

William Penny

List of Publications by Year in descending order

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Version: 2024-02-01

95
papers

14,963
citations

57631

44
h-index

45213

90
g-index

100
all docs

100
docs citations

100
times ranked

11509
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic causal modelling. <i>NeuroImage</i> , 2003, 19, 1273-1302.	2.1	3,997
2	Bayesian model selection for group studies. <i>NeuroImage</i> , 2009, 46, 1004-1017.	2.1	1,253
3	Comparing dynamic causal models. <i>NeuroImage</i> , 2004, 22, 1157-1172.	2.1	809
4	Variational free energy and the Laplace approximation. <i>NeuroImage</i> , 2007, 34, 220-234.	2.1	737
5	Ten simple rules for dynamic causal modeling. <i>NeuroImage</i> , 2010, 49, 3099-3109.	2.1	712
6	Comparing Families of Dynamic Causal Models. <i>PLoS Computational Biology</i> , 2010, 6, e1000709.	1.5	606
7	Classical and Bayesian Inference in Neuroimaging: Theory. <i>NeuroImage</i> , 2002, 16, 465-483.	2.1	537
8	EEG and MEG Data Analysis in SPM8. <i>Computational Intelligence and Neuroscience</i> , 2011, 2011, 1-32.	1.1	500
9	Comparing Dynamic Causal Models using AIC, BIC and Free Energy. <i>NeuroImage</i> , 2012, 59, 319-330.	2.1	306
10	Brain oscillations and memory. <i>Current Opinion in Neurobiology</i> , 2010, 20, 143-149.	2.0	289
11	Post hoc Bayesian model selection. <i>NeuroImage</i> , 2011, 56, 2089-2099.	2.1	222
12	Information theory, novelty and hippocampal responses: unpredicted or unpredictable?. <i>Neural Networks</i> , 2005, 18, 225-230.	3.3	221
13	Testing for nested oscillation. <i>Journal of Neuroscience Methods</i> , 2008, 174, 50-61.	1.3	216
14	Posterior probability maps and SPMs. <i>NeuroImage</i> , 2003, 19, 1240-1249.	2.1	206
15	New approaches for exploring anatomical and functional connectivity in the human brain. <i>Biological Psychiatry</i> , 2004, 56, 613-619.	0.7	206
16	Dynamic causal models of neural system dynamics: current state and future extensions. <i>Journal of Biosciences</i> , 2007, 32, 129-144.	0.5	201
17	Variational Bayesian inference for fMRI time series. <i>NeuroImage</i> , 2003, 19, 727-741.	2.1	192
18	Theta-Coupled Periodic Replay in Working Memory. <i>Current Biology</i> , 2010, 20, 606-612.	1.8	183

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19	Generalised filtering and stochastic DCM for fMRI. <i>NeuroImage</i> , 2011, 58, 442-457.	2.1	177
20	Two Distinct Neural Mechanisms for Category-selective Responses. <i>Cerebral Cortex</i> , 2006, 16, 437-445.	1.6	174
21	Bayesian decoding of brain images. <i>NeuroImage</i> , 2008, 39, 181-205.	2.1	171
22	Dissecting psychiatric spectrum disorders by generative embedding. <i>NeuroImage: Clinical</i> , 2014, 4, 98-111.	1.4	150
23	Neural Networks in Clinical Medicine. <i>Medical Decision Making</i> , 1996, 16, 386-398.	1.2	145
24	Interhemispheric Integration of Visual Processing during Task-Driven Lateralization. <i>Journal of Neuroscience</i> , 2007, 27, 3512-3522.	1.7	143
25	Variational Bayes for generalized autoregressive models. <i>IEEE Transactions on Signal Processing</i> , 2002, 50, 2245-2257.	3.2	124
26	Behavioral Modeling of Human Choices Reveals Dissociable Effects of Physical Effort and Temporal Delay on Reward Devaluation. <i>PLoS Computational Biology</i> , 2015, 11, e1004116.	1.5	104
27	Biophysical models of fMRI responses. <i>Current Opinion in Neurobiology</i> , 2004, 14, 629-635.	2.0	99
28	Cognitive Tasks for Driving a Brain-Computer Interfacing System: A Pilot Study. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2004, 12, 48-54.	2.7	96
29	Estimating the transfer function from neuronal activity to BOLD using simultaneous EEG-fMRI. <i>NeuroImage</i> , 2010, 49, 1496-1509.	2.1	95
30	Oscillatory activity in the pedunculopontine area of patients with Parkinson's disease. <i>Experimental Neurology</i> , 2008, 211, 59-66.	2.0	93
31	Replay of Very Early Encoding Representations during Recollection. <i>Journal of Neuroscience</i> , 2014, 34, 242-248.	1.7	93
32	Effective Connectivity and Intersubject Variability: Using a Multisubject Network to Test Differences and Commonalities. <i>NeuroImage</i> , 2002, 17, 1459-1469.	2.1	92
33	Event-related brain dynamics. <i>Trends in Neurosciences</i> , 2002, 25, 387-389.	4.2	86
34	Bayesian model selection maps for group studies. <i>NeuroImage</i> , 2010, 49, 217-224.	2.1	78
35	Causal evidence that intrinsic beta-frequency is relevant for enhanced signal propagation in the motor system as shown through rhythmic TMS. <i>NeuroImage</i> , 2016, 126, 120-130.	2.1	75
36	Dynamic Causal Models for phase coupling. <i>Journal of Neuroscience Methods</i> , 2009, 183, 19-30.	1.3	71

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37	Mixtures of general linear models for functional neuroimaging. IEEE Transactions on Medical Imaging, 2003, 22, 504-514.	5.4	69
38	Diffusion-based spatial priors for imaging. NeuroImage, 2007, 38, 677-695.	2.1	65
39	Post-hoc selection of dynamic causal models. Journal of Neuroscience Methods, 2012, 208, 66-78.	1.3	65
40	Bayesian comparison of spatially regularised general linear models. Human Brain Mapping, 2007, 28, 275-293.	1.9	62
41	Forward and Backward Inference in Spatial Cognition. PLoS Computational Biology, 2013, 9, e1003383.	1.5	61
42	Bayesian population receptive field modelling. NeuroImage, 2018, 180, 173-187.	2.1	56
43	Age-related changes in causal interactions between cortical motor regions during hand grip. NeuroImage, 2012, 59, 3398-3405.	2.1	54
44	Investigating the Functional Role of Callosal Connections with Dynamic Causal Models. Annals of the New York Academy of Sciences, 2005, 1064, 16-36.	1.8	50
45	Efficient gradient computation for dynamical models. NeuroImage, 2014, 98, 521-527.	2.1	48
46	Auditory training changes temporal lobe connectivity in â€˜Wernickeâ€™s aphasiaâ€™: a randomised trial. Journal of Neurology, Neurosurgery and Psychiatry, 2017, 88, 586-594.	0.9	47
47	The Role of Dopamine in Temporal Uncertainty. Journal of Cognitive Neuroscience, 2016, 28, 96-110.	1.1	44
48	Gradient-based MCMC samplers for dynamic causal modelling. NeuroImage, 2016, 125, 1107-1118.	2.1	43
49	Diffusion-based spatial priors for functional magnetic resonance images. NeuroImage, 2008, 41, 408-423.	2.1	41
50	Reading therapy strengthens top-down connectivity in patients with pure alexia. Brain, 2013, 136, 2579-2591.	3.7	41
51	Dynamic causal modelling for functional near-infrared spectroscopy. NeuroImage, 2015, 111, 338-349.	2.1	41
52	The problem of low variance voxels in statistical parametric mapping; a new hat avoids a â€˜haircutâ€™. NeuroImage, 2012, 59, 2131-2141.	2.1	38
53	Gradient-free MCMC methods for dynamic causal modelling. NeuroImage, 2015, 112, 375-381.	2.1	38
54	Time scales of representation in the human brain: weighing past information to predict future events. Frontiers in Human Neuroscience, 2011, 5, 37.	1.0	36

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55	Changes in Auditory Feedback Connections Determine the Severity of Speech Processing Deficits after Stroke. <i>Journal of Neuroscience</i> , 2012, 32, 4260-4270.	1.7	35
56	mpdcm: A toolbox for massively parallel dynamic causal modeling. <i>Journal of Neuroscience Methods</i> , 2016, 257, 7-16.	1.3	35
57	Identification of degenerate neuronal systems based on intersubject variability. <i>NeuroImage</i> , 2006, 30, 885-890.	2.1	32
58	Decoding oscillatory representations and mechanisms in memory. <i>Neuropsychologia</i> , 2013, 51, 772-780.	0.7	32
59	Dynamics of Cortical Degeneration Over a Decade in Huntington's Disease. <i>Biological Psychiatry</i> , 2021, 89, 807-816.	0.7	32
60	Integrated Bayesian models of learning and decision making for saccadic eye movements. <i>Neural Networks</i> , 2008, 21, 1247-1260.	3.3	31
61	A general Bayesian treatment for MEG source reconstruction incorporating lead field uncertainty. <i>NeuroImage</i> , 2012, 60, 1194-1204.	2.1	31
62	Dynamic causal modelling on infant fNIRS data: A validation study on a simultaneously recorded fNIRS-fMRI dataset. <i>NeuroImage</i> , 2018, 175, 413-424.	2.1	30
63	Prefrontal Dynamics Associated with Efficient Detours and Shortcuts: A Combined Functional Magnetic Resonance Imaging and Magnetoencephalography Study. <i>Journal of Cognitive Neuroscience</i> , 2019, 31, 1227-1247.	1.1	28
64	Bayesian Comparison of Neurovascular Coupling Models Using EEG-fMRI. <i>PLoS Computational Biology</i> , 2011, 7, e1002070.	1.5	26
65	Robust Bayesian general linear models. <i>NeuroImage</i> , 2007, 36, 661-671.	2.1	24
66	Multivariate dynamical modelling of structural change during development. <i>NeuroImage</i> , 2017, 147, 746-762.	2.1	22
67	Modeling Brain Responses. <i>International Review of Neurobiology</i> , 2005, 66, 89-124.	0.9	21
68	Transcranial electrical brain stimulation modulates neuronal tuning curves in perception of numerosity and duration. <i>NeuroImage</i> , 2014, 102, 451-457.	2.1	21
69	Bayesian Models of Brain and Behaviour. , 2012, 2012, 1-19.		19
70	Graph-partitioned spatial priors for functional magnetic resonance images. <i>NeuroImage</i> , 2008, 43, 694-707.	2.1	18
71	Backtracking during navigation is correlated with enhanced anterior cingulate activity and suppression of alpha oscillations and the "default-mode" network. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2019, 286, 20191016.	1.2	17
72	Dynamic Causal Modeling of Preclinical Autosomal-Dominant Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2018, 65, 697-711.	1.2	15

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73	Annealed Importance Sampling for Neural Mass Models. PLoS Computational Biology, 2016, 12, e1004797.	1.5	13
74	Two approaches to repetition suppression. Human Brain Mapping, 2006, 27, 411-416.	1.9	12
75	Neural Network Modeling of the Level of Observation Decision in an Acute Psychiatric Ward. Journal of Biomedical Informatics, 1997, 30, 1-17.	0.7	11
76	Working Memory Replay Prioritizes Weakly Attended Events. ENeuro, 2017, 4, ENEURO.0171-17.2017.	0.9	11
77	Does function fit structure? A ground truth for non-invasive neuroimaging. NeuroImage, 2014, 94, 89-95.	2.1	8
78	Objective Bayesian fMRI analysis—a pilot study in different clinical environments. Frontiers in Neuroscience, 2015, 9, 168.	1.4	8
79	Cortical surface reconstruction based on MEG data and spherical harmonics. , 2013, 2013, 6449-52.		7
80	Population Level Inference for Multivariate MEG Analysis. PLoS ONE, 2013, 8, e71305.	1.1	7
81	Estimating neural response functions from fMRI. Frontiers in Neuroinformatics, 2014, 8, 48.	1.3	7
82	A Dynamic Bayesian Model of Homeostatic Control. Lecture Notes in Computer Science, 2014, , 60-69.	1.0	7
83	How do neural processes give rise to cognition? Simultaneously predicting brain and behavior with a dynamic model of visual working memory.. Psychological Review, 2021, 128, 362-395.	2.7	6
84	Simultaneous Localisation and Planning. , 2014, , .		5
85	Impact of Feedback on Three Phases of Performance Monitoring. Experimental Psychology, 2014, 61, 224-233.	0.3	5
86	Neural networks: friends or foes?. Sensor Review, 1997, 17, 64-70.	1.0	4
87	How Does iReadMore Therapy Change the Reading Network of Patients with Central Alexia?. Journal of Neuroscience, 2019, 39, 5719-5727.	1.7	4
88	An introduction to thermodynamic integration and application to dynamic causal models. Cognitive Neurodynamics, 2022, 16, 1-15.	2.3	4
89	Self-Associations Influence Task-Performance through Bayesian Inference. Frontiers in Human Neuroscience, 2013, 7, 490.	1.0	3
90	Retrospective Inference as a Form of Bounded Rationality, and Its Beneficial Influence on Learning. Frontiers in Artificial Intelligence, 2020, 3, 2.	2.0	3

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91	Learning words in space and time: Contrasting models of the suspicious coincidence effect. <i>Cognition</i> , 2021, 210, 104576.	1.1	3
92	Multitask learning over shared subspaces. <i>PLoS Computational Biology</i> , 2021, 17, e1009092.	1.5	2
93	Pupil dilation indexes automatic and dynamic inference about the precision of stimulus distributions. <i>Journal of Mathematical Psychology</i> , 2021, 101, 102503.	1.0	1
94	Modelling Effective Connectivity with Dynamic Causal Models. , 2014, , 47-58.		0
95	E01â€...Modelling the trajectory of cortical atrophy in huntingtonâ€™s disease. , 2018, , .		0