

# Christopher Summerfield

## List of Publications by Year in descending order

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Version: 2024-02-01

61  
papers

7,150  
citations

147801

31  
h-index

128289

60  
g-index

71  
all docs

71  
docs citations

71  
times ranked

6278  
citing authors

#	ARTICLE	IF	CITATIONS
1	Human optional stopping in a heteroscedastic world.. Psychological Review, 2023, 130, 1-22.	3.8	3
2	Normative Principles for Decision-Making in Natural Environments. Annual Review of Psychology, 2022, 73, 53-77.	17.7	8
3	A Normative Account of Confirmation Bias During Reinforcement Learning. Neural Computation, 2022, 34, 307-337.	2.2	17
4	Orthogonal representations for robust context-dependent task performance in brains and neural networks. Neuron, 2022, 110, 1258-1270.e11.	8.1	77
5	A practical guide for studying human behavior in the lab. Behavior Research Methods, 2022, , 1.	4.0	3
6	Model Sharing in the Human Medial Temporal Lobe. Journal of Neuroscience, 2022, 42, 5410-5426.	3.6	3
7	Human-centred mechanism design with Democratic AI. Nature Human Behaviour, 2022, 6, 1398-1407.	12.0	22
8	If deep learning is the answer, what is the question?. Nature Reviews Neuroscience, 2021, 22, 55-67.	10.2	185
9	Hippocampal place cells encode global location but not connectivity in a complex space. Current Biology, 2021, 31, 1221-1233.e9.	3.9	30
10	Neural state space alignment for magnitude generalization in humans and recurrent networks. Neuron, 2021, 109, 1214-1226.e8.	8.1	35
11	Optimal utility and probability functions for agents with finite computational precision. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	23
12	Structure learning and the posterior parietal cortex. Progress in Neurobiology, 2020, 184, 101717.	5.7	57
13	How Can Neuroscientists Respond to the Climate Emergency?. Neuron, 2020, 106, 17-20.	8.1	18
14	A map of decoy influence in human multialternative choice. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25169-25178.	7.1	28
15	Selective Integration during Sequential Sampling in Posterior Neural Signals. Cerebral Cortex, 2020, 30, 4454-4464.	2.9	11
16	How does value distract?. Nature Human Behaviour, 2020, 4, 564-564.	12.0	0
17	Where Does Value Come From?. Trends in Cognitive Sciences, 2019, 23, 836-850.	7.8	73
18	A Network for Computing Value Equilibrium in the Human Medial Prefrontal Cortex. Neuron, 2019, 101, 977-987.e3.	8.1	30

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19	Human noise blindness drives suboptimal cognitive inference. <i>Nature Communications</i> , 2019, 10, 1719.	12.8	19
20	Causal Inference in the Multisensory Brain. <i>Neuron</i> , 2019, 102, 1076-1087.e8.	8.1	134
21	Neural structure mapping in human probabilistic reward learning. <i>ELife</i> , 2019, 8, .	6.0	53
22	Comparing continual task learning in minds and machines. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E10313-E10322.	7.1	76
23	Gain control explains the effect of distraction in human perceptual, cognitive, and economic decision making. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E8825-E8834.	7.1	38
24	Perceptual suboptimality: Bug or feature?. <i>Behavioral and Brain Sciences</i> , 2018, 41, e245.	0.7	5
25	Robust sampling of decision information during perceptual choice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 2771-2776.	7.1	23
26	Ventromedial Prefrontal Cortex Encodes a Latent Estimate of Cumulative Reward. <i>Neuron</i> , 2017, 93, 705-714.e4.	8.1	35
27	Confidence matching in group decision-making. <i>Nature Human Behaviour</i> , 2017, 1, .	12.0	83
28	Perceptual Decision Making in Rodents, Monkeys, and Humans. <i>Neuron</i> , 2017, 93, 15-31.	8.1	261
29	Neuroscience-Inspired Artificial Intelligence. <i>Neuron</i> , 2017, 95, 245-258.	8.1	934
30	Selective overweighting of larger magnitudes during noisy numerical comparison. <i>Nature Human Behaviour</i> , 2017, 1, 145.	12.0	54
31	Neural Circuits Trained with Standard Reinforcement Learning Can Accumulate Probabilistic Information during Decision Making. <i>Neural Computation</i> , 2017, 29, 368-393.	2.2	2
32	Robust averaging protects decisions from noise in neural computations. <i>PLoS Computational Biology</i> , 2017, 13, e1005723.	3.2	41
33	Task relevance differentially shapes ventral visual stream sensitivity to visible and invisible faces. <i>Neuroscience of Consciousness</i> , 2016, 2016, niw021.	2.6	3
34	Neural Mechanisms of Hierarchical Planning in a Virtual Subway Network. <i>Neuron</i> , 2016, 90, 893-903.	8.1	128
35	Feature-Based Attention and Feature-Based Expectation. <i>Trends in Cognitive Sciences</i> , 2016, 20, 401-404.	7.8	61
36	Hybrid computing using a neural network with dynamic external memory. <i>Nature</i> , 2016, 538, 471-476.	27.8	799

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37	Encoding of Stimulus Probability in Macaque Inferior Temporal Cortex. <i>Current Biology</i> , 2016, 26, 2280-2290.	3.9	86
38	Reply to Davis-Stober et al.: Violations of rationality in a psychophysical task are not aggregation artifacts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E4764-6.	7.1	5
39	Visual Prediction Error Spreads Across Object Features in Human Visual Cortex. <i>Journal of Neuroscience</i> , 2016, 36, 12746-12763.	3.6	22
40	Rhythmic gain control during supramodal integration of approximate number. <i>NeuroImage</i> , 2016, 129, 470-479.	4.2	27
41	Economic irrationality is optimal during noisy decision making. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 3102-3107.	7.1	102
42	Ghosts in the Decision Machine. <i>Neuron</i> , 2015, 86, 861-863.	8.1	1
43	The P300 as a build-to-threshold variable (Commentary on Twomey et al.). <i>European Journal of Neuroscience</i> , 2015, 42, 1635-1635.	2.6	2
44	Neural Mechanisms of Human Perceptual Choice Under Focused and Divided Attention. <i>Journal of Neuroscience</i> , 2015, 35, 3485-3498.	3.6	65
45	Unreliable Evidence: 2 Sources of Uncertainty During Perceptual Choice. <i>Cerebral Cortex</i> , 2015, 25, 937-947.	2.9	28
46	Do humans make good decisions?. <i>Trends in Cognitive Sciences</i> , 2015, 19, 27-34.	7.8	109
47	Priming by the variability of visual information. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 7873-7878.	7.1	49
48	Adaptive Gain Control during Human Perceptual Choice. <i>Neuron</i> , 2014, 81, 1429-1441.	8.1	147
49	Expectation in perceptual decision making: neural and computational mechanisms. <i>Nature Reviews Neuroscience</i> , 2014, 15, 745-756.	10.2	595
50	Neural mechanisms of economic commitment in the human medial prefrontal cortex. <i>ELife</i> , 2014, 3, .	6.0	8
51	Oh, rats! Post-error behavioral adjustment in creatures great and small. <i>Nature Neuroscience</i> , 2013, 16, 1715-1716.	14.8	4
52	Attention Sharpens the Distinction between Expected and Unexpected Percepts in the Visual Brain. <i>Journal of Neuroscience</i> , 2013, 33, 18438-18447.	3.6	111
53	Concurrent Repetition Enhancement and Suppression Responses in Extrastriate Visual Cortex. <i>Cerebral Cortex</i> , 2013, 23, 2235-2244.	2.9	78
54	Building Bridges between Perceptual and Economic Decision-Making: Neural and Computational Mechanisms. <i>Frontiers in Neuroscience</i> , 2012, 6, 70.	2.8	129

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55	Perceptual Classification in a Rapidly Changing Environment. <i>Neuron</i> , 2011, 71, 725-736.	8.1	70
56	Human Scalp Electroencephalography Reveals that Repetition Suppression Varies with Expectation. <i>Frontiers in Human Neuroscience</i> , 2011, 5, 67.	2.0	113
57	Robust averaging during perceptual judgment. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 13341-13346.	7.1	144
58	Economic Value Biases Uncertain Perceptual Choices in the Parietal and Prefrontal Cortices. <i>Frontiers in Human Neuroscience</i> , 2010, 4, 208.	2.0	67
59	Expectation and Surprise Determine Neural Population Responses in the Ventral Visual Stream. <i>Journal of Neuroscience</i> , 2010, 30, 16601-16608.	3.6	368
60	Expectation (and attention) in visual cognition. <i>Trends in Cognitive Sciences</i> , 2009, 13, 403-409.	7.8	749
61	Neural repetition suppression reflects fulfilled perceptual expectations. <i>Nature Neuroscience</i> , 2008, 11, 1004-1006.	14.8	664