Stephen G Lisberger

List of Publications by Year
in descending order

73 papers	5,926 citations	94381 37 h-index	85498 71 g-index
83 all docs	83 docs citations	83 times ranked	3682 citing authors

#	Article	IF	Citations
1	Stimulus onset quenches neural variability: a widespread cortical phenomenon. Nature Neuroscience, 2010, 13, 369-378.	7.1	907
2	Visual Motion Analysis for Pursuit Eye Movements in Area MT of Macaque Monkeys. Journal of Neuroscience, 1999, 19, 2224-2246.	1.7	303
3	A sensory source for motor variation. Nature, 2005, 437, 412-416.	13.7	267
4	Links from complex spikes to local plasticity and motor learning in the cerebellum of awake-behaving monkeys. Nature Neuroscience, 2008, 11, 1185-1192.	7.1	250
5	The Neural Representation of Speed in Macaque Area MT/V5. Journal of Neuroscience, 2003, 23, 5650-5661.	1.7	246
6	Neural Learning Rules for the Vestibulo-Ocular Reflex. Journal of Neuroscience, 1998, 18, 9112-9129.	1.7	191
7	Visual Guidance of Smooth-Pursuit Eye Movements: Sensation, Action, and What Happens in Between. Neuron, 2010, 66, 477-491.	3.8	189
8	Purkinje-cell plasticity and cerebellar motor learning are graded by complex-spike duration. Nature, 2014, 510, 529-532.	13.7	189
9	Regulation of the gain of visually guided smooth-pursuit eye movements by frontal cortex. Nature, 2001, 409, 191-194.	13.7	157
10	Vector Averaging for Smooth Pursuit Eye Movements Initiated by Two Moving Targets in Monkeys. Journal of Neuroscience, 1997, 17, 7490-7502.	1.7	146
11	The Neural Basis for Combinatorial Coding in a Cortical Population Response. Journal of Neuroscience, 2008, 28, 13522-13531.	1.7	132
12	Time Course of Information about Motion Direction in Visual Area MT of Macaque Monkeys. Journal of Neuroscience, 2004, 24, 3210-3222.	1.7	130
13	A model of visually-guided smooth pursuit eye movements based on behavioral observations. Journal of Computational Neuroscience, 1994, 1, 265-283.	0.6	122
14	Initial tracking conditions modulate the gain of visuo-motor transmission for smooth pursuit eye movements in monkeys. Visual Neuroscience, 1994, 11, 411-424.	0.5	120
15	Estimating Target Speed from the Population Response in Visual Area MT. Journal of Neuroscience, 2004, 24, 1907-1916.	1.7	119
16	Noise Correlations in Cortical Area MT and Their Potential Impact on Trial-by-Trial Variation in the Direction and Speed of Smooth-Pursuit Eye Movements. Journal of Neurophysiology, 2009, 101, 3012-3030.	0.9	115
17	Diversity and dynamism in the cerebellum. Nature Neuroscience, 2021, 24, 160-167.	7.1	114
18	Variation, Signal, and Noise in Cerebellar Sensory-Motor Processing for Smooth-Pursuit Eye Movements. Journal of Neuroscience, 2007, 27, 6832-6842.	1.7	106

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19	Neuronal Responses in Visual Areas MT and MST During Smooth Pursuit Target Selection. Journal of Neurophysiology, 1997, 78, 1433-1446.	0.9	84
20	Role of Arcuate Frontal Cortex of Monkeys in Smooth Pursuit Eye Movements. I. Basic Response Properties to Retinal Image Motion and Position. Journal of Neurophysiology, 2002, 87, 2684-2699.	0.9	80
21	Normal Performance and Expression of Learning in the Vestibulo-Ocular Reflex (VOR) at High Frequencies. Journal of Neurophysiology, 2005, 93, 2028-2038.	0.9	79
22	The Representation of Time for Motor Learning. Neuron, 2005, 45, 157-167.	3.8	79
23	Evidence for Object Permanence in the Smooth-Pursuit Eye Movements of Monkeys. Journal of Neurophysiology, 2003, 90, 2205-2218.	0.9	78
24	Shifts in the Population Response in the Middle Temporal Visual Area Parallel Perceptual and Motor Illusions Produced by Apparent Motion. Journal of Neuroscience, 2001, 21, 9387-9402.	1.7	77
25	Enhancement of Multiple Components of Pursuit Eye Movement by Microstimulation in the Arcuate Frontal Pursuit Area in Monkeys. Journal of Neurophysiology, 2002, 87, 802-818.	0.9	75
26	Neural implementation of Bayesian inference in a sensorimotor behavior. Nature Neuroscience, 2018, 21, 1442-1451.	7.1	73
27	Linked Target Selection for Saccadic and Smooth Pursuit Eye Movements. Journal of Neuroscience, 2001, 21, 2075-2084.	1.7	70
28	Time Course of Precision in Smooth-Pursuit Eye Movements of Monkeys. Journal of Neuroscience, 2007, 27, 2987-2998.	1.7	69
29	Visual Guidance of Smooth Pursuit Eye Movements. Annual Review of Vision Science, 2015, 1, 447-468.	2.3	68
30	Behavioral Analysis of Signals that Guide Learned Changes in the Amplitude and Dynamics of the Vestibulo-Ocular Reflex. Journal of Neuroscience, 1996, 16, 7791-7802.	1.7	67
31	Changes in the Responses of Purkinje Cells in the Floccular Complex of Monkeys After Motor Learning in Smooth Pursuit Eye Movements. Journal of Neurophysiology, 2000, 84, 2945-2960.	0.9	64
32	Encoding and Decoding of Learned Smooth-Pursuit Eye Movements in the Floccular Complex of the Monkey Cerebellum. Journal of Neurophysiology, 2009, 102, 2039-2054.	0.9	62
33	Cortical Mechanisms of Smooth Eye Movements Revealed by Dynamic Covariations of Neural and Behavioral Responses. Neuron, 2008, 58, 248-260.	3.8	59
34	Role of Plasticity at Different Sites across the Time Course of Cerebellar Motor Learning. Journal of Neuroscience, 2014, 34, 7077-7090.	1.7	59
35	Physiologic basis for motor learning in the vestibulo-ocular reflex. Otolaryngology - Head and Neck Surgery, 1998, 119, 43-48.	1.1	49
36	Experimental and Computational Analysis of Monkey Smooth Pursuit Eye Movements. Journal of Neurophysiology, 2001, 86, 741-759.	0.9	49

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37	Sensory Population Decoding for Visually Guided Movements. Neuron, 2013, 79, 167-179.	3.8	47
38	Serial linkage of target selection for orienting and tracking eye movements. Nature Neuroscience, 2002, 5, 892-899.	7.1	46
39	The Interaction of Bayesian Priors and Sensory Data and Its Neural Circuit Implementation in Visually Guided Movement. Journal of Neuroscience, 2012, 32, 17632-17645.	1.7	45
40	Signal, Noise, and Variation in Neural and Sensory-Motor Latency. Neuron, 2016, 90, 165-176.	3.8	43
41	Learning on Multiple Timescales in Smooth Pursuit Eye Movements. Journal of Neurophysiology, 2010, 104, 2850-2862.	0.9	42
42	Reconstruction of Target Speed for the Guidance of Pursuit Eye Movements. Journal of Neuroscience, 2001, 21, 3196-3206.	1.7	40
43	Apparent Motion Produces Multiple Deficits in Visually Guided Smooth Pursuit Eye Movements of Monkeys. Journal of Neurophysiology, 2000, 84, 216-235.	0.9	38
44	Control of the strength of visual-motor transmission as the mechanism of rapid adaptation of priors for Bayesian inference in smooth pursuit eye movements. Journal of Neurophysiology, 2017, 118, 1173-1189.	0.9	37
45	Directional Cuing of Target Choice in Human Smooth Pursuit Eye Movements. Journal of Neuroscience, 2006, 26, 12479-12486.	1.7	36
46	Diversity of Neural Responses in the Brainstem during Smooth Pursuit Eye Movements Constrains the Circuit Mechanisms of Neural Integration. Journal of Neuroscience, 2013, 33, 6633-6647.	1.7	36
47	Interaction of plasticity and circuit organization during the acquisition of cerebellum-dependent motor learning. ELife, 2013, 2, e01574.	2.8	32
48	How and why neural and motor variation are related. Current Opinion in Neurobiology, 2015, 33, 110-116.	2.0	31
49	Role of Arcuate Frontal Cortex of Monkeys in Smooth Pursuit Eye Movements. II. Relation to Vector Averaging Pursuit. Journal of Neurophysiology, 2002, 87, 2700-2714.	0.9	30
50	Gamma Synchrony Predicts Neuronâ€"Neuron Correlations and Correlations with Motor Behavior in Extrastriate Visual Area MT. Journal of Neuroscience, 2013, 33, 19677-19688.	1.7	29
51	Reward Action in the Initiation of Smooth Pursuit Eye Movements. Journal of Neuroscience, 2012, 32, 2856-2867.	1.7	28
52	Discharge Properties of MST Neurons That Project to the Frontal Pursuit Area in Macaque Monkeys. Journal of Neurophysiology, 2005, 94, 1084-1090.	0.9	27
53	A framework for using signal, noise, and variation to determine whether the brain controls movement synergies or single muscles. Journal of Neurophysiology, 2014, 111, 733-745.	0.9	23
54	The Rules of Cerebellar Learning: Around the Ito Hypothesis. Neuroscience, 2021, 462, 175-190.	1.1	23

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55	A Population Decoding Framework for Motion Aftereffects on Smooth Pursuit Eye Movements. Journal of Neuroscience, 2004, 24, 9035-9048.	1.7	21
56	Eye movements and brainstem neuronal responses evoked by cerebellar and vestibular stimulation in chicks. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1992, 171, 629-638.	0.7	20
57	Principles of operation of a cerebellar learning circuit. ELife, 2020, 9, .	2.8	19
58	Saccades Exert Spatial Control of Motion Processing for Smooth Pursuit Eye Movements. Journal of Neuroscience, 2006, 26, 7607-7618.	1.7	18
59	The Neural Code for Motor Control in the Cerebellum and Oculomotor Brainstem. ENeuro, 2014, 1, ENEURO.0004-14.2014.	0.9	17
60	Modulation of Complex-Spike Duration and Probability during Cerebellar Motor Learning in Visually Guided Smooth-Pursuit Eye Movements of Monkeys. ENeuro, 2017, 4, ENEURO.0115-17.2017.	0.9	15
61	Mechanisms that allow cortical preparatory activity without inappropriate movement. ELife, 2020, 9, .	2.8	15
62	Learned Timing of Motor Behavior in the Smooth Eye Movement Region of the Frontal Eye Fields. Neuron, 2011, 69, 159-169.	3.8	14
63	Control of the Gain of Visual-Motor Transmission Occurs in Visual Coordinates for Smooth Pursuit Eye Movements. Journal of Neuroscience, 2013, 33, 9420-9430.	1.7	13
64	A Neurally Efficient Implementation of Sensory Population Decoding. Journal of Neuroscience, 2011, 31, 4868-4877.	1.7	12
65	Multiple components in direction learning in smooth pursuit eye movements of monkeys. Journal of Neurophysiology, 2018, 120, 2020-2035.	0.9	12
66	The Neural Basis for Response Latency in a Sensory-Motor Behavior. Cerebral Cortex, 2020, 30, 3055-3073.	1.6	12
67	Different mechanisms for modulation of the initiation and steady-state of smooth pursuit eye movements. Journal of Neurophysiology, 2020, 123, 1265-1276.	0.9	12
68	Sensory versus motor loci for integration of multiple motion signals in smooth pursuit eye movements and human motion perception. Journal of Neurophysiology, 2011, 106, 741-753.	0.9	11
69	Responses of Purkinje cells in the oculomotor vermis of monkeys during smooth pursuit eye movements and saccades: comparison with floccular complex. Journal of Neurophysiology, 2017, 118, 986-1001.	0.9	9
70	Evaluation and resolution of many challenges of neural spike sorting: a new sorter. Journal of Neurophysiology, 2021, 126, 2065-2090.	0.9	9
71	Interactions between target location and reward size modulate the rate of microsaccades in monkeys. Journal of Neurophysiology, 2015, 114, 2616-2624.	0.9	8
72	Neural structure of a sensory decoder for motor control. Nature Communications, 2022, 13, 1829.	5.8	5

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73	Toward a Biomimetic Neural Circuit Model of Sensory-Motor Processing. Neural Computation, 0, , 1-29.	1.3	0