. Journal of Neuroscience, 2011, 31, 15681-15692.	3.6	34
52	Place Cells, Grid Cells, Attractors, and Remapping. Neural Plasticity, 2011, 2011, 1-11.	2.2	40
53	Anisotropic encoding of three-dimensional space by place cells and grid cells. Nature Neuroscience, 2011, 14, 1182-1188.	14.8	160
54	Neural Recording Using Digital Telemetry. Neuromethods, 2011, , 77-101.	0.3	1

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55	Who moved my cheese (again)?. Nature Neuroscience, 2010, 13, 911-912.	14.8	0
56	Theoretical accounts of spatial learning: A neurobiological view (commentary on Pearce, 2009). Quarterly Journal of Experimental Psychology, 2010, 63, 1683-1699.	1.1	22
57	How heterogeneous place cell responding arises from homogeneous gridsâ€"A contextual gating hypothesis. Hippocampus, 2008, 18, 1301-1313.	1.9	67
58	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
59	The Place Cellsâ€"Cognitive Map or Memory System?. , 2008, , 59-72.		1
60	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
61	Integration of the sensory inputs to place cells: What, where, why, and how?. Hippocampus, 2007, 17, 775-785.	1.9	101
62	Hippocampus and its interactions within the medial temporal lobe. Hippocampus, 2007, 17, 693-696.	1.9	5
63	Experience-dependent rescaling of entorhinal grids. Nature Neuroscience, 2007, 10, 682-684.	14.8	489
64	Self-localization and the entorhinalâ€"hippocampal system. Current Opinion in Neurobiology, 2007, 17, 684-691.	4.2	32
65	A metric for the cognitive map: found at last?. Trends in Cognitive Sciences, 2006, 10, 1-3.	7.8	82
66	A role for terrain slope in orienting hippocampal place fields. Experimental Brain Research, 2006, 169, 218-225.	1.5	64
67	Behavioral correlates of the distributed coding of spatial context. Hippocampus, 2006, 16, 730-742.	1.9	43
68	The Boundary Vector Cell Model of Place Cell Firing and Spatial Memory. Reviews in the Neurosciences, 2006, 17, 71-97.	2.9	316
69	Do rats use shape to solve "shape discriminations"?. Learning and Memory, 2006, 13, 287-297.	1.3	59
70	Computational and biological perspectives on the problem of navigation. Connection Science, 2005, 17, 1-4.	3.0	2
71	Plasticity of the Hippocampal Place Cell Representation. Reviews in the Neurosciences, 2004, 15, 309-31.	2.9	32
72	Context-independent directional cue learning by hippocampal place cells. European Journal of Neuroscience, 2004, 20, 281-292.	2.6	7

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73	A proposed architecture for the neural representation of spatial context. Neuroscience and Biobehavioral Reviews, 2004, 28, 201-218.	6.1	94
74	Path integration in mammals. Hippocampus, 2004, 14, 180-192.	1.9	567
75	Remembrance of futures past. Trends in Cognitive Sciences, 2004, 8, 197-199.	7.8	11
76	Preserved performance in a hippocampal-dependent spatial task despite complete place cell remapping. Hippocampus, 2003, 13, 175-189.	1.9	104
77	Dissociation of the geometric and contextual influences on place cells. Hippocampus, 2003, 13, 868-872.	1.9	62
78	Context-specific acquisition of location discrimination by hippocampal place cells. European Journal of Neuroscience, 2003, 18, 2825-2834.	2.6	74
79	Heterogeneous Modulation of Place Cell Firing by Changes in Context. Journal of Neuroscience, 2003, 23, 8827-8835.	3.6	292
80	Plasticity of the Hippocampal Cellular Representation of Space. , 2000, , 100-122.		4
81	LTP â€" A mechanism in search of a function. Behavioral and Brain Sciences, 2000, 23, 286-287.	0.7	0
82	Learned interaction of visual and idiothetic cues in the control of place field orientation. Experimental Brain Research, 1999, 127, 151-161.	1.5	99
83	Worm holes and avian space-time. Nature, 1998, 395, 215-216.	27.8	4
84	Learning of landmark stability and instability by hippocampal place cells. Neuropharmacology, 1998, 37, 677-687.	4.1	60
85	Place cells, navigational accuracy, and the human hippocampus. Philosophical Transactions of the Royal Society B: Biological Sciences, 1998, 353, 1333-1340.	4.0	236
86	Modifiable neuronal connections: an overview for psychiatrists. American Journal of Psychiatry, 1997, 154, 156-164.	7.2	46
87	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
88	Directional control of hippocampal place fields. Experimental Brain Research, 1997, 117, 131-142.	1.5	82
89	LTP and spatial learning?Where to next?. Hippocampus, 1997, 7, 95-110.	1.9	65
90	Medial septal control of theta-correlated unit firing in the entorhinal cortex of awake rats. NeuroReport, 1995, 6, 2166-2170.	1.2	76

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91	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
92	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
93	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