Simon J Thorpe

List of Publications by Year
in descending order

118	15,296	36203	32761
papers	citations	51 h-index	100 g-index

126	126	126	8672
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	2022 roadmap on neuromorphic computing and engineering. Neuromorphic Computing and Engineering, 2022, 2, 022501.	2.8	217
2	Tracking Your Mind's Eye during Recollection: Decoding the Long-Term Recall of Short Audiovisual Clips. Journal of Cognitive Neuroscience, 2020, 32, 50-64.	1.1	3
3	Recording local field potential and neuronal activity with tetrodes in epileptic patients. Journal of Neuroscience Methods, 2020, 341, 108759.	1.3	15
4	24-Month-olds and over remember novel object names after a single learning event. Journal of Experimental Child Psychology, 2020, 196, 104859.	0.7	2
5	Stimulus Onset Hub: an Open-Source, Low Latency, and Opto-Isolated Trigger Box for Neuroscientific Research Replicability and Beyond. Frontiers in Neuroinformatics, 2020, 14, 2.	1.3	1
6	Microsaccades during high speed continuous visual search. Journal of Eye Movement Research, 2020, 13, .	0.5	0
7	Object categorization in visual periphery is modulated by delayed foveal noise. Journal of Vision, 2019, 19, 1.	0.1	7
8	Neuronal spiking activity highlights a gradient of epileptogenicity in human tuberous sclerosis lesions. Clinical Neurophysiology, 2019, 130, 537-547.	0.7	16
9	Bio-inspired digit recognition using reward-modulated spike-timing-dependent plasticity in deep convolutional networks. Pattern Recognition, 2019, 94, 87-95.	5.1	99
10	Regularity is not a key factor for encoding repetition in rapid image streams. Scientific Reports, 2019, 9, 6872.	1.6	1
11	Memory for Repeated Images in Rapid-Serial-Visual-Presentation Streams of Thousands of Images. Psychological Science, 2019, 30, 989-1000.	1.8	15
12	STDP-based spiking deep convolutional neural networks for object recognition. Neural Networks, 2018, 99, 56-67.	3.3	471
13	Extremely long-term memory and familiarity after 12â€¯years. Cognition, 2018, 170, 254-262.	1.1	13
14	Zapping 500 faces in less than 100â€‰‰seconds: Evidence for extremely fast and sustained continuous visual search. Scientific Reports, 2018, 8, 12482.	1.6	18
15	High Resolution Human Eye Tracking During Continuous Visual Search. Frontiers in Human Neuroscience, 2018, 12, 374.	1.0	3
16	Unsupervised Feature Learning With Winner-Takes-All Based STDP. Frontiers in Computational Neuroscience, 2018, 12, 24.	1.2	60
17	From face processing to face recognition: Comparing three different processing levels. Cognition, 2017, 158, 33-43.	1.1	46
18	Waking Up Buried Memories of Old TV Programs. Frontiers in Behavioral Neuroscience, 2017, 11, 60.	1.0	2

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19	Unsupervised learning of repeating patterns using a novel STDP based algorithm. Journal of Vision, 2017, 17, 1079.	0.1	1
20	Finding faces, animals, and vehicles in far peripheral vision. Journal of Vision, 2016, 16, 10.	0.1	50
21	Long Term Memory for Noise: Evidence of Robust Encoding of Very Short Temporal Acoustic Patterns. Frontiers in Neuroscience, 2016, 10, 490.	1.4	19
22	Investigating implicit statistical learning mechanisms through contextual cueing. Trends in Cognitive Sciences, 2015, 19, 524-533.	4.0	118
23	At 120 msec You Can Spot the Animal but You Don't Yet Know It's a Dog. Journal of Cognitive Neuroscience, 2015, 27, 141-149.	1.1	45
24	Waking up buried memories. Journal of Vision, 2015, 15, 93.	0.1	0
25	A hippocampal temporal gating mechanism for episodic visual memories. Journal of Vision, 2015, 15, 89.	0.1	0
26	Creating shortcuts in the visual hierarchy: improving saccadic reaction time and accuracy with RSVP training. Journal of Vision, 2015, 15, 1111.	0.1	0
27	Auditory gist: Recognition of very short sounds from timbre cues. Journal of the Acoustical Society of America, 2014, 135, 1380-1391.	0.5	44
28	Concept Cells through Associative Learning of High-Level Representations. Neuron, 2014, 84, 248-251.	3.8	8
29	Making Sense of Scenes with Spike-Based Processing. , 2014, , 199-224.		0
30	Processing of Short Auditory Stimuli: The Rapid Audio Sequential Presentation Paradigm (RASP). Advances in Experimental Medicine and Biology, 2013, 787, 443-451.	0.8	4
31	Design study of efficient digital order-based STDP neuron implementations for extracting temporal features. , 2013, , .		8
32	Fast recognition of musical sounds based on timbre. Journal of the Acoustical Society of America, 2012, 131, 4124-4133.	0.5	59
33	NAVIG: Guidance system for the visually impaired using virtual augmented reality. Technology and Disability, 2012, 24, 163-178.	0.3	29
34	Extraction of temporally correlated features from dynamic vision sensors with spike-timing-dependent plasticity. Neural Networks, 2012, 32, 339-348.	3.3	132
35	Navigation and space perception assistance for the visually impaired: The NAVIG project. Irbm, 2012, 33, 182-189.	3.7	55
36	NAVIG: augmented reality guidance system for the visually impaired. Virtual Reality, 2012, 16, 253-269.	4.1	115

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37	Word processing speed in peripheral vision measured with a saccadic choice task. Vision Research, 2012, 56, 10-19.	0.7	15
38	Spike-Based Image Processing: Can We Reproduce Biological Vision in Hardware?. Lecture Notes in Computer Science, 2012, , 516-521.	1.0	10
39	Animal Detection Precedes Access to Scene Category. PLoS ONE, 2012, 7, e51471.	1.1	43
40	Unsupervised features extraction from asynchronous silicon retina through Spike-Timing-Dependent Plasticity. , 2011, , .		24
41	Low-level cues and ultra-fast face detection. Frontiers in Psychology, 2011, 2, 342.	1.1	74
42	ARTIFICIAL VISION FOR THE BLIND: A BIO-INSPIRED ALGORITHM FOR OBJECTS AND OBSTACLES DETECTION. International Journal of Image and Graphics, 2010, 10, 531-544.	1.2	14
43	Learning to recognize objects using waves of spikes and Spike Timing-Dependent Plasticity. , 2010, , .		31
44	Characteristics of human voice processing. , 2010, , .		21
45	Rapid Formation of Robust Auditory Memories: Insights from Noise. Neuron, 2010, 66, 610-618.	3.8	177
46	Fast saccades toward faces: Face detection in just 100 ms. Journal of Vision, 2010, 10, 1-17.	0.1	334
47	Suggestions for a biologically inspired spiking retina using order-based coding. , 2010, , .		4
48	The Implicit Learning of Noise: Behavioral Data and Computational Models. , 2010, , 571-579.		0
49	Covert object recognition at large visual eccentricity. Journal of Vision, 2010, 1, 471-471.	0.1	1
50	Ultra-Rapid Sensory Responses in the Human Frontal Eye Field Region. Journal of Neuroscience, 2009, 29, 7599-7606.	1.7	89
51	The Speed of Categorization in the Human Visual System. Neuron, 2009, 62, 168-170.	3.8	37
52	Competitive STDP-Based Spike Pattern Learning. Neural Computation, 2009, 21, 1259-1276.	1.3	248
53	Oscillations, Phase-of-Firing Coding, and Spike Timing-Dependent Plasticity: An Efficient Learning Scheme. Journal of Neuroscience, 2009, 29, 13484-13493.	1.7	153
54	Barlow's 1972 Paper. Perception, 2009, 38, 795-807.	0.5	10

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55	Designing an assistive device for the blind based on object localization and augmented auditory reality. , 2008, , .		20
56	Spike Timing Dependent Plasticity Finds the Start of Repeating Patterns in Continuous Spike Trains. PLoS ONE, 2008, 3, e1377.	1.1	224
57	Unsupervised Learning of Visual Features through Spike Timing Dependent Plasticity. PLoS Computational Biology, 2007, 3, e31.	1.5	409
58	Limits of Event-related Potential Differences in Tracking Object Processing Speed. Journal of Cognitive Neuroscience, 2007, 19, 1241-1258.	1.1	40
59	Effects of task requirements on rapid natural scene processing: From common sensory encoding to distinct decisional mechanisms.. Journal of Experimental Psychology: Human Perception and Performance, 2007, 33, 1013-1026.	0.7	37
60	Ultra-rapid object detection with saccadic eye movements: Visual processing speed revisited. Vision Research, 2006, 46, 1762-1776.	0.7	500
61	Animals roll around the clock: The rotation invariance of ultrarapid visual processing. Journal of Vision, 2006, 6, 1.	0.1	28
62	Rapid categorization of achromatic natural scenes: how robust at very low contrasts?. European Journal of Neuroscience, 2005, 21, 2007-2018.	1.2	70
63	Neurons Tune to the Earliest Spikes Through STDP. Neural Computation, 2005, 17, 859-879.	1.3	109
64	Rapid categorization of foveal and extrafoveal natural images: Associated ERPs and effects of lateralization. Brain and Cognition, 2005, 59, 145-158.	0.8	29
65	The time course of visual processing: Backward masking and natural scene categorisation. Vision Research, 2005, 45, 1459-1469.	0.7	189
66	Spike times make sense. Trends in Neurosciences, 2005, 28, 1-4.	4.2	376
67	Sparse spike coding in an asynchronous feed-forward multi-layer neural network using matching pursuit. Neurocomputing, 2004, 57, 125-134.	3.5	32
68	SpikeNet: real-time visual processing with one spike per neuron. Neurocomputing, 2004, 58-60, 857-864.	3.5	44
69	Temporal codes and sparse representations: A key to understanding rapid processing in the visual system. Journal of Physiology (Paris), 2004, 98, 487-497.	2.1	50
70	Coding Static Natural Images Using Spiking Event Times: Do Neurons Cooperate?. IEEE Transactions on Neural Networks, 2004, 15, 1164-1175.	4.8	49
71	Processing of one, two or four natural scenes in humans: the limits of parallelism. Vision Research, 2004, 44, 877-894.	0.7	80
72	How parallel is visual processing in the ventral pathway?. Trends in Cognitive Sciences, 2004, 8, 363-370.	4.0	162

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73	Taking the MAX from neuronal responses. Trends in Cognitive Sciences, 2003, 7, 99-102.	4.0	21
74	SpikeNET: an event-driven simulation package for modelling large networks of spiking neurons. Network: Computation in Neural Systems, 2003, 14, 613-627.	2.2	55
75	SpikeNET: an event-driven simulation package for modelling large networks of spiking neurons. Network: Computation in Neural Systems, 2003, 14, 613-27.	2.2	17
76	Surfing a spike wave down the ventral stream. Vision Research, 2002, 42, 2593-2615.	0.7	218
77	Parallel processing in high-level categorization of natural images. Nature Neuroscience, 2002, 5, 629-630.	7.1	335
78	Ultra-Rapid Scene Categorization with a Wave of Spikes. Lecture Notes in Computer Science, 2002, , 1-15.	1.0	31
79	Rate Coding Versus Temporal Order Coding: What the Retinal Ganglion Cells Tell the Visual Cortex. Neural Computation, 2001, 13, 1255-1283.	1.3	378
80	Is it a Bird? Is it a Plane? Ultra-Rapid Visual Categorisation of Natural and Artifactual Objects. Perception, 2001, 30, 655-668.	0.5	298
81	Face identification using one spike per neuron: resistance to image degradations. Neural Networks, 2001, 14, 795-803.	3.3	136
82	Spike-based strategies for rapid processing. Neural Networks, 2001, 14, 715-725.	3.3	535
83	Detection of animals in natural images using far peripheral vision. European Journal of Neuroscience, 2001, 14, 869-876.	1.2	171
84	The Time Course of Visual Processing: From Early Perception to Decision-Making. Journal of Cognitive Neuroscience, 2001, 13, 454-461.	1.1	599
85	Networks of integrate-and-fire neurons using Rank Order Coding B: Spike timing dependent plasticity and emergence of orientation selectivity. Neurocomputing, 2001, 38-40, 539-545.	3.5	86
86	Feed-forward contour integration in primary visual cortex based on asynchronous spike propagation. Neurocomputing, 2001, 38-40, 1003-1009.	3.5	40
87	Networks of integrate-and-fire neuron using rank order coding A: How to implement spike time dependent Hebbian plasticity. Neurocomputing, 2001, 38-40, 817-822.	3.5	22
88	A Limit to the Speed of Processing in Ultra-Rapid Visual Categorization of Novel Natural Scenes. Journal of Cognitive Neuroscience, 2001, 13, 171-180.	1.1	305
89	NEUROSCIENCE: Seeking Categories in the Brain. Science, 2001, 291, 260-263.	6.0	250
90	Brain Areas Involved in Rapid Categorization of Natural Images: An Event-Related fMRI Study. NeuroImage, 2000, 11, 634-643.	2.1	43

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91	PATTERN RECOGNITION IN THE VISUAL SYSTEM AND THE NATURE OF NEURAL CODING. , 2000, , 382-391.		0
92	Spatial attention in asynchronous neural networks. Neurocomputing, 1999, 26-27, 911-918.	3.5	11
93	SpikeNET: A simulator for modeling large networks of integrate and fire neurons. Neurocomputing, 1999, 26-27, 989-996.	3.5	120
94	Face processing using one spike per neurone. BioSystems, 1998, 48, 229-239.	0.9	113
95	Rate coding versus temporal order coding: a theoretical approach. BioSystems, 1998, 48, 57-65.	0.9	184
96	Rapid categorization of natural images by rhesus monkeys. NeuroReport, 1998, 9, 303-308.	0.6	182
97	Rank Order Coding. , 1998, , 113-118.		169
98	Rapid Categorization of Extrafoveal Natural Images: Implications for Biological Models. , 1998, , 7-12.		3
99	The Effects of Spatial Frequency on Binocular Fusion: From Elementary to Complex Images. Human Factors, 1997, 39, 359-373.	2.1	13
100	Implementing hebbian learning in a rank-based neural network. Lecture Notes in Computer Science, 1997, , 145-150.	1.0	6
101	Neural processing of stereopsis as a function of viewing distance in primate visual cortical area V1. Journal of Neurophysiology, 1996, 76, 2872-2885.	0.9	84
102	Speed of processing in the human visual system. Nature, 1996, 381, 520-522.	13.7	3,093
103	Dynamics of orientation coding in area V1 of the awake primate. Visual Neuroscience, 1993, 10, 811-825.	0.5	247
104	Temporal synchrony and the speed of visual processing. Behavioral and Brain Sciences, 1993, 16, 473-474.	0.4	2
105	Neural processing of stereopsis as a function of viewing distance. , 1993, , 474-484.		5
106	Modulation of neural stereoscopic processing in primate area V1 by the viewing distance. Science, 1992, 257, 1279-1281.	6.0	161
107	Cellular analogs of visual cortical epigenesis. I. Plasticity of orientation selectivity. Journal of Neuroscience, 1992, 12, 1280-1300.	1.7	103
108	Connectionist Models of Orientation Identification. Connection Science, 1991, 3, 127-142.	1.8	14

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109	A cellular analogue of visual cortical plasticity. Nature, 1988, 333, 367-370.	13.7	300
110	Sensory-specific satiety: Food-specific reduction in responsiveness of ventral forebrain neurons after feeding in the monkey. Brain Research, 1986, 368, 79-86.	1.1	186
111	Responses of striatal neurons in the behaving monkey. 3. Effects of iontophoretically applied dopamine on normal responsiveness. Neuroscience, 1984, 12, 1201-1212.	1.1	161
112	The orbitofrontal cortex: Neuronal activity in the behaving monkey. Experimental Brain Research, 1983, 49, 93-115.	0.7	751
113	Responses of striatal neurons in the behaving monkey. 1. Head of the caudate nucleus. Behavioural Brain Research, 1983, 7, 179-210.	1.2	271
114	Visual processing beyond the inferior temporal visual cortex. Behavioural Brain Research, 1982, 5, 114-115.	1.2	2
115	The influence of motivation on the responses of neurons in the posterior parietal association cortex. Behavioral and Brain Sciences, 1980, 3, 514-515.	0.4	3
116	Responses of neurons in area 7 of the parietal cortex to objects of different significance. Brain Research, 1979, 169, 194-198.	1.1	75
117	Reverse engineering of the visual system using networks of spiking neurons. , 0, , .		13
118	SpikeNET: an event-driven simulation package for modelling large networks of spiking neurons. , 0, .		66