Thomas Parr

List of Publications by Year in Descending Order

93 papers	2,172 citations	26 h-index	43 g-index
99 ext. papers	3,006 ext. citations	4.1 avg, IF	6.28 L-index

#	Paper	IF	Citations
93	Bayesian Brains and the Rényi Divergence.. *Neural Computation*, **2022**, 1-27	2.9	0
92	The evolution of brain architectures for predictive coding and active inference.. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2022**, 377, 20200531	5.8	5
91	Active Inference, Bayesian Optimal Design, and Expected Utility **2022**, 124-146		0
90	Understanding, Explanation, and Active Inference. *Frontiers in Systems Neuroscience*, **2021**, 15, 772641	3.5	1
89	Active inference, selective attention, and the cocktail party problem. *Neuroscience and Biobehavioral Reviews*, **2021**, 131, 1288-1304	9	2
88	The computational neurology of movement under active inference. *Brain*, **2021**, 144, 1799-1818	11.2	10
87	Sophisticated Inference. *Neural Computation*, **2021**, 33, 713-763	2.9	30
86	Active Inference: Demystified and Compared. *Neural Computation*, **2021**, 33, 674-712	2.9	33
85	Neural Dynamics under Active Inference: Plausibility and Efficiency of Information Processing. *Entropy*, **2021**, 23,	2.8	9
84	Generative Models for Active Vision. *Frontiers in Neurorobotics*, **2021**, 15, 651432	3.4	6
83	Immunoceptive inference: why are psychiatric disorders and immune responses intertwined?. *Biology and Philosophy*, **2021**, 36, 27	1.7	3
82	Message Passing and Metabolism. *Entropy*, **2021**, 23,	2.8	2
81	Dynamic causal modelling of immune heterogeneity. *Scientific Reports*, **2021**, 11, 11400	4.9	2
80	Markov blankets in the brain. *Neuroscience and Biobehavioral Reviews*, **2021**, 125, 88-97	9	12
79	Active listening. *Hearing Research*, **2021**, 399, 107998	3.9	9
78	Deeply Felt Affect: The Emergence of Valence in Deep Active Inference. *Neural Computation*, **2021**, 33, 398-446	2.9	40
77	Parcels and particles: Markov blankets in the brain. *Network Neuroscience*, **2021**, 5, 211-251	5.6	19

76	Some Interesting Observations on the Free Energy Principle. *Entropy*, **2021**, 23,	2.8	14
75	Contextual perception under active inference. *Scientific Reports*, **2021**, 11, 16223	4.9	0
74	Everything is connected: Inference and attractors in delusions. *Schizophrenia Research*, **2021**,	3.6	3
73	Memory and Markov Blankets. *Entropy*, **2021**, 23,	2.8	4
72	Stochastic Chaos and Markov Blankets. *Entropy*, **2021**, 23,	2.8	9
71	Active inference on discrete state-spaces: A synthesis. *Journal of Mathematical Psychology*, **2020**, 99, 102447	1.2	67
70	A Bayesian Account of Generalist and Specialist Formation Under the Active Inference Framework. *Frontiers in Artificial Intelligence*, **2020**, 3, 69	3	2
69	An Active Inference Approach to Modeling Structure Learning: Concept Learning as an Example Case. *Frontiers in Computational Neuroscience*, **2020**, 14, 41	3.5	20
68	Inferring What to Do (And What Not to). *Entropy*, **2020**, 22,	2.8	4
67	Degeneracy and Redundancy in Active Inference. *Cerebral Cortex*, **2020**, 30, 5750-5766	5.1	14
66	Markov blankets, information geometry and stochastic thermodynamics. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2020**, 378, 20190159	3	59
65	An Investigation of the Free Energy Principle for Emotion Recognition. *Frontiers in Computational Neuroscience*, **2020**, 14, 30	3.5	11
64	Dynamic causal modelling of COVID-19. *Wellcome Open Research*, **2020**, 5, 89	4.8	22
63	Dynamic causal modelling of COVID-19. *Wellcome Open Research*, **2020**, 5, 89	4.8	23
62	Second waves, social distancing, and the spread of COVID-19 across America. *Wellcome Open Research*, **2020**, 5, 103	4.8	21
61	Effective immunity and second waves: a dynamic causal modelling study. *Wellcome Open Research*, **2020**, 5, 204	4.8	3
60	Effective immunity and second waves: a dynamic causal modelling study. *Wellcome Open Research*, **2020**, 5, 204	4.8	4
59	Deep Active Inference and Scene Construction. *Frontiers in Artificial Intelligence*, **2020**, 3, 509354	3	10

58	Choosing a Markov blanket. *Behavioral and Brain Sciences*, **2020**, 43, e112	0.9	1
57	Searching for an anchor in an unpredictable world: A computational model of obsessive compulsive disorder. *Psychological Review*, **2020**, 127, 672-699	6.3	16
56	Paradoxical lesions, plasticity and active inference. *Brain Communications*, **2020**, 2, fcaa164	4.5	3
55	Future climates: Markov blankets and active inference in the biosphere. *Journal of the Royal Society Interface*, **2020**, 17, 20200503	4.1	17
54	Active inference, stressors, and psychological trauma: A neuroethological model of (mal)adaptive explore-exploit dynamics in ecological context. *Behavioural Brain Research*, **2020**, 380, 112421	3.4	12
53	On Markov blankets and hierarchical self-organisation. *Journal of Theoretical Biology*, **2020**, 486, 110089	2.3	37
52	Generative models, linguistic communication and active inference. *Neuroscience and Biobehavioral Reviews*, **2020**, 118, 42-64	9	20
51	Modules or Mean-Fields?. *Entropy*, **2020**, 22,	2.8	13
50	Second waves, social distancing, and the spread of COVID-19 across America. *Wellcome Open Research*, **2020**, 5, 103	4.8	5
49	Prefrontal Computation as Active Inference. *Cerebral Cortex*, **2020**, 30, 682-695	5.1	22
48	Generalised free energy and active inference. *Biological Cybernetics*, **2019**, 113, 495-513	2.8	63
47	Perceptual awareness and active inference. *Neuroscience of Consciousness*, **2019**, 2019, niz012	3.3	26
46	Hallucinations both in and out of context: An active inference account. *PLoS ONE*, **2019**, 14, e0212379	3.7	12
45	Introducing a Bayesian model of selective attention based on active inference. *Scientific Reports*, **2019**, 9, 13915	4.9	20
44	Neurocomputational mechanisms underlying emotional awareness: Insights afforded by deep active inference and their potential clinical relevance. *Neuroscience and Biobehavioral Reviews*, **2019**, 107, 473-491	9	39
43	From Computation to the First-Person: Auditory-Verbal Hallucinations and Delusions of Thought Interference in Schizophrenia-Spectrum Psychoses. *Schizophrenia Bulletin*, **2019**, 45, S56-S66	1.3	13
42	The emergence of synchrony in networks of mutually inferring neurons. *Scientific Reports*, **2019**, 9, 6412	4.9	18
41	Dynamic Causal Modelling of Active Vision. *Journal of Neuroscience*, **2019**, 39, 6265-6275	6.6	12

40	Neuronal message passing using Mean-field, Bethe, and Marginal approximations. *Scientific Reports*, **2019**, 9, 1889	4.9	60
39	Thalamocortical dynamics underlying spontaneous transitions in beta power in Parkinsonism. *NeuroImage*, **2019**, 193, 103-114	7.9	13
38	Passive motion and active inference: Commentary on "Muscleless motor synergies and actions without movements: From motor neuroscience to cognitive robotics" by Vishwanathan Mohan, Ajaz Bhat and Pietro Morasso. *Physics of Life Reviews*, **2019**, 30, 112-115	2.1	3
37	Active Inference, Novelty and Neglect. *Current Topics in Behavioral Neurosciences*, **2019**, 41, 115-128	3.4	4
36	The computational pharmacology of oculomotion. *Psychopharmacology*, **2019**, 236, 2473-2484	4.7	7
35	With an eye on uncertainty: Modelling pupillary responses to environmental volatility. *PLoS Computational Biology*, **2019**, 15, e1007126	5	15
34	Bayesian Filtering with Multiple Internal Models: Toward a Theory of Social Intelligence. *Neural Computation*, **2019**, 31, 2390-2431	2.9	9
33	Simulating Emotions: An Active Inference Model of Emotional State Inference and Emotion Concept Learning. *Frontiers in Psychology*, **2019**, 10, 2844	3.4	35
32	Impulsivity and Active Inference. *Journal of Cognitive Neuroscience*, **2019**, 31, 202-220	3.1	8
31	Attention or salience?. *Current Opinion in Psychology*, **2019**, 29, 1-5	6.2	47
30	Active inference and the anatomy of oculomotion. *Neuropsychologia*, **2018**, 111, 334-343	3.2	22
29	The Computational Anatomy of Visual Neglect. *Cerebral Cortex*, **2018**, 28, 777-790	5.1	31
28	The Markov blankets of life: autonomy, active inference and the free energy principle. *Journal of the Royal Society Interface*, **2018**, 15,	4.1	141
27	Free-energy minimization in joint agent-environment systems: A niche construction perspective. *Journal of Theoretical Biology*, **2018**, 455, 161-178	2.3	53
26	Computational Neuropsychology and Bayesian Inference. *Frontiers in Human Neuroscience*, **2018**, 12, 61	3.3	66
25	The Discrete and Continuous Brain: From Decisions to Movement-And Back Again. *Neural Computation*, **2018**, 30, 2319-2347	2.9	27
24	Active Inference and Auditory Hallucinations. *Computational Psychiatry*, **2018**, 2, 183-204	3.8	25
23	A Bayesian Account of Psychopathy: A Model of Lacks Remorse and Self-Aggrandizing. *Computational Psychiatry*, **2018**, 2, 92-140	3.8	6

22	The Anatomy of Inference: Generative Models and Brain Structure. *Frontiers in Computational Neuroscience*, **2018**, 12, 90	3.5	78
21	Precision and False Perceptual Inference. *Frontiers in Integrative Neuroscience*, **2018**, 12, 39	3.2	28
20	Deep temporal models and active inference. *Neuroscience and Biobehavioral Reviews*, **2017**, 77, 388-402	9	98
19	The graphical brain: Belief propagation and active inference. *Network Neuroscience*, **2017**, 1, 381-414	5.6	163
18	The active construction of the visual world. *Neuropsychologia*, **2017**, 104, 92-101	3.2	52
17	Uncertainty, epistemics and active inference. *Journal of the Royal Society Interface*, **2017**, 14,	4.1	98
16	Working memory, attention, and salience in active inference. *Scientific Reports*, **2017**, 7, 14678	4.9	105
15	Testing and tracking in the UK: A dynamic causal modelling study. *Wellcome Open Research*,5, 144	4.8	8
14	Deeply Felt Affect: The Emergence of Valence in Deep Active Inference		13
13	Deep Active Inference and Scene Construction		1
12	Biological Self-organisation and Markov blankets		11
11	Social intelligence model with multiple internal models		2
10	Generalised free energy and active inference: can the future cause the past?		8
9	In the Body's Eye: The Computational Anatomy of Interoceptive Inference		39
8	An active inference approach to modeling structure learning: concept learning as an example case		6
7	Simulating emotions: An active inference model of emotional state inference and emotion concept learning		4
6	A Bayesian account of generalist and specialist formation under the Active Inference framework		3
5	Neurocomputational mechanisms underlying emotional awareness: insights afforded by deep active inference and their potential clinical relevance		5

List of Publications

4	Active inference, stressors, and psychological trauma: A neuroethological model of (mal)adaptive explore-exploit dynamics in ecological context		1
3	Second waves, social distancing, and the spread of COVID-19 across the USA. *Wellcome Open Research*,5, 103	4.8	2
2	Testing and tracking in the UK: A dynamic causal modelling study. *Wellcome Open Research*,5, 144	4.8	3
1	The Predictive Brain Must Have a Limitation in Short-Term Memory Capacity. *Current Directions in Psychological Science*,096372142110299	6.5	2