

# Ila R Fiete

## List of Publications by Year in descending order

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Version: 2024-02-01

37  
papers

3,412  
citations

279798

23  
h-index

414414

32  
g-index

54  
all docs

54  
docs citations

54  
times ranked

2583  
citing authors

#	ARTICLE	IF	CITATIONS
1	Cortical ensembles orchestrate social competition through hypothalamic outputs. <i>Nature</i> , 2022, 603, 667-671.	27.8	64
2	Place-cell capacity and volatility with grid-like inputs. <i>ELife</i> , 2021, 10, .	6.0	8
3	Editorial overview: Theoretical and computational approaches to decipher brain function from molecules to behavior. <i>Current Opinion in Neurobiology</i> , 2021, 70, iii-vii.	4.2	0
4	Ila Fiete. <i>Current Biology</i> , 2021, 31, R1552-R1555.	3.9	0
5	Robust parallel decision-making in neural circuits with nonlinear inhibition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 25505-25516.	7.1	7
6	Efficient Inference in Structured Spaces. <i>Cell</i> , 2020, 183, 1147-1148.	28.9	0
7	The Mind of a Mouse. <i>Cell</i> , 2020, 182, 1372-1376.	28.9	127
8	Systematic errors in connectivity inferred from activity in strongly recurrent networks. <i>Nature Neuroscience</i> , 2020, 23, 1286-1296.	14.8	50
9	Sources of path integration error in young and aging humans. <i>Nature Communications</i> , 2020, 11, 2626.	12.8	35
10	Efficient and flexible representation of higher-dimensional cognitive variables with grid cells. <i>PLoS Computational Biology</i> , 2020, 16, e1007796.	3.2	22
11	The intrinsic attractor manifold and population dynamics of a canonical cognitive circuit across waking and sleep. <i>Nature Neuroscience</i> , 2019, 22, 1512-1520.	14.8	214
12	Grid cell co-activity patterns during sleep reflect spatial overlap of grid fields during active behaviors. <i>Nature Neuroscience</i> , 2019, 22, 609-617.	14.8	67
13	A Map-like Micro-Organization of Grid Cells in the Medial Entorhinal Cortex. <i>Cell</i> , 2018, 175, 736-750.e30.	28.9	84
14	Inferring circuit mechanisms from sparse neural recording and global perturbation in grid cells. <i>ELife</i> , 2018, 7, .	6.0	11
15	Making our way through the world: Towards a functional understanding of the brain's spatial circuits. <i>Current Opinion in Systems Biology</i> , 2017, 3, 186-194.	2.6	8
16	An International Laboratory for Systems and Computational Neuroscience. <i>Neuron</i> , 2017, 96, 1213-1218.	8.1	60
17	Fundamental bound on the persistence and capacity of short-term memory stored as graded persistent activity. <i>ELife</i> , 2017, 6, .	6.0	26
18	Multi-periodic neural coding for adaptive information transfer. <i>Theoretical Computer Science</i> , 2016, 633, 37-53.	0.9	3

#	ARTICLE	IF	CITATIONS
19	Grid Cell Responses in 1D Environments Assessed as Slices through a 2D Lattice. <i>Neuron</i> , 2016, 89, 1086-1099.	8.1	60
20	Computational principles of memory. <i>Nature Neuroscience</i> , 2016, 19, 394-403.	14.8	176
21	Bias in Human Path Integration Is Predicted by Properties of Grid Cells. <i>Current Biology</i> , 2015, 25, 1771-1776.	3.9	42
22	How Does the Brain Solve the Computational Problems of Spatial Navigation?. , 2014, , 373-407.		2
23	A Model of Grid Cell Development through Spatial Exploration and Spike Time-Dependent Plasticity. <i>Neuron</i> , 2014, 83, 481-495.	8.1	81
24	Specific evidence of low-dimensional continuous attractor dynamics in grid cells. <i>Nature Neuroscience</i> , 2013, 16, 1077-1084.	14.8	248
25	Dynamic shift-map coding with side information at the decoder. , 2012, , .		1
26	Fundamental limits on persistent activity in networks of noisy neurons. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 17645-17650.	7.1	102
27	Grid cells generate an analog error-correcting code for singularly precise neural computation. <i>Nature Neuroscience</i> , 2011, 14, 1330-1337.	14.8	165
28	Spike-Time-Dependent Plasticity and Heterosynaptic Competition Organize Networks to Produce Long Scale-Free Sequences of Neural Activity. <i>Neuron</i> , 2010, 65, 563-576.	8.1	253
29	Losing Phase. <i>Neuron</i> , 2010, 66, 331-334.	8.1	5
30	Accurate Path Integration in Continuous Attractor Network Models of Grid Cells. <i>PLoS Computational Biology</i> , 2009, 5, e1000291.	3.2	569
31	Grid cells: The position code, neural network models of activity, and the problem of learning. <i>Hippocampus</i> , 2008, 18, 1283-1300.	1.9	80
32	Testing Odor Response Stereotypy in the <i>Drosophila</i> Mushroom Body. <i>Neuron</i> , 2008, 59, 1009-1023.	8.1	157
33	What Grid Cells Convey about Rat Location. <i>Journal of Neuroscience</i> , 2008, 28, 6858-6871.	3.6	274
34	Model of Birdsong Learning Based on Gradient Estimation by Dynamic Perturbation of Neural Conductances. <i>Journal of Neurophysiology</i> , 2007, 98, 2038-2057.	1.8	151
35	Gradient Learning in Spiking Neural Networks by Dynamic Perturbation of Conductances. <i>Physical Review Letters</i> , 2006, 97, 048104.	7.8	89
36	Do We Understand the Emergent Dynamics of Grid Cell Activity?. <i>Journal of Neuroscience</i> , 2006, 26, 9352-9354.	3.6	46

#	ARTICLE	IF	CITATIONS
37	Temporal Sparseness of the Premotor Drive Is Important for Rapid Learning in a Neural Network Model of Birdsong. <i>Journal of Neurophysiology</i> , 2004, 92, 2274-2282.	1.8	71