Robert Desimone

List of Publications by Year
in descending order

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107 papers	38,536 citations	13827 67 h-index	31759 101 g-index
112 all docs	112 docs citations	112 times ranked	19124 citing authors

#	Article	IF	Citations
1	Neural Mechanisms of Selective Visual Attention. Annual Review of Neuroscience, 1995, 18, 193-222.	5.0	7,228
2	Modulation of Oscillatory Neuronal Synchronization by Selective Visual Attention. Science, 2001, 291, 1560-1563.	6.0	2,496
3	Increased Activity in Human Visual Cortex during Directed Attention in the Absence of Visual Stimulation. Neuron, 1999, 22, 751-761.	3.8	1,508
4	Neural Mechanisms of Spatial Selective Attention in Areas V1, V2, and V4 of Macaque Visual Cortex. Journal of Neurophysiology, 1997, 77, 24-42.	0.9	1,507
5	Neural Mechanisms of Visual Working Memory in Prefrontal Cortex of the Macaque. Journal of Neuroscience, 1996, 16, 5154-5167.	1.7	1,363
6	A neural basis for visual search in inferior temporal cortex. Nature, 1993, 363, 345-347.	13.7	1,257
7	Modulation of Neuronal Interactions Through Neuronal Synchronization. Science, 2007, 316, 1609-1612.	6.0	1,197
8	Competitive Mechanisms Subserve Attention in Macaque Areas V2 and V4. Journal of Neuroscience, 1999, 19, 1736-1753.	1.7	1,177
9	High-Frequency, Long-Range Coupling Between Prefrontal and Visual Cortex During Attention. Science, 2009, 324, 1207-1210.	6.0	1,075
10	Attention Increases Sensitivity of V4 Neurons. Neuron, 2000, 26, 703-714.	3.8	922
11	Cortical connections of visual area MT in the macaque. Journal of Comparative Neurology, 1986, 248, 190-222.	0.9	885
12	Mechanisms of Directed Attention in the Human Extrastriate Cortex as Revealed by Functional MRI. , 1998, 282, 108-111.		821
13	Gamma-band synchronization in visual cortex predicts speed of change detection. Nature, 2006, 439, 733-736.	13.7	690
14	Responses of Neurons in Inferior Temporal Cortex During Memory-Guided Visual Search. Journal of Neurophysiology, 1998, 80, 2918-2940.	0.9	630
15	Pathways for motion analysis: Cortical connections of the medial superior temporal and fundus of the superior temporal visual areas in the macaque. Journal of Comparative Neurology, 1990, 296, 462-495.	0.9	627
16	Parallel and Serial Neural Mechanisms for Visual Search in Macaque Area V4. Science, 2005, 308, 529-534.	6.0	609
17	Visual attention mediated by biased competition in extrastriate visual cortex. Philosophical Transactions of the Royal Society B: Biological Sciences, 1998, 353, 1245-1255.	1.8	587
18	Multiple visual areas in the caudal superior temporal sulcus of the macaque. Journal of Comparative Neurology, 1986, 248, 164-189.	0.9	562

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19	Laminar differences in gamma and alpha coherence in the ventral stream. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11262-11267.	3.3	547
20	Visual areas in the temporal cortex of the macaque. Brain Research, 1979, 178, 363-380.	1.1	538
21	Contour, color and shape analysis beyond the striate cortex. Vision Research, 1985, 25, 441-452.	0.7	538
22	Protein-retention expansion microscopy of cells and tissues labeled using standard fluorescent proteins and antibodies. Nature Biotechnology, 2016, 34, 987-992.	9.4	510
23	Face-Selective Cells in the Temporal Cortex of Monkeys. Journal of Cognitive Neuroscience, 1991, 3, 1-8.	1.1	504
24	Millisecond-Timescale Optical Control of Neural Dynamics in the Nonhuman Primate Brain. Neuron, 2009, 62, 191-198.	3.8	460
25	Neural Mechanisms of Object-Based Attention. Science, 2014, 344, 424-427.	6.0	445
26	Visual topography of area TEO in the macaque. Journal of Comparative Neurology, 1991, 306, 554-575.	0.9	434
27	A High-Light Sensitivity Optical Neural Silencer: Development and Application to Optogenetic Control of Non-Human Primate Cortex. Frontiers in Systems Neuroscience, 2011, 5, 18.	1.2	421
28	Interacting Roles of Attention and Visual Salience in V4. Neuron, 2003, 37, 853-863.	3.8	379
29	The Effects of Visual Stimulation and Selective Visual Attention on Rhythmic Neuronal Synchronization in Macaque Area V4. Journal of Neuroscience, 2008, 28, 4823-4835.	1.7	379
30	Object and Place Memory in the Macaque Entorhinal Cortex. Journal of Neurophysiology, 1997, 78, 1062-1081.	0.9	346
31	The Role of Neural Mechanisms of Attention in Solving the Binding Problem. Neuron, 1999, 24, 19-29.	3.8	325
32	Organization of visual cortical inputs to the striatum and subsequent outputs to the pallido-nigral complex in the monkey. Journal of Comparative Neurology, 1990, 298, 129-156.	0.9	304
33	Responses of cells in monkey visual cortex during perceptual filling-in of an artificial scotoma. Nature, 1995, 377, 731-734.	13.7	290
34	Cortical Connections of Area V4 in the Macaque. Cerebral Cortex, 2008, 18, 477-499.	1.6	274
35	The prefrontal cortex and the executive control of attention. Experimental Brain Research, 2009, 192, 489-497.	0.7	269
36	A Source for Feature-Based Attention in the Prefrontal Cortex. Neuron, 2015, 88, 832-844.	3.8	258

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37	Pulvinar-Cortex Interactions in Vision and Attention. Neuron, 2016, 89, 209-220.	3.8	257
38	Modulation of Sensory Suppression: Implications for Receptive Field Sizes in the Human Visual Cortex. Journal of Neurophysiology, 2001, 86, 1398-1411.	0.9	252
39	A backward progression of attentional effects in the ventral stream. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 361-365.	3.3	252
40	Subcortical projections of area MT in the macaque. Journal of Comparative Neurology, 1984, 223, 368-386.	0.9	242
41	Cell-Type-Specific Synchronization of Neural Activity in FEF with V4 during Attention. Neuron, 2012, 73, 581-594.	3.8	217
42	Responses of Macaque Perirhinal Neurons during and after Visual Stimulus Association Learning. Journal of Neuroscience, 1999, 19, 10404-10416.	1.7	209
43	Inferior Temporal Mechanisms for Invariant Object Recognition. Cerebral Cortex, 1994, 4, 523-531.	1.6	204
44	A Microsaccadic Rhythm Modulates Gamma-Band Synchronization and Behavior. Journal of Neuroscience, 2009, 29, 9471-9480.	1.7	202
45	Feature-Based Attention in the Frontal Eye Field and Area V4 during Visual Search. Neuron, 2011, 70, 1205-1217.	3.8	190
46	Comparison of subcortical connections of inferior temporal and posterior parietal cortex in monkeys. Visual Neuroscience, 1993, 10, 59-72.	0.5	181
47	Projections to the superior temporal sulcus from the central and peripheral field representations of V1 and V2. Journal of Comparative Neurology, 1986, 248, 147-163.	0.9	175
48	Attentional Modulation of Cell-Class-Specific Gamma-Band Synchronization in Awake Monkey Area V4. Neuron, 2013, 80, 1077-1089.	3.8	174
49	Atypical behaviour and connectivity in SHANK3-mutant macaques. Nature, 2019, 570, 326-331.	13.7	172
50	Prestriate afferents to inferior temporal cortex: an HRP study. Brain Research, 1980, 184, 41-55.	1.1	169
51	Internal globus pallidus discharge is nearly suppressed during levodopa-induced dyskinesias. Annals of Neurology, 1999, 46, 732-738.	2.8	168
52	Lesions of prefrontal cortex reduce attentional modulation of neuronal responses and synchrony in V4. Nature Neuroscience, 2014, 17, 1003-1011.	7.1	166
53	Topâ€“Down Attentional Deficits in Macaques with Lesions of Lateral Prefrontal Cortex. Journal of Neuroscience, 2007, 27, 11306-11314.	1.7	157
54	Perceptual filling-in: a parametric study. Vision Research, 1998, 38, 2721-2734.	0.7	156

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55	Loss of attentional stimulus selection after extrastriate cortical lesions in macaques. Nature Neuroscience, 1999, 2, 753-758.	7.1	154
56	Contextual Modulation in Primary Visual Cortex of Macaques. Journal of Neuroscience, 2001, 21, 1698-1709.	1.7	154
57	Object decoding with attention in inferior temporal cortex. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8850-8855.	3.3	150
58	Posterior parietal cortex and the filtering of distractors. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 4263-4268.	3.3	145
59	Cue-dependent deficits in grating orientation discrimination after V4 lesions in macaques. Visual Neuroscience, 1996, 13, 529-538.	0.5	132
60	Subcortical connections of visual areas MST and FST in macaques. Visual Neuroscience, 1992, 9, 291-302.	0.5	128
61	Opportunities and challenges in modeling human brain disorders in transgenic primates. Nature Neuroscience, 2016, 19, 1123-1130.	7.1	115
62	Stimulus repetition modulates gamma-band synchronization in primate visual cortex. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3626-3631.	3.3	112
63	Gamma-Rhythmic Gain Modulation. Neuron, 2016, 92, 240-251.	3.8	111
64	Empirical mode decomposition: a method for analyzing neural data. Neurocomputing, 2005, 65-66, 801-807.	3.5	104
65	Clustering of perirhinal neurons with similar properties following visual experience in adult monkeys. Nature Neuroscience, 2000, 3, 1143-1148.	7.1	101
66	Alpha Synchrony and the Neurofeedback Control of Spatial Attention. Neuron, 2020, 105, 577-587.e5.	3.8	90
67	Enhanced Neural Processing by Covert Attention only during Microsaccades Directed toward the Attended Stimulus. Neuron, 2018, 99, 207-214.e3.	3.8	87
68	Learning Increases Stimulus Salience in Anterior Inferior Temporal Cortex of the Macaque. Journal of Neurophysiology, 2001, 86, 290-303.	0.9	78
69	A role for the corpus callosum in visual area V4 of the macaque. Visual Neuroscience, 1993, 10, 159-171.	0.5	76
70	Long-range neural coupling through synchronization with attention. Progress in Brain Research, 2009, 176, 35-45.	0.9	76
71	Empirical mode decomposition of field potentials from macaque V4 in visual spatial attention. Biological Cybernetics, 2005, 92, 380-392.	0.6	73
72	Subcortical connections of area V4 in the macaque. Journal of Comparative Neurology, 2014, 522, 1941-1965.	0.9	71

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73	Selectivity and sparseness in the responses of striate complex cells. Vision Research, 2005, 45, 57-73.	0.7	68
74	Is dopamine a missing link?. Nature, 1995, 376, 549-550.	13.7	62
75	Scopolamine affects short-term memory but not inferior temporal neurons. NeuroReport, 1993, 4, 81.	0.6	59
76	Prosthetic systems for therapeutic optical activation and silencing of genetically targeted neurons. Proceedings of SPIE, 2008, 6854, 68540H.	0.8	57
77	The role of prefrontal cortex in the control of feature attention in area V4. Nature Communications, 2019, 10, 5727.	5.8	46
78	Rhythmic neuronal synchronization in visual cortex entails spatial phase relation diversity that is modulated by stimulation and attention. NeuroImage, 2013, 74, 99-116.	2.1	36
79	Impaired Filtering of Distracter Stimuli by TE Neurons following V4 and TEO Lesions in Macaques. Cerebral Cortex, 2004, 15, 141-151.	1.6	34
80	Chapter 9 Finding a face in the crowd: parallel and serial neural mechanisms of visual selection. Progress in Brain Research, 2006, 155, 147-156.	0.9	34
81	Generalized deficits in visual selective attention after V4 and TEO lesions in macaques. European Journal of Neuroscience, 2003, 18, 1671-1691.	1.2	33
82	Attentional control during the transient updating of cue information. Brain Research, 2009, 1247, 149-158.	1.1	31
83	Connectional subdivision of the claustrum: two visuotopic subdivisions in the macaque. Frontiers in Systems Neuroscience, 2014, 8, 63.	1.2	29
84	Custom-fit radiolucent cranial implants for neurophysiological recording and stimulation. Journal of Neuroscience Methods, 2015, 241, 146-154.	1.3	29
85	The cortical connectome of primate lateral prefrontal cortex. Neuron, 2022, 110, 312-327.e7.	3.8	25
86	Stimulation of the nucleus accumbens as behavioral reward in awake behaving monkeys. Journal of Neuroscience Methods, 2011, 199, 265-272.	1.3	21
87	Subcortical Projections of Area V2 in the Macaque. Journal of Cognitive Neuroscience, 2014, 26, 1220-1233.	1.1	21
88	A procedure for testing across-condition rhythmic spike-field association change. Journal of Neuroscience Methods, 2013, 213, 43-62.	1.3	18
89	Temporal dynamics of attention-modulated neuronal synchronization in macaque V4. Neurocomputing, 2003, 52-54, 481-487.	3.5	15
90	Impairments in Spatial Generalization of Visual Skills After V4 and TEO Lesions in Macaques (Macaca) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.6	10

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91	Effect of Microstimulation of the Superior Colliculus on Visual Space Attention. Journal of Cognitive Neuroscience, 2014, 26, 1208-1219.	1.1	8
92	Neural Mechanisms of Attention in Extrastriate Cortex of Monkeys. Research Notes in Neural Computing, 1989, , 169-182.	0.1	7
93	Complexity at the neuronal level. Behavioral and Brain Sciences, 1990, 13, 446-446.	0.4	4
94	Transcranial alternating current stimulation (tACS) reveals causal role of brain oscillations in visual attention. Journal of Vision, 2016, 16, 937.	0.1	4
95	Alpha and gamma neurofeedback reinforce control of spatial attention. Journal of Vision, 2017, 17, 385.	0.1	4
96	Cognitive neuroscience. Current Opinion in Neurobiology, 1998, 8, 175-177.	2.0	3
97	From Humble Neural Beginnings Comes Knowledge of Numbers. Neuron, 2003, 37, 4-6.	3.8	3
98	Selective Visual Attention Modulates Oscillatory Neuronal Synchronization. , 2005, , 520-525.		3
99	Attention control og visual perception. Electroencephalography and Clinical Neurophysiology, 1997, 102, P4.	0.3	2
100	Neural mechanisms of attention and memory in extrastriate cortex. Neuroscience Research Supplement: the Official Journal of the Japan Neuroscience Society, 1991, 16, X.	0.0	1
101	Neural synchrony and selective attention. , 2009, , .		1
102	Form, Color, and Motion Analysis in Prestriate Cortex of the Macaque. Experimental Brain Research Supplementum, 1985, , 165-178.	1.0	1
103	Memory-guided attentional systems. Spatial Vision, 1993, 7, 85.	1.4	0
104	Subcortical connections of area V4 in the macaque. Anais Da Academia Brasileira De Ciencias, 2000, 72, 443-444.	0.3	0
105	Cortical connections of area V4 in the macaque. Anais Da Academia Brasileira De Ciencias, 2000, 72, 444-444.	0.3	0
106	PROPERTIES OF INFERIOR TEMPORAL NEURONS IN THE MACAQUE. , 1981, , 287-289.		0
107	ATTENTION CONTROL OF VISUAL PERCEPTION. Journal of Clinical Neurophysiology, 1996, 13, 349-350.	0.9	0