William Penny

List of Publications by Year
in descending order

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	An introduction to thermodynamic integration and application to dynamic causal models. Cognitive Neurodynamics, 2022, 16, 1-15.	2.3	4
2	Dynamics of Cortical Degeneration Over a Decade in Huntington's Disease. Biological Psychiatry, 2021, 89, 807-816.	0.7	32
3	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
4	Pupil dilation indexes automatic and dynamic inference about the precision of stimulus distributions. Journal of Mathematical Psychology, 2021, 101, 102503.	1.0	1
5	Learning words in space and time: Contrasting models of the suspicious coincidence effect. Cognition, 2021, 210, 104576.	1.1	3
6	Multitask learning over shared subspaces. PLoS Computational Biology, 2021, 17, e1009092.	1.5	2
7	Retrospective Inference as a Form of Bounded Rationality, and Its Beneficial Influence on Learning. Frontiers in Artificial Intelligence, 2020, 3, 2.	2.0	3
8	Backtracking during navigation is correlated with enhanced anterior cingulate activity and suppression of alpha oscillations and the 'default-mode' network. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20191016.	1.2	17
9	How Does iReadMore Therapy Change the Reading Network of Patients with Central Alexia?. Journal of Neuroscience, 2019, 39, 5719-5727.	1.7	4
10	Prefrontal Dynamics Associated with Efficient Detours and Shortcuts: A Combined Functional Magnetic Resonance Imaging and Magnetoencenphalography Study. Journal of Cognitive Neuroscience, 2019, 31, 1227-1247.	1.1	28
11	Dynamic causal modelling on infant fNIRS data: A validation study on a simultaneously recorded fNIRS-fMRI dataset. NeuroImage, 2018, 175, 413-424.	2.1	30
12	Dynamic Causal Modeling of Preclinical Autosomal-Dominant Alzheimer's Disease. Journal of Alzheimer's Disease, 2018, 65, 697-711.	1.2	15
13	Bayesian population receptive field modelling. NeuroImage, 2018, 180, 173-187.	2.1	56
14	E01…Modelling the trajectory of cortical atrophy in huntington's disease. , 2018, , .		0
15	Auditory training changes temporal lobe connectivity in 'Wernicke's aphasia': a randomised trial. Journal of Neurology, Neurosurgery and Psychiatry, 2017, 88, 586-594.	0.9	47
16	Multivariate dynamical modelling of structural change during development. NeuroImage, 2017, 147, 746-762.	2.1	22
17	Working Memory Replay Prioritizes Weakly Attended Events. ENeuro, 2017, 4, ENEURO.0171-17.2017.	0.9	11
18	Annealed Importance Sampling for Neural Mass Models. PLoS Computational Biology, 2016, 12, e1004797.	1.5	13

#	Article	IF	Citations
19	Causal evidence that intrinsic beta-frequency is relevant for enhanced signal propagation in the motor system as shown through rhythmic TMS. NeuroImage, 2016, 126, 120-130.	2.1	75
20	Gradient-based MCMC samplers for dynamic causal modelling. NeuroImage, 2016, 125, 1107-1118.	2.1	43
21	mpdcm: A toolbox for massively parallel dynamic causal modeling. Journal of Neuroscience Methods, 2016, 257, 7-16.	1.3	35
22	The Role of Dopamine in Temporal Uncertainty. Journal of Cognitive Neuroscience, 2016, 28, 96-110.	1.1	44
23	Objective Bayesian fMRI analysisâ¢â¬â€a pilot study in different clinical environments. Frontiers in Neuroscience, 2015, 9, 168.	1.4	8
24	Dynamic causal modelling for functional near-infrared spectroscopy. NeuroImage, 2015, 111, 338-349.	2.1	41
25	Behavioral Modeling of Human Choices Reveals Dissociable Effects of Physical Effort and Temporal Delay on Reward Devaluation. PLoS Computational Biology, 2015, 11, e1004116.	1.5	104
26	Gradient-free MCMC methods for dynamic causal modelling. NeuroImage, 2015, 112, 375-381.	2.1	38
27	Estimating neural response functions from fMRI. Frontiers in Neuroinformatics, 2014, 8, 48.	1.3	7
28	Replay of Very Early Encoding Representations during Recollection. Journal of Neuroscience, 2014, 34, 242-248.	1.7	93
29	Simultaneous Localisation and Planning. , 2014, , .		5
30	Transcranial electrical brain stimulation modulates neuronal tuning curves in perception of numerosity and duration. NeuroImage, 2014, 102, 451-457.	2.1	21
31	Modelling Effective Connectivity with Dynamic Causal Models. , 2014, , 47-58.		0
32	Efficient gradient computation for dynamical models. NeuroImage, 2014, 98, 521-527.	2.1	48
33	Does function fit structure? A ground truth for non-invasive neuroimaging. NeuroImage, 2014, 94, 89-95.	2.1	8
34	Dissecting psychiatric spectrum disorders by generative embedding. NeuroImage: Clinical, 2014, 4, 98-111.	1.4	150
35	Impact of Feedback on Three Phases of Performance Monitoring. Experimental Psychology, 2014, 61, 224-233.	0.3	5
36	A Dynamic Bayesian Model of Homeostatic Control. Lecture Notes in Computer Science, 2014, , 60-69.	1.0	7

#	Article	IF	Citations
37	Decoding oscillatory representations and mechanisms in memory. Neuropsychologia, 2013, 51, 772-780.	0.7	32
38	Reading therapy strengthens top–down connectivity in patients with pure alexia. Brain, 2013, 136, 2579-2591.	3.7	41
39	Forward and Backward Inference in Spatial Cognition. PLoS Computational Biology, 2013, 9, e1003383.	1.5	61
40	Cortical surface reconstruction based on MEG data and spherical harmonics. , 2013, 2013, 6449-52.		7
41	Population Level Inference for Multivariate MEG Analysis. PLoS ONE, 2013, 8, e71305.	1.1	7
42	Self-Associations Influence Task-Performance through Bayesian Inference. Frontiers in Human Neuroscience, 2013, 7, 490.	1.0	3
43	Changes in Auditory Feedback Connections Determine the Severity of Speech Processing Deficits after Stroke. Journal of Neuroscience, 2012, 32, 4260-4270.	1.7	35
44	Comparing Dynamic Causal Models using AIC, BIC and Free Energy. NeuroImage, 2012, 59, 319-330.	2.1	306
45	The problem of low variance voxels in statistical parametric mapping; a new hat avoids a 'haircut'. NeuroImage, 2012, 59, 2131-2141.	2.1	38
46	Age-related changes in causal interactions between cortical motor regions during hand grip. NeuroImage, 2012, 59, 3398-3405.	2.1	54
47	A general Bayesian treatment for MEG source reconstruction incorporating lead field uncertainty. NeuroImage, 2012, 60, 1194-1204.	2.1	31
48	Post-hoc selection of dynamic causal models. Journal of Neuroscience Methods, 2012, 208, 66-78.	1.3	65
49	Bayesian Models of Brain and Behaviour. , 2012, 2012, 1-19.		19
50	Generalised filtering and stochastic DCM for fMRI. NeuroImage, 2011, 58, 442-457.	2.1	177
51	Post hoc Bayesian model selection. NeuroImage, 2011, 56, 2089-2099.	2.1	222
52	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
53	EEG and MEG Data Analysis in SPM8. Computational Intelligence and Neuroscience, 2011, 2011, 1-32.	1.1	500
54	Bayesian Comparison of Neurovascular Coupling Models Using EEG-fMRI. PLoS Computational Biology, 2011, 7, e1002070.	1.5	26

#	Article	IF	Citations
55	Brain oscillations and memory. Current Opinion in Neurobiology, 2010, 20, 143-149.	2.0	289
56	Theta-Coupled Periodic Replay in Working Memory. Current Biology, 2010, 20, 606-612.	1.8	183
57	Comparing Families of Dynamic Causal Models. PLoS Computational Biology, 2010, 6, e1000709.	1.5	606
58	Bayesian model selection maps for group studies. NeuroImage, 2010, 49, 217-224.	2.1	78
59	Estimating the transfer function from neuronal activity to BOLD using simultaneous EEG-fMRI. NeuroImage, 2010, 49, 1496-1509.	2.1	95
60	Ten simple rules for dynamic causal modeling. NeuroImage, 2010, 49, 3099-3109.	2.1	712
61	Dynamic Causal Models for phase coupling. Journal of Neuroscience Methods, 2009, 183, 19-30.	1.3	71
62	Bayesian model selection for group studies. NeuroImage, 2009, 46, 1004-1017.	2.1	1,253
63	Testing for nested oscillation. Journal of Neuroscience Methods, 2008, 174, 50-61.	1.3	216
64	Integrated Bayesian models of learning and decision making for saccadic eye movements. Neural Networks, 2008, 21, 1247-1260.	3.3	31
65	Oscillatory activity in the pedunculopontine area of patients with Parkinson's disease. Experimental Neurology, 2008, 211, 59-66.	2.0	93
66	Bayesian decoding of brain images. NeuroImage, 2008, 39, 181-205.	2.1	171
67	Diffusion-based spatial priors for functional magnetic resonance images. NeuroImage, 2008, 41, 408-423.	2.1	41
68	Graph-partitioned spatial priors for functional magnetic resonance images. NeuroImage, 2008, 43, 694-707.	2.1	18
69	Interhemispheric Integration of Visual Processing during Task-Driven Lateralization. Journal of Neuroscience, 2007, 27, 3512-3522.	1.7	143
70	Robust Bayesian general linear models. NeuroImage, 2007, 36, 661-671.	2.1	24
71	Diffusion-based spatial priors for imaging. NeuroImage, 2007, 38, 677-695.	2.1	65
72	Variational free energy and the Laplace approximation. NeuroImage, 2007, 34, 220-234.	2.1	737

#	ARTICLE	IF	CITATIONS
73	Bayesian comparison of spatially regularised general linear models. Human Brain Mapping, 2007, 28, 275-293.	1.9	62
74	Dynamic causal models of neural system dynamics: current state and future extensions. Journal of Biosciences, 2007, 32, 129-144.	0.5	201
75	Identification of degenerate neuronal systems based on intersubject variability. NeuroImage, 2006, 30, 885-890.	2.1	32
76	Two approaches to repetition suppression. Human Brain Mapping, 2006, 27, 411-416.	1.9	12
77	Two Distinct Neural Mechanisms for Category-selective Responses. Cerebral Cortex, 2006, 16, 437-445.	1.6	174
78	Information theory, novelty and hippocampal responses: unpredicted or unpredictable?. Neural Networks, 2005, 18, 225-230.	3.3	221
79	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
80	Modeling Brain Responses. International Review of Neurobiology, 2005, 66, 89-124.	0.9	21
81	Biophysical models of fMRI responses. Current Opinion in Neurobiology, 2004, 14, 629-635.	2.0	99
82	Cognitive Tasks for Driving a Brain-Computer Interfacing System: A Pilot Study. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2004, 12, 48-54.	2.7	96
83	New approaches for exploring anatomical and functional connectivity in the human brain. Biological Psychiatry, 2004, 56, 613-619.	0.7	206
84	Comparing dynamic causal models. NeuroImage, 2004, 22, 1157-1172.	2.1	809
85	Variational Bayesian inference for fMRI time series. NeuroImage, 2003, 19, 727-741.	2.1	192
86	Posterior probability maps and SPMs. NeuroImage, 2003, 19, 1240-1249.	2.1	206
87	Dynamic causal modelling. NeuroImage, 2003, 19, 1273-1302.	2.1	3,997
88	Mixtures of general linear models for functional neuroimaging. IEEE Transactions on Medical Imaging, 2003, 22, 504-514.	5.4	69
89	Variational Bayes for generalized autoregressive models. IEEE Transactions on Signal Processing, 2002, 50, 2245-2257.	3.2	124
90	Classical and Bayesian Inference in Neuroimaging: Theory. NeuroImage, 2002, 16, 465-483.	2.1	537

#	Article	IF	Citations
91	Effective Connectivity and Intersubject Variability: Using a Multisubject Network to Test Differences and Commonalities. NeuroImage, 2002, 17, 1459-1469.	2.1	92
92	Event-related brain dynamics. Trends in Neurosciences, 2002, 25, 387-389.	4.2	86
93	Neural networks: friends or foes?. Sensor Review, 1997, 17, 64-70.	1.0	4
94	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
95	Neural Networks in Clinical Medicine. Medical Decision Making, 1996, 16, 386-398.	1.2	145