

# Lisa M Giocomo

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

57  
papers

2,498  
citations

23  
h-index

49  
g-index

69  
ext. papers

3,111  
ext. citations

13.7  
avg, IF

5.56  
L-index

#	Paper	IF	Citations
57	Experience-dependent contextual codes in the hippocampus. <i>Nature Neuroscience</i> , <b>2021</b> , 24, 705-714	25.5	9
56	Spatial memory: Place cell activity is causally related to behavior. <i>Current Biology</i> , <b>2021</b> , 31, R335-R337	6.3	0
55	Mouse entorhinal cortex encodes a diverse repertoire of self-motion signals. <i>Nature Communications</i> , <b>2021</b> , 12, 671	17.4	7
54	Navigating for reward. <i>Nature Reviews Neuroscience</i> , <b>2021</b> , 22, 472-487	13.5	5
53	The grid code for ordered experience. <i>Nature Reviews Neuroscience</i> , <b>2021</b> , 22, 637-649	13.5	4
52	Distance-tuned neurons drive specialized path integration calculations in medial entorhinal cortex. <i>Cell Reports</i> , <b>2021</b> , 36, 109669	10.6	2
51	Dynamic and reversible remapping of network representations in an unchanging environment. <i>Neuron</i> , <b>2021</b> , 109, 2967-2980.e11	13.9	2
50	Topography in the Bursting Dynamics of Entorhinal Neurons. <i>Cell Reports</i> , <b>2020</b> , 30, 2349-2359.e7	10.6	7
49	Multiple head direction signals within entorhinal cortex: origin and function. <i>Current Opinion in Neurobiology</i> , <b>2020</b> , 64, 32-40	7.6	6
48	Entorhinal velocity signals reflect environmental geometry. <i>Nature Neuroscience</i> , <b>2020</b> , 23, 239-251	25.5	19
47	Remembered reward locations restructure entorhinal spatial maps. <i>Science</i> , <b>2019</b> , 363, 1447-1452	33.3	61
46	The Shifting Sands of Cortical Divisions. <i>Neuron</i> , <b>2019</b> , 102, 8-11	13.9	1
45	Heterogeneity in hippocampal place coding. <i>Current Opinion in Neurobiology</i> , <b>2018</b> , 49, 158-167	7.6	13
44	From entorhinal neural codes to navigation. <i>Nature Neuroscience</i> , <b>2018</b> , 21, 7-8	25.5	
43	Grid scale drives the scale and long-term stability of place maps. <i>Nature Neuroscience</i> , <b>2018</b> , 21, 270-282	25.5	22
42	Principles governing the integration of landmark and self-motion cues in entorhinal cortical codes for navigation. <i>Nature Neuroscience</i> , <b>2018</b> , 21, 1096-1106	25.5	80
41	Self-motion processing in visual and entorhinal cortices: inputs, integration, and implications for position coding. <i>Journal of Neurophysiology</i> , <b>2018</b> , 120, 2091-2106	3.2	8

40	Emergent elasticity in the neural code for space. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E11798-E11806	11.5	42
39	A Multiplexed, Heterogeneous, and Adaptive Code for Navigation in Medial Entorhinal Cortex. <i>Neuron</i> , <b>2017</b> , 94, 375-387.e7	13.9	133
38	Cell types for our sense of location: where we are and where we are going. <i>Nature Neuroscience</i> , <b>2017</b> , 20, 1474-1482	25.5	24
37	Environmental boundaries as a mechanism for correcting and anchoring spatial maps. <i>Journal of Physiology</i> , <b>2016</b> , 594, 6501-6511	3.9	21
36	Spatial representation: maps of fragmented space. <i>Current Biology</i> , <b>2015</b> , 25, R362-3	6.3	5
35	Environmental boundaries as an error correction mechanism for grid cells. <i>Neuron</i> , <b>2015</b> , 86, 827-39	13.9	140
34	Neuroscience: Internal compass puts flies in their place. <i>Nature</i> , <b>2015</b> , 521, 165-6	50.4	2
33	Computational diversity in the hippocampus: a matter of components. <i>Journal of Physiology</i> , <b>2015</b> , 593, 1525-6	3.9	
32	Large scale in vivo recordings to study neuronal biophysics. <i>Current Opinion in Neurobiology</i> , <b>2015</b> , 32, 1-7	7.6	4
31	Imagine a journey through time and space. <i>Nature Neuroscience</i> , <b>2015</b> , 18, 163-4	25.5	
30	Topography of head direction cells in medial entorhinal cortex. <i>Current Biology</i> , <b>2014</b> , 24, 252-62	6.3	88
29	Hyperpolarization-activated cyclic nucleotide-gated 1 independent grid cell-phase precession in mice. <i>Hippocampus</i> , <b>2014</b> , 24, 249-56	3.5	19
28	The neural encoding of space in parahippocampal cortices. <i>Frontiers in Neural Circuits</i> , <b>2012</b> , 6, 53	3.5	2
27	Phase precession and variable spatial scaling in a periodic attractor map model of medial entorhinal grid cells with realistic after-spike dynamics. <i>Hippocampus</i> , <b>2012</b> , 22, 772-89	3.5	116
26	Grid cells use HCN1 channels for spatial scaling. <i>Cell</i> , <b>2011</b> , 147, 1159-70	56.2	116
25	Computational models of grid cells. <i>Neuron</i> , <b>2011</b> , 71, 589-603	13.9	164
24	Spatial representation: maps in a temporal void. <i>Current Biology</i> , <b>2011</b> , 21, R962-4	6.3	3
23	Frequency of subthreshold oscillations at different membrane potential voltages in neurons at different anatomical positions on the dorsoventral axis in the rat medial entorhinal cortex. <i>Journal of Neuroscience</i> , <b>2011</b> , 31, 12683-94	6.6	41

22	Cholinergic modulation of the resonance properties of stellate cells in layer II of medial entorhinal cortex. <i>Journal of Neurophysiology</i> , <b>2010</b> , 104, 258-70	3.2	82
21	Cellular dynamical mechanisms for encoding the time and place of events along spatiotemporal trajectories in episodic memory. <i>Behavioural Brain Research</i> , <b>2010</b> , 215, 261-74	3.4	32
20	Evaluation of the oscillatory interference model of grid cell firing through analysis and measured period variance of some biological oscillators. <i>PLoS Computational Biology</i> , <b>2009</b> , 5, e1000573	5	49
19	Knock-out of HCN1 subunit flattens dorsal-ventral frequency gradient of medial entorhinal neurons in adult mice. <i>Journal of Neuroscience</i> , <b>2009</b> , 29, 7625-30	6.6	94
18	A phase code for memory could arise from circuit mechanisms in entorhinal cortex. <i>Neural Networks</i> , <b>2009</b> , 22, 1129-38	9.1	19
17	Time constants of h current in layer ii stellate cells differ along the dorsal to ventral axis of medial entorhinal cortex. <i>Journal of Neuroscience</i> , <b>2008</b> , 28, 9414-25	6.6	94
16	Computation by oscillations: implications of experimental data for theoretical models of grid cells. <i>Hippocampus</i> , <b>2008</b> , 18, 1186-99	3.5	60
15	Mechanisms for Memory-Guided Behavior Involving Persistent Firing and Theta Rhythm Oscillations in the Entorhinal Cortex. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 28-37	0.9	
14	Grid cell firing may arise from interference of theta frequency membrane potential oscillations in single neurons. <i>Hippocampus</i> , <b>2007</b> , 17, 1252-71	3.5	230
13	Neuromodulation by glutamate and acetylcholine can change circuit dynamics by regulating the relative influence of afferent input and excitatory feedback. <i>Molecular Neurobiology</i> , <b>2007</b> , 36, 184-200	6.2	121
12	Temporal frequency of subthreshold oscillations scales with entorhinal grid cell field spacing. <i>Science</i> , <b>2007</b> , 315, 1719-22	33.3	300
11	Difference in time course of modulation of synaptic transmission by group II versus group III metabotropic glutamate receptors in region CA1 of the hippocampus. <i>Hippocampus</i> , <b>2006</b> , 16, 1004-16	3.5	9
10	Muscarinic suppression in stratum radiatum of CA1 shows dependence on presynaptic M1 receptors and is not dependent on effects at GABA(B) receptors. <i>Neurobiology of Learning and Memory</i> , <b>2006</b> , 85, 153-63	3.1	46
9	Cholinergic modulation of cortical function. <i>Journal of Molecular Neuroscience</i> , <b>2006</b> , 30, 133-5	3.3	138
8	Nicotinic modulation of glutamatergic synaptic transmission in region CA3 of the hippocampus. <i>European Journal of Neuroscience</i> , <b>2005</b> , 22, 1349-56	3.5	40
7	Nicotinic modulation of glutamatergic synaptic transmission in region CA3 of the hippocampus. <i>European Journal of Neuroscience</i> , <b>2005</b> , 22, 2679-2679	3.5	
6	A positively tuned voltage indicator reveals electrical correlates of calcium activity in the brain		4
5	Experience dependent contextual codes in the hippocampus		3

4	Flexible analysis of animal behavior via time-resolved manifold embedding	1
3	Dynamic and reversible remapping of network representations in an unchanging environment	1
2	Distinct algorithms for combining landmarks and path integration in medial entorhinal, visual and retrosplenial cortex	2
1	A unified theory for the computational and mechanistic origins of grid cells	5