Alexandre Pouget

List of Publications by Year
in descending order

46 papers	11,650 citations	145106 33 h-index	252626 46 g-index
51 all docs	51 docs citations	51 times ranked	8320 citing authors

#	Article	IF	Citations
1	Mice alternate between discrete strategies during perceptual decision-making. Nature Neuroscience, 2022, 25, 201-212.	7.1	82
2	Internally generated population activity in cortical networks hinders information transmission. Science Advances, 2022, 8, .	4.7	4
3	Investigating the representation of uncertainty in neuronal circuits. PLoS Computational Biology, 2021, 17, e1008138.	1.5	9
4	Synaptic plasticity as Bayesian inference. Nature Neuroscience, 2021, 24, 565-571.	7.1	49
5	The impact of learning on perceptual decisions and its implication for speed-accuracy tradeoffs. Nature Communications, 2020, 11, 2757.	5.8	35
6	Optimal policy for multi-alternative decisions. Nature Neuroscience, 2019, 22, 1503-1511.	7.1	63
7	Learning optimal decisions with confidence. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 24872-24880.	3.3	56
8	Inferring decoding strategies for multiple correlated neural populations. PLoS Computational Biology, 2018, 14, e1006371.	1.5	18
9	Context- and Output Layer-Dependent Long-Term Ensemble Plasticity in a Sensory Circuit. Neuron, 2017, 93, 1198-1212.e5.	3.8	70
10	A probabilistic approach to demixing odors. Nature Neuroscience, 2017, 20, 98-106.	7.1	54
11	Robust information propagation through noisy neural circuits. PLoS Computational Biology, 2017, 13, e1005497.	1.5	46
12	A method to estimate the number of neurons supporting visual orientation discrimination in primates. F1000Research, 2017, 6, 1752.	0.8	3
13	Correlations and Neuronal Population Information. Annual Review of Neuroscience, 2016, 39, 237-256.	5.0	314
14	Optimal policy for value-based decision-making. Nature Communications, 2016, 7, 12400.	5.8	142
15	Confidence and certainty: distinct probabilistic quantities for different goals. Nature Neuroscience, 2016, 19, 366-374.	7.1	381
16	How Can Single Sensory Neurons Predict Behavior?. Neuron, 2015, 87, 411-423.	3.8	123
17	Multisensory decisions provide support for probabilistic number representations. Journal of Neurophysiology, 2015, 113, 3490-3498.	0.9	7
18	Origin of information-limiting noise correlations. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E6973-82.	3.3	129

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19	Measuring Fisher Information Accurately in Correlated Neural Populations. PLoS Computational Biology, 2015, 11, e1004218.	1.5	55
20	Young Children Bet on Their Numerical Skills. Psychological Science, 2014, 25, 1712-1721.	1.8	81
21	Put brain project back on course. Nature, 2014, 511, 534-534.	13.7	3
22	Action video game play facilitates the development of better perceptual templates. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16961-16966.	3.3	151
23	Information-limiting correlations. Nature Neuroscience, 2014, 17, 1410-1417.	7.1	478
24	Probabilistic brains: knowns and unknowns. Nature Neuroscience, 2013, 16, 1170-1178.	7.1	498
25	The Cost of Accumulating Evidence in Perceptual Decision Making. Journal of Neuroscience, 2012, 32, 3612-3628.	1.7	430
26	How the Bayesians got their beliefs (and what those beliefs actually are): Comment on Bowers and Davis (2012).. Psychological Bulletin, 2012, 138, 415-422.	5.5	108
27	Not Noisy, Just Wrong: The Role of Suboptimal Inference in Behavioral Variability. Neuron, 2012, 74, 30-39.	3.8	277
28	Neural correlates of reliability-based cue weighting during multisensory integration. Nature Neuroscience, 2012, 15, 146-154.	7.1	372
29	Bayesian sampling in visual perception. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 12491-12496.	3.3	155
30	Behavior and neural basis of near-optimal visual search. Nature Neuroscience, 2011, 14, 783-790.	7.1	98
31	Perceptual learning as improved probabilistic inference in early sensory areas. Nature Neuroscience, 2011, 14, 642-648.	7.1	108
32	Insights from a Simple Expression for Linear Fisher Information in a Recurrently Connected Population of Spiking Neurons. Neural Computation, 2011, 23, 1484-1502.	1.3	58
33	Variance as a Signature of Neural Computations during Decision Making. Neuron, 2011, 69, 818-831.	3.8	319
34	Optimal decision bounds for probabilistic population codes and time varying evidence. Nature Precedings, 2011, , .	0.1	2
35	Marginalization in Neural Circuits with Divisive Normalization. Journal of Neuroscience, 2011, 31, 15310-15319.	1.7	123
36	Probabilistic Population Codes for Bayesian Decision Making. Neuron, 2008, 60, 1142-1152.	3.8	589

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37	Exact Inferences in a Neural Implementation of a Hidden Markov Model. Neural Computation, 2007, 19, 1344-1361.	1.3	34
38	Optimal Sensorimotor Integration in Recurrent Cortical Networks: A Neural Implementation of Kalman Filters. Journal of Neuroscience, 2007, 27, 5744-5756.	1.7	110
39	Bayesian inference with probabilistic population codes. Nature Neuroscience, 2006, 9, 1432-1438.	7.1	1,250
40	Neural correlations, population coding and computation. Nature Reviews Neuroscience, 2006, 7, 358-366.	4.9	1,419
41	Tuning curve sharpening for orientation selectivity: coding efficiency and the impact of correlations. Nature Neuroscience, 2004, 7, 1129-1135.	7.1	209
42	The Bayesian brain: the role of uncertainty in neural coding and computation. Trends in Neurosciences, 2004, 27, 712-719.	4.2	1,774
43	Information processing with population codes. Nature Reviews Neuroscience, 2000, 1, 125-132.	4.9	610
44	Reading population codes: a neural implementation of ideal observers. Nature Neuroscience, 1999, 2, 740-745.	7.1	368
45	Probabilistic Interpretation of Population Codes. Neural Computation, 1998, 10, 403-430.	1.3	323
46	Connectionist Models of Orientation Identification. Connection Science, 1991, 3, 127-142.	1.8	14