David Hansel

List of Publications by Year
in descending order

35 papers	**3,492** citations	257450 **24** h-index	377865 **34** g-index
43 all docs	**43** docs citations	**43** times ranked	**3194** citing authors

#	Article	IF	Citations
1	Mechanisms underlying the response of mouse cortical networks to optogenetic manipulation. ELife, 2020, 9, .	6.0	47
2	Idiosyncratic choice bias naturally emerges from intrinsic stochasticity in neuronal dynamics. Nature Human Behaviour, 2019, 3, 1190-1202.	12.0	12
3	Dynamics and orientation selectivity in a cortical model of rodent V1 with excess bidirectional connections. Scientific Reports, 2019, 9, 3334.	3.3	3
4	Spatiotemporal constraints on optogenetic inactivation in cortical circuits. ELife, 2019, 8, .	6.0	150
5	Strength of Correlations in Strongly Recurrent Neuronal Networks. Physical Review X, 2018, 8, .	8.9	23
6	Emergent Orientation Selectivity from Random Networks in Mouse Visual Cortex. Cell Reports, 2018, 24, 2042-2050.e6.	6.4	37
7	A canonical neural mechanism for behavioral variability. Nature Communications, 2017, 8, 15415.	12.8	38
8	The Role of Striatal Feedforward Inhibition in the Maintenance of Absence Seizures. Journal of Neuroscience, 2016, 36, 9618-9632.	3.6	33
9	A reanalysis of â€œTwo types of asynchronous activity in networks of excitatory and inhibitory spiking neuronsâ€. F1000Research, 2016, 5, 2043.	1.6	15
10	Asynchronous Rate Chaos in Spiking Neuronal Circuits. PLoS Computational Biology, 2015, 11, e1004266.	3.2	76
11	Interference and Shaping in Sensorimotor Adaptations with Rewards. PLoS Computational Biology, 2014, 10, e1003377.	3.2	16
12	Short-Term Plasticity Explains Irregular Persistent Activity in Working Memory Tasks. Journal of Neuroscience, 2013, 33, 133-149.	3.6	106
13	The Mechanism of Orientation Selectivity in Primary Visual Cortex without a Functional Map. Journal of Neuroscience, 2012, 32, 4049-4064.	3.6	118
14	Bistability and Spatiotemporal Irregularity in Neuronal Networks with Nonlinear Synaptic Transmission. Physical Review Letters, 2012, 108, 158101.	7.8	69
15	On the Distribution of Firing Rates in Networks of Cortical Neurons. Journal of Neuroscience, 2011, 31, 16217-16226.	3.6	192
16	Short-Term Facilitation may Stabilize Parametric Working Memory Trace. Frontiers in Computational Neuroscience, 2011, 5, 40.	2.1	94
17	Power-Law Input-Output Transfer Functions Explain the Contrast-Response and Tuning Properties of Neurons in Visual Cortex. PLoS Computational Biology, 2011, 7, e1001078.	3.2	30
18	Synchronous Chaos and Broad Band Gamma Rhythm in a Minimal Multi-Layer Model of Primary Visual Cortex. PLoS Computational Biology, 2011, 7, e1002176.	3.2	53

#	Article	IF	Citations
19	Very long transients, irregular firing, and chaotic dynamics in networks of randomly connected inhibitory integrate-and-fire neurons. Physical Review E, 2009, 79, 031909.	2.1	66
20	Mechanisms of Firing Patterns in Fast-Spiking Cortical Interneurons. PLoS Computational Biology, 2007, 3, e156.	3.2	108
21	Temporal Decorrelation of Collective Oscillations in Neural Networks with Local Inhibition and Long-Range Excitation. Physical Review Letters, 2007, 99, 238106.	7.8	67
22	Late emergence of synchronized oscillatory activity in the pallidum during progressive parkinsonism. European Journal of Neuroscience, 2007, 26, 1701-1713.	2.6	139
23	Rate Models with Delays and the Dynamics of Large Networks of Spiking Neurons. Progress of Theoretical Physics Supplement, 2006, 161, 68-85.	0.1	22
24	Competition between Feedback Loops Underlies Normal and Pathological Dynamics in the Basal Ganglia. Journal of Neuroscience, 2006, 26, 3567-3583.	3.6	289
25	How Noise Affects the Synchronization Properties of Recurrent Networks of Inhibitory Neurons. Neural Computation, 2006, 18, 1066-1110.	2.2	75
26	Teaching assistants. Les Houches Summer School Proceedings, 2005, 80, x.	0.2	0
27	Subthalamic high frequency stimulation resets subthalamic firing and reduces abnormal oscillations. Brain, 2005, 128, 2372-2382.	7.6	327
28	The Combined Effects of Inhibitory and Electrical Synapses in Synchrony. Neural Computation, 2005, 17, 633-670.	2.2	98
29	Role of Delays in Shaping Spatiotemporal Dynamics of Neuronal Activity in Large Networks. Physical Review Letters, 2005, 94, 238103.	7.8	261
30	Mechanisms of Firing Patterns in Fast-Spiking Cortical Interneurons. PLoS Computational Biology, 2005, preprint, e156.	3.2	1
31	Rate Models for Conductance-Based Cortical Neuronal Networks. Neural Computation, 2003, 15, 1809-1841.	2.2	190
32	Electrical Synapses and Synchrony: The Role of Intrinsic Currents. Journal of Neuroscience, 2003, 23, 6280-6294.	3.6	152
33	How Spike Generation Mechanisms Determine the Neuronal Response to Fluctuating Inputs. Journal of Neuroscience, 2003, 23, 11628-11640.	3.6	485
34	Traveling waves and the processing of weakly tuned inputs in a cortical network module. Journal of Computational Neuroscience, 1997, 4, 57-77.	1.0	84
35	Computing with a difference neuron. Network: Computation in Neural Systems, 1992, 3, 187-204.	3.6	2