Jérémie Mattout

List of Publications by Year
in descending order

72 papers	6,172 citations	147566 31 h-index	106150 65 g-index
81 all docs	81 docs citations	81 times ranked	5623 citing authors

#	Article	IF	Citations
1	Variational free energy and the Laplace approximation. NeuroImage, 2007, 34, 220-234.	2.1	737
2	Dynamic causal modeling of evoked responses in EEG and MEG. NeuroImage, 2006, 30, 1255-1272.	2.1	563
3	Action understanding and active inference. Biological Cybernetics, 2011, 104, 137-160.	0.6	550
4	Multiple sparse priors for the M/EEG inverse problem. NeuroImage, 2008, 39, 1104-1120.	2.1	548
5	EEG and MEG Data Analysis in SPM8. Computational Intelligence and Neuroscience, 2011, 2011, 1-32.	1.1	500
6	Automatic Analysis of Single-Channel Sleep EEG: Validation in Healthy Individuals. Sleep, 2007, 30, 1587-1595.	0.6	228
7	Impaired pitch perception and memory in congenital amusia: the deficit starts in the auditory cortex. Brain, 2013, 136, 1639-1661.	3.7	213
8	Symmetrical event-related EEG/fMRI information fusion in a variational Bayesian framework. NeuroImage, 2007, 36, 69-87.	2.1	189
9	Hemodynamic correlates of EEG: A heuristic. NeuroImage, 2005, 28, 280-286.	2.1	188
10	MEG source localization under multiple constraints: An extended Bayesian framework. NeuroImage, 2006, 30, 753-767.	2.1	174
11	An empirical Bayesian solution to the source reconstruction problem in EEG. NeuroImage, 2005, 24, 997-1011.	2.1	171
12	Hearing Faces: How the Infant Brain Matches the Face It Sees with the Speech It Hears. Journal of Cognitive Neuroscience, 2008, 21, 905-921.	1.1	125
13	Canonical Source Reconstruction for MEG. Computational Intelligence and Neuroscience, 2007, 2007, 1-10.	1.1	121
14	Disentangling motor execution from motor imagery with the phantom limb. Brain, 2012, 135, 582-595.	3.7	116
15	Selecting forward models for MEG source-reconstruction using model-evidence. NeuroImage, 2009, 46, 168-176.	2.1	101
16	A Parametric Empirical Bayesian framework for fMRIâ€€constrained MEG/EEG source reconstruction. Human Brain Mapping, 2010, 31, 1512-1531.	1.9	101
17	A robust sensor-selection method for P300 brainâ€"computer interfaces. Journal of Neural Engineering, 2011, 8, 016001.	1.8	87
18	Bayesian estimation of evoked and induced responses. Human Brain Mapping, 2006, 27, 722-735.	1.9	86

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19	Objective and Subjective Evaluation of Online Error Correction during P300-Based Spelling. Advances in Human-Computer Interaction, 2012, 2012, 1-13.	1.8	81
20	The impact of MEG source reconstruction method on source-space connectivity estimation: A comparison between minimum-norm solution and beamforming. NeuroImage, 2017, 156, 29-42.	2.1	79
21	Tactile hypersensitivity and GABA concentration in the sensorimotor cortex of adults with autism. Autism Research, 2019, 12, 562-575.	2.1	65
22	Inferring hand movement kinematics from MEG, EEG and intracranial EEG: From brain-machine interfaces to motor rehabilitation. Irbm, 2011, 32, 8-18.	3.7	64
23	Bayesian Spatio-Temporal Approach for EEG Source Reconstruction: Conciliating ECD and Distributed Models. IEEE Transactions on Biomedical Engineering, 2006, 53, 503-516.	2.5	63
24	Decision-Making in a Changing World: A Study in Autism Spectrum Disorders. Journal of Autism and Developmental Disorders, 2015, 45, 1603-1613.	1.7	60
25	Altered retrieval of melodic information in congenital amusia: insights from dynamic causal modeling of MEG data. Frontiers in Human Neuroscience, 2015, 9, 20.	1.0	55
26	Population-level inferences for distributed MEG source localization under multiple constraints: Application to face-evoked fields. NeuroImage, 2007, 38, 422-438.	2.1	54
27	Assessing the relevance of fMRI-based prior in the EEG inverse problem: a bayesian model comparison approach. IEEE Transactions on Signal Processing, 2005, 53, 3461-3472.	3.2	50
28	Multivariate source prelocalization (MSP): Use of functionally informed basis functions for better conditioning the MEG inverse problem. NeuroImage, 2005, 26, 356-373.	2.1	49
29	The epistemic and pragmatic value of non-action: a predictive coding perspective on meditation. Current Opinion in Psychology, 2019, 28, 166-171.	2.5	47
30	Implicit learning of predictable sound sequences modulates human brain responses at different levels of the auditory hierarchy. Frontiers in Human Neuroscience, 2015, 9, 505.	1.0	44
31	First results on the GEM operated at low gas pressures. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 419, 423-428.	0.7	41
32	Towards a computational phenomenology of mental action: modelling meta-awareness and attentional control with deep parametric active inference. Neuroscience of Consciousness, 2021, 2021, niab018.	1.4	35
33	BCI in patients with disorders of consciousness: Clinical perspectives. Annals of Physical and Rehabilitation Medicine, 2015, 58, 29-34.	1.1	34
34	On assessing neurofeedback effects: should double-blind replace neurophysiological mechanisms?. Brain, 2017, 140, e63-e63.	3.7	34
35	EEG neurofeedback research: A fertile ground for psychiatry?. L'Encephale, 2019, 45, 245-255.	0.3	33
36	Exploring scoring methods for research studies: Accuracy and variability of visual and automated sleep scoring. Journal of Sleep Research, 2020, 29, e12994.	1.7	31

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37	Data-driven parceling and entropic inference in MEG. NeuroImage, 2006, 30, 160-171.	2.1	29
38	BCI Could Make Old Two-Player Games Even More Fun: A Proof of Concept with "Connect Four". Advances in Human-Computer Interaction, 2012, 2012, 1-8.	1.8	26
39	Automatic analysis of single-channel sleep EEG in a large spectrum of sleep disorders. Journal of Clinical Sleep Medicine, 2021, 17, 393-402.	1.4	26
40	Improving BCI performance through co-adaptation: Applications to the P300-speller. Annals of Physical and Rehabilitation Medicine, 2015, 58, 23-28.	1.1	25
41	Brain-Computer Interfaces: A Neuroscience Paradigm of Social Interaction? A Matter of Perspective. Frontiers in Human Neuroscience, 2012, 6, 114.	1.0	24
42	Impact of Spatial Filters During Sensor Selection in a Visual P300 Brain-Computer Interface. Brain Topography, 2012, 25, 55-63.	0.8	24
43	MEG Connectivity and Power Detections with Minimum Norm Estimates Require Different Regularization Parameters. Computational Intelligence and Neuroscience, 2016, 2016, 1-11.	1.1	24
44	Adaptive training session for a P300 speller brain–computer interface. Journal of Physiology (Paris), 2011, 105, 123-9.	2.1	20
45	Mind the Traps! Design Guidelines for Rigorous BCI Experiments. , 2018, , 613-634.		16
46	Models of Functional Neuroimaging Data. Current Medical Imaging, 2006, 2, 15-34.	0.4	15
47	Neuromagnetic correlates of adaptive plasticity across the hand-face border in human primary somatosensory cortex. Journal of Neurophysiology, 2016, 115, 2095-2104.	0.9	15
48	Empirical Bayes evaluation of fused EEG-MEG source reconstruction: Application to auditory mismatch evoked responses. NeuroImage, 2021, 226, 117468.	2.1	15
49	Neurocomputational Underpinnings of Expected Surprise. Journal of Neuroscience, 2022, 42, 474-486.	1.7	15
50	EEG sensor selection by sparse spatial filtering in P300 speller brain-computer interface. , 2010, 2010, 5379-82.		14
51	Toward a New Application of Real-Time Electrophysiology: Online Optimization of Cognitive Neurosciences Hypothesis Testing. Brain Sciences, 2014, 4, 49-72.	1.1	14
52	Towards Identifying Optimal Biased Feedback for Various User States and Traits in Motor Imagery BCI. IEEE Transactions on Biomedical Engineering, 2022, 69, 1101-1110.	2.5	13
53	Adults with Autism Tend to Undermine the Hidden Environmental Structure: Evidence from a Visual Associative Learning Task. Journal of Autism and Developmental Disorders, 2018, 48, 3061-3074.	1.7	12
54	Estimates of cortical column orientation improve MEG source inversion. NeuroImage, 2020, 216, 116862.	2.1	11

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55	Active SAmpling Protocol (ASAP) to Optimize Individual Neurocognitive Hypothesis Testing: A BCI-Inspired Dynamic Experimental Design. Frontiers in Human Neuroscience, 2016, 10, 347.	1.0	10
56	Active inference as a unifying, generic and adaptive framework for a P300-based BCI. Journal of Neural Engineering, 2020, 17, 016054.	1.8	10
57	A Generic Framework for Adaptive EEG-Based BCI Training and Operation. , 2018, , 595-612.		10
58	A multi-thermogram-based Bayesian model for the determination of the thermal diffusivity of a material. Metrologia, 2016, 53, S1-S9.	0.6	9
59	Localization Estimation Algorithm (LEA): A Supervised Prior-Based Approach for Solving the EEG/MEG Inverse Problem. Lecture Notes in Computer Science, 2003, 18, 536-547.	1.0	9
60	Does function fit structure? A ground truth for non-invasive neuroimaging. NeuroImage, 2014, 94, 89-95.	2.1	8
61	Transfer Learning for the Riemannian Tangent Space: Applications to Brain-Computer Interfaces. , 2021, , .		7
62	EEG artifact correction strategies for online trial-by-trial analysis. Journal of Neural Engineering, 2020, 17, 016035.	1.8	6
63	Les trois cultures de la psychiatrie computationnelle. Annales Medico-Psychologiques, 2021, 179, 63-71.	0.2	5
64	An Impending Paradigm Shift in Motor Imagery Based Brain-Computer Interfaces. Frontiers in Neuroscience, 2021, 15, 824759.	1.4	5
65	Retrospective study of the acute period of locked-in syndrome: Consciousness recovery and communication restoration. Annals of Physical and Rehabilitation Medicine, 2016, 59, e151-e152.	1.1	2
66	Publisher's note to: towards a computational phenomenology of mental action: modelling meta-awareness and attentional control with deep parametric active inference. Neuroscience of Consciousness, 2021, 2021, .	1.4	2
67	Dynamics of Oddball Sound Processing: Trial-by-Trial Modeling of ECoG Signals. Frontiers in Human Neuroscience, 2021, 15, 794654.	1.0	2
68	The hands have it: Hand specific vision of touch enhances touch perception and somatosensory evoked potential. Seeing and Perceiving, 2012, 25, 43.	0.4	1
69	Multivariate Group Effect Analysis in Functional Magnetic Resonance Imaging. Lecture Notes in Computer Science, 2003, 18, 548-559.	1.0	1
70	Maximum entropy on the mean approach for solving the MEG inverse problem. NeuroImage, 2001, 13, 62.	2.1	0
71	REAL-TIME AUTOMATIC MEASUREMENT OF RECORDED SLEEP TIME. Chest, 2007, 132, 649B.	0.4	0
72	Sélection de capteurs pour interfaces cerveau-ordinateur de type P300. Traitement Du Signal, 2010, 27, 515-540.	0.8	0