John H R Maunsell

List of Publications by Citations

107 papers	22,394 citations	64 h-index	127 g-index
127 ext. papers	24,681 ext. citations	9.2 avg, IF	7.22 L-index

#	Paper	IF	Citations
107	How parallel are the primate visual pathways?. *Annual Review of Neuroscience*, **1993**, 16, 369-402	17	1334
106	The connections of the middle temporal visual area (MT) and their relationship to a cortical hierarchy in the macaque monkey. *Journal of Neuroscience*, **1983**, 3, 2563-86	6.6	1217
105	Functional properties of neurons in middle temporal visual area of the macaque monkey. I. Selectivity for stimulus direction, speed, and orientation. *Journal of Neurophysiology*, **1983**, 49, 1127-47	3.2	1149
104	Visual processing in monkey extrastriate cortex. *Annual Review of Neuroscience*, **1987**, 10, 363-401	17	999
103	Attentional modulation of visual motion processing in cortical areas MT and MST. *Nature*, **1996**, 382, 539-41	50.4	911
102	Effects of attention on orientation-tuning functions of single neurons in macaque cortical area V4. *Journal of Neuroscience*, **1999**, 19, 431-41	6.6	884
101	The visual field representation in striate cortex of the macaque monkey: asymmetries, anisotropies, and individual variability. *Vision Research*, **1984**, 24, 429-48	2.1	766
100	Attention improves performance primarily by reducing interneuronal correlations. *Nature Neuroscience*, **2009**, 12, 1594-600	25.5	726
99	Hierarchical organization and functional streams in the visual cortex. *Trends in Neurosciences*, **1983**, 6, 370-375	13.3	698
98	Different origins of gamma rhythm and high-gamma activity in macaque visual cortex. *PLoS Biology*, **2011**, 9, e1000610	9.7	615
97	The middle temporal visual area in the macaque: myeloarchitecture, connections, functional properties and topographic organization. *Journal of Comparative Neurology*, **1981**, 199, 293-326	3.4	594
96	Feature-based attention in visual cortex. *Trends in Neurosciences*, **2006**, 29, 317-22	13.3	593
95	Functional properties of neurons in middle temporal visual area of the macaque monkey. II. Binocular interactions and sensitivity to binocular disparity. *Journal of Neurophysiology*, **1983**, 49, 1148-67	3.2	547
94	Coding of image contrast in central visual pathways of the macaque monkey. *Vision Research*, **1990**, 30, 1-10	2.1	536
93	The effect of frontal eye field and superior colliculus lesions on saccadic latencies in the rhesus monkey. *Journal of Neurophysiology*, **1987**, 57, 1033-49	3.2	507
92	Visual response latencies in striate cortex of the macaque monkey. *Journal of Neurophysiology*, **1992**, 68, 1332-44	3.2	474
91	State dependent activity in monkey visual cortex. II. Retinal and extraretinal factors in V4. *Experimental Brain Research*, **1988**, 69, 245-59	2.3	464

90	Magnocellular and parvocellular contributions to responses in the middle temporal visual area (MT) of the macaque monkey. *Journal of Neuroscience*, **1990**, 10, 3323-34	6.6	388
89	Shape selectivity in primate lateral intraparietal cortex. *Nature*, **1998**, 395, 500-3	50.4	339
88	Neuronal representations of cognitive state: reward or attention?. *Trends in Cognitive Sciences*, **2004**, 8, 261-5	14	338
87	Differences in gamma frequencies across visual cortex restrict their possible use in computation. *Neuron*, **2010**, 67, 885-96	13.9	325
86	The effect of perceptual learning on neuronal responses in monkey visual area V4. *Journal of Neuroscience*, **2004**, 24, 1617-26	6.6	309
85	Two-dimensional maps of the cerebral cortex. *Journal of Comparative Neurology*, **1980**, 191, 255-81	3.4	302
84	Topographic organization of the middle temporal visual area in the macaque monkey: representational biases and the relationship to callosal connections and myeloarchitectonic boundaries. *Journal of Comparative Neurology*, **1987**, 266, 535-55	3.4	284
83	Attention to both space and feature modulates neuronal responses in macaque area V4. *Journal of Neurophysiology*, **2000**, 83, 1751-5	3.2	275
82	Effects of attention on the processing of motion in macaque middle temporal and medial superior temporal visual cortical areas. *Journal of Neuroscience*, **1999**, 19, 7591-602	6.6	265
81	Functions of the ON and OFF channels of the visual system. *Nature*, **1986**, 322, 824-5	50.4	260
80	The projections from striate cortex (V1) to areas V2 and V3 in the macaque monkey: asymmetries, areal boundaries, and patchy connections. *Journal of Comparative Neurology*, **1986**, 244, 451-80	3.4	250
79	Effects of spatial attention on contrast response functions in macaque area V4. *Journal of Neurophysiology*, **2006**, 96, 40-54	3.2	245
78	Physiological correlates of perceptual learning in monkey V1 and V2. *Journal of Neurophysiology*, **2002**, 87, 1867-88	3.2	239
77	Neuronal correlates of inferred motion in primate posterior parietal cortex. *Nature*, **1995**, 373, 518-21	50.4	236
76	Visual response latencies of magnocellular and parvocellular LGN neurons in macaque monkeys. *Visual Neuroscience*, **1999**, 16, 1-14	1.7	231
75	Dynamics of neuronal responses in macaque MT and VIP during motion detection. *Nature Neuroscience*, **2002**, 5, 985-94	25.5	223
74	Effects of attention on the reliability of individual neurons in monkey visual cortex. *Neuron*, **1999**, 23, 765-73	13.9	219
73	Attentional modulation in visual cortex depends on task timing. *Nature*, **2002**, 419, 616-20	50.4	212

72	Macaque vision after magnocellular lateral geniculate lesions. *Visual Neuroscience*, **1990**, 5, 347-52	1.7	212
71	Extraretinal representations in area V4 in the macaque monkey. *Visual Neuroscience*, **1991**, 7, 561-73	1.7	205
70	A normalization model of attentional modulation of single unit responses. *PLoS ONE*, **2009**, 4, e4651	3.7	167
69	On the relationship between synaptic input and spike output jitter in individual neurons. *Proceedings of the National Academy of Sciences of the United States of America*, **1997**, 94, 735-40	11.5	155
68	Using neuronal populations to study the mechanisms underlying spatial and feature attention. *Neuron*, **2011**, 70, 1192-204	13.9	154
67	Anterior inferotemporal neurons of monkeys engaged in object recognition can be highly sensitive to object retinal position. *Journal of Neurophysiology*, **2003**, 89, 3264-78	3.2	154
66	Attentional modulation of behavioral performance and neuronal responses in middle temporal and ventral intraparietal areas of macaque monkey. *Journal of Neuroscience*, **2002**, 22, 1994-2004	6.6	150
65	Mixed parvocellular and magnocellular geniculate signals in visual area V4. *Nature*, **1992**, 358, 756-61	50.4	147
64	The role of attention in visual processing. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2002**, 357, 1063-72	5.8	145
63	Do gamma oscillations play a role in cerebral cortex?. *Trends in Cognitive Sciences*, **2015**, 19, 78-85	14	141
62	Sensory modality specificity of neural activity related to memory in visual cortex. *Journal of Neurophysiology*, **1997**, 78, 1263-75	3.2	141
61	A neuronal population measure of attention predicts behavioral performance on individual trials. *Journal of Neuroscience*, **2010**, 30, 15241-53	6.6	131
60	Neuronal Mechanisms of Visual Attention. *Annual Review of Vision Science*, **2015**, 1, 373-391	8.2	127
59	Mouse primary visual cortex is used to detect both orientation and contrast changes. *Journal of Neuroscience*, **2013**, 33, 19416-22	6.6	126
58	Receptive fields in human visual cortex mapped with surface electrodes. *Cerebral Cortex*, **2007**, 17, 2293-302	5.1	120
57	Spatial attention and the latency of neuronal responses in macaque area V4. *Journal of Neuroscience*, **2007**, 27, 9632-7	6.6	98
56	Insights into cortical mechanisms of behavior from microstimulation experiments. *Progress in Neurobiology*, **2013**, 103, 115-30	10.9	87
55	Using neuronal latency to determine sensory-motor processing pathways in reaction time tasks. *Journal of Neurophysiology*, **2005**, 93, 2974-86	3.2	84

54	Psychophysical measurement of contrast sensitivity in the behaving mouse. *Journal of Neurophysiology*, **2012**, 107, 758-65	3.2	83
53	No binocular rivalry in the LGN of alert macaque monkeys. *Vision Research*, **1996**, 36, 1225-34	2.1	81
52	Behavioral detection of electrical microstimulation in different cortical visual areas. *Current Biology*, **2007**, 17, 862-7	6.3	79
51	Cover Videos. *Journal of Neuroscience*, **2013**, 33, 12909-12909	6.6	78
50	Perceiving electrical stimulation of identified human visual areas. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 5389-93	11.5	77
49	Ventral posterior visual area of the macaque: visual topography and areal boundaries. *Journal of Comparative Neurology*, **1986**, 252, 139-53	3.4	77
48	Functional visual streams. *Current Opinion in Neurobiology*, **1992**, 2, 506-10	7.6	75
47	Network rhythms influence the relationship between spike-triggered local field potential and functional connectivity. *Journal of Neuroscience*, **2011**, 31, 12674-82	6.6	70
46	Effects of task difficulty and target likelihood in area V4 of macaque monkeys. *Journal of Neurophysiology*, **2006**, 96, 2377-87	3.2	69
45	Specialized representations in visual cortex: a role for binding?. *Neuron*, **1999**, 24, 79-85, 111-25	13.9	66
44	Neuronal Modulations in Visual Cortex Are Associated with Only One of Multiple Components of Attention. *Neuron*, **2015**, 86, 1182-8	13.9	64
43	Tuned normalization explains the size of attention modulations. *Neuron*, **2012**, 73, 803-13	13.9	62
42	Attentional modulation of motion integration of individual neurons in the middle temporal visual area. *Journal of Neuroscience*, **2004**, 24, 7964-77	6.6	61
41	Form representation in monkey inferotemporal cortex is virtually unaltered by free viewing. *Nature Neuroscience*, **2000**, 3, 814-21	25.5	61
40	Spatial summation can explain the attentional modulation of neuronal responses to multiple stimuli in area V4. *Journal of Neuroscience*, **2008**, 28, 5115-26	6.6	59
39	Nine criteria for a measure of scientific output. *Frontiers in Computational Neuroscience*, **2011**, 5, 48	3.5	54
38	Cortical neural populations can guide behavior by integrating inputs linearly, independent of synchrony. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E178-87	11.5	53
37	Deficits in speed discrimination following lesions of the lateral suprasylvian cortex in the cat. *Visual Neuroscience*, **1989**, 3, 365-75	1.7	51

36	Attentional modulation of MT neurons with single or multiple stimuli in their receptive fields. *Journal of Neuroscience*, **2010**, 30, 3058-66	6.6	50
35	Spatial attention does not strongly modulate neuronal responses in early human visual cortex. *Journal of Neuroscience*, **2007**, 27, 13205-9	6.6	50
34	Microstimulation reveals limits in detecting different signals from a local cortical region. *Current Biology*, **2010**, 20, 824-8	6.3	43
33	Strength of gamma rhythm depends on normalization. *PLoS Biology*, **2013**, 11, e1001477	9.7	42
32	Attention-related changes in correlated neuronal activity arise from normalization mechanisms. *Nature Neuroscience*, **2017**, 20, 969-977	25.5	39
31	When attention wanders: how uncontrolled fluctuations in attention affect performance. *Journal of Neuroscience*, **2011**, 31, 15802-6	6.6	39
30	Potential confounds in estimating trial-to-trial correlations between neuronal response and behavior using choice probabilities. *Journal of Neurophysiology*, **2012**, 108, 3403-15	3.2	39
29	The effect of attention on neuronal responses to high and low contrast stimuli. *Journal of Neurophysiology*, **2010**, 104, 960-71	3.2	37
28	Physiological Evidence for Two Visual Subsystems **1987**, 59-87		36
27	Effects of stimulus direction on the correlation between behavior and single units in area MT during a motion detection task. *Journal of Neuroscience*, **2011**, 31, 8230-8	6.6	31
26	Attentional Changes in Either Criterion or Sensitivity Are Associated with Robust Modulations in Lateral Prefrontal Cortex. *Neuron*, **2018**, 97, 1382-1393.e7	13.9	29
25	Electrical microstimulation thresholds for behavioral detection and saccades in monkey frontal eye fields. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 7315-20	11.5	28
24	Graded Neuronal Modulations Related to Visual Spatial Attention. *Journal of Neuroscience*, **2016**, 36, 5353-61	6.6	24
23	Spatially tuned normalization explains attention modulation variance within neurons. *Journal of Neurophysiology*, **2017**, 118, 1903-1913	3.2	22
22	Magnocellular or parvocellular lesions in the lateral geniculate nucleus of monkeys cause minor deficits of smooth pursuit eye movements. *Vision Research*, **1994**, 34, 223-39	2.1	19
21	Neuronal Effects of Spatial and Feature Attention Differ Due to Normalization. *Journal of Neuroscience*, **2019**, 39, 5493-5505	6.6	18
20	Different Inhibitory Interneuron Cell Classes Make Distinct Contributions to Visual Contrast Perception. *ENeuro*, **2019**, 6,	3.9	17
19	Attention operates uniformly throughout the classical receptive field and the surround. *ELife*, **2016**, 5,	8.9	16

18	Effects of motor unit size on innervation patterns in neonatal mammals. *Experimental Neurology*, **1980**, 70, 516-24	5.7	11
17	Attention can be subdivided into neurobiological components corresponding to distinct behavioral effects. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**,	11.5	11
16	A Refined Neuronal Population Measure of Visual Attention. *PLoS ONE*, **2015**, 10, e0136570	3.7	10
15	Computer-controlled electrical stimulation for quantitative mapping of human cortical function. *Journal of Neurosurgery*, **2009**, 110, 1300-3	3.2	9
14	A strong constraint to the joint processing of pairs of cortical signals. *Journal of Neuroscience*, **2012**, 32, 15922-33	6.6	8
13	Motion processing in macaque V4. *Nature Neuroscience*, **2005**, 8, 1125; author reply 1125	25.5	7
12	Neuronal Mechanisms of Spatial Attention in Visual Cerebral Cortex **2014**,		5
11	Electrical Microstimulation of Visual Cerebral Cortex Elevates Psychophysical Detection Thresholds. *ENeuro*, **2018**, 5,	3.9	5
10	Local cortical function after uncomplicated subdural electrode implantation. Laboratory investigation. *Journal of Neurosurgery*, **2008**, 108, 139-44	3.2	4
9	Representation of three-dimensional visual space in the cerebral cortex. *Canadian Journal of Physiology and Pharmacology*, **1988**, 66, 478-87	2.4	4
8	New Journal Sections. *Journal of Neuroscience*, **2013**, 33, 1-1	6.6	3
7	The Correlation of Neuronal Signals with Behavior at Different Levels of Visual Cortex and Their Relative Reliability for Behavioral Decisions. *Journal of Neuroscience*, **2020**, 40, 3751-3767	6.6	3
6	Flexible center-surround attentional gain fields in V4 neurons. *Journal of Vision*, **2004**, 4, 8-8	0.4	2
5	The neuroscience peer review consortium. *Behavioral and Brain Functions*, **2009**, 5, 4	4.1	1
4	Single trial dynamics of attentional intensity in visual area V4		1
3	Mice Preferentially Use Increases in Cerebral Cortex Spiking to Detect Changes in Visual Stimuli. *Journal of Neuroscience*, **2020**, 40, 7902-7920	6.6	1
2	Single trial neuronal activity dynamics of attentional intensity in monkey visual area V4. *Nature Communications*, **2021**, 12, 2003	17.4	1
1	The Neuroscience Peer Review Consortium. *Learned Publishing*, **2010**, 23, 15-16	1.8	