Sylvain Baillet

List of Publications by Year
in descending order

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143 papers	12,842 citations	71102 41 h-index	29157 104 g-index
167 all docs	167 docs citations	167 times ranked	11285 citing authors

#	Article	IF	Citations
1	New interinstitutional, multimodal presurgical evaluation protocol associated with improved seizure freedom for poorly defined cases of focal epilepsy in children. Journal of Neurosurgery: Pediatrics, 2022, 29, 74-82.	1.3	3
2	Connectomics of human electrophysiology. NeuroImage, 2022, 247, 118788.	4.2	69
3	Stability of spectral estimates in resting-state magnetoencephalography: Recommendations for minimal data duration with neuroanatomical specificity. NeuroImage, 2022, 247, 118823.	4.2	25
4	Supramodality of neural entrainment: Rhythmic visual stimulation causally enhances auditory working memory performance. Science Advances, 2022, 8, eabj9782.	10.3	20
5	Cross-Frequency Brain Network Dynamics Support Pitch Change Detection. Journal of Neuroscience, 2022, 42, 3823-3835.	3.6	3
6	Perceptual filling-in dispels the veridicality problem of conscious perception research. Consciousness and Cognition, 2022, 100, 103316.	1.5	0
7	Forward and Inverse Problems of MEG/EEG. , 2022, , 1464-1471.		0
8	Overnight Ictal Magnetoencephalography. Neurology: Clinical Practice, 2021, 11, e732-e735.	1.6	4
9	MNI SISCOM: an Open-Source Tool for Computing Subtraction Ictal Single-Photon Emission CT Coregistered to MRI. Journal of Digital Imaging, 2021, 34, 357-361.	2.9	4
10	MEG Intersubject Phase Locking of Stimulus-Driven Activity during Naturalistic Speech Listening Correlates with Musical Training. Journal of Neuroscience, 2021, 41, 2713-2722.	3.6	11
11	Case Report: Aperiodic Fluctuations of Neural Activity in the Ictal MEG of a Child With Drug-Resistant Fronto-Temporal Epilepsy. Frontiers in Human Neuroscience, 2021, 15, 646426.	2.0	15
12	The utility of arterial spin labeling in the presurgical evaluation of poorly defined focal epilepsy in children. Journal of Neurosurgery: Pediatrics, 2021, 27, 243-252.	1.3	13
13	Oscillatory Entrainment of the Frequency-following Response in Auditory Cortical and Subcortical Structures. Journal of Neuroscience, 2021, 41, 4073-4087.	3.6	20
14	Neurophysiological Changes Induced by Music-Supported Therapy for Recovering Upper Extremity Function after Stroke: A Case Series. Brain Sciences, 2021, 11, 666.	2.3	6
15	Coupled oscillations enable rapid temporal recalibration to audiovisual asynchrony. Communications Biology, 2021, 4, 559.	4.4	7
16	Magnetoencephalography reveals increased slow-to-fast alpha power ratios in patients with chronic pain. Pain Reports, 2021, 6, e928.	2.7	13
17	Inhibitory effect of tDCS on auditory evoked response: Simultaneous MEG-tDCS reveals causal role of right auditory cortex in pitch learning. NeuroImage, 2021, 233, 117915.	4.2	13
18	Brief segments of neurophysiological activity enable individual differentiation. Nature Communications, 2021, 12, 5713.	12.8	42

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19	Over the rainbow: Guidelines for meaningful use of colour maps in neurophysiology. NeuroImage, 2021, 245, 118628.	4.2	4
20	Tracking the dynamics of perisaccadic visual signals with magnetoencephalography. , 2021, , .		0
21	Spontaneous network activity <35Ââ€‹Hz accounts for variability in stimulus-induced gamma responses. NeuroImage, 2020, 207, 116374.	4.2	17
22	Two Distinct Neural Timescales for Predictive Speech Processing. Neuron, 2020, 105, 385-393.e9.	8.1	134
23	Vascular contributions to 16p11.2 deletion autism syndrome modeled in mice. Nature Neuroscience, 2020, 23, 1090-1101.	14.8	70
24	Biased intelligence: on the subjectivity of digital objectivity. BMJ Health and Care Informatics, 2020, 27, e100146.	3.0	4
25	Individual-patient prediction of meningioma malignancy and survival using the Surveillance, Epidemiology, and End Results database. Npj Digital Medicine, 2020, 3, 12.	10.9	21
26	Induced oscillatory signaling in the beta frequency of top-down pain modulation. Pain Reports, 2020, 5, e806.	2.7	8
27	Prosopagnosia seizure semiology in a 10-year-old boy: a functional neuroimaging study. BMJ Case Reports, 2020, 13, e237228.	0.5	1
28	Musicians at the Cocktail Party: Neural Substrates of Musical Training During Selective Listening in Multispeaker Situations. Cerebral Cortex, 2019, 29, 3253-3265.	2.9	37
29	Older adults exhibit a more pronounced modulation of beta oscillations when performing sustained and dynamic handgrips. NeuroImage, 2019, 201, 116037.	4.2	29
30	Tagged MEG measures binocular rivalry in a cortical network that predicts alternation rate. PLoS ONE, 2019, 14, e0218529.	2.5	5
31	Functional dissociation of anterior cingulate cortex and intraparietal sulcus in visual working memory. Cortex, 2019, 121, 277-291.	2.4	20
32	Integrated open-source software for multiscale electrophysiology. Scientific Data, 2019, 6, 231.	5.3	18
33	Functional and effective reorganization of the aging brain during unimanual and bimanual hand movements. Human Brain Mapping, 2019, 40, 3027-3040.	3.6	17
34	Neurophysiological Effects Associated With Subliminal Conditioning of Appetite Motivations. Frontiers in Psychology, 2019, 10, 457.	2.1	8
35	Brainstorm Pipeline Analysis of Resting-State Data From the Open MEG Archive. Frontiers in Neuroscience, 2019, 13, 284.	2.8	50
36	MEG/EEG Group Analysis With Brainstorm. Frontiers in Neuroscience, 2019, 13, 76.	2.8	135

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37	A thalamocortical pathway for fast rerouting of tactile information to occipital cortex in congenital blindness. Nature Communications, 2019, 10, 5154.	12.8	33
38	Interocular Conflict Predicts Individual Differ-ences in Binocular Rivalry. Journal of Vision, 2019, 19, 131.	0.3	0
39	Phase-amplitude coupling and epileptogenesis in an animal model of mesial temporal lobe epilepsy. Neurobiology of Disease, 2018, 114, 111-119.	4.4	42
40	IFCN-endorsed practical guidelines for clinical magnetoencephalography (MEG). Clinical Neurophysiology, 2018, 129, 1720-1747.	1.5	111
41	Driving working memory with frequencyâ€tuned noninvasive brain stimulation. Annals of the New York Academy of Sciences, 2018, 1423, 126-137.	3.8	23
42	Interocular interaction of contrast and luminance signals in human primary visual cortex. NeuroImage, 2018, 167, 23-30.	4.2	14
43	Commentary: Evaluation of Phase-Amplitude Coupling in Resting State Magnetoencephalographic Signals: Effect of Surrogates and Evaluation Approach. Frontiers in Computational Neuroscience, 2018, 12, 26.	2.1	1
44	Reply to â€œClinical practice guidelines or clinical research guidelines?â€• Clinical Neurophysiology, 2018, 129, 2056-2057.	1.5	0
45	MEG-BIDS, the brain imaging data structure extended to magnetoencephalography. Scientific Data, 2018, 5, 180110.	5.3	101
46	Imaging of neural oscillations with embedded inferential and group prevalence statistics. PLoS Computational Biology, 2018, 14, e1005990.	3.2	8
47	Magnetoencephalography for brain electrophysiology and imaging. Nature Neuroscience, 2017, 20, 327-339.	14.8	580
48	The Sources of Sequential Modulations of Control Processes in Arithmetic Strategies: A Magnetoencephalography Study. Journal of Cognitive Neuroscience, 2017, 29, 1033-1043.	2.3	14
49	Selective Entrainment of Theta Oscillations in the Dorsal Stream Causally Enhances Auditory Working Memory Performance. Neuron, 2017, 94, 193-206.e5.	8.1	167
50	Motor origin of temporal predictions in auditory attention. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E8913-E8921.	7.1	229
51	Time-resolved phase-amplitude coupling in neural oscillations. NeuroImage, 2017, 159, 270-279.	4.2	57
52	High-resolution retinotopic maps estimated with magnetoencephalography. NeuroImage, 2017, 145, 107-117.	4.2	30
53	Reversing the Standard Neural Signature of the Wordâ€“Nonword Distinction. Journal of Cognitive Neuroscience, 2017, 29, 79-94.	2.3	23
54	Neural Correlates of Early Sound Encoding and their Relationship to Speech-in-Noise Perception. Frontiers in Neuroscience, 2017, 11, 479.	2.8	67

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55	Pre-target neural oscillations predict variability in the detection of small pitch changes. PLoS ONE, 2017, 12, e0177836.	2.5	16
56	Longitudinal Changes in Depressive Circuitry in Response to Neuromodulation Therapy. Frontiers in Neural Circuits, 2016, 10, 50.	2.8	55
57	A multivariate method for estimating cross-frequency neuronal interactions and correcting linear mixing in MEG data, using canonical correlations. Journal of Neuroscience Methods, 2016, 271, 169-181.	2.5	17
58	Cortical contributions to the auditory frequency-following response revealed by MEG. Nature Communications, 2016, 7, 11070.	12.8	310
59	OMEGA: The Open MEG Archive. NeuroImage, 2016, 124, 1182-1187.	4.2	96
60	Cyberinfrastructure for Open Science at the Montreal Neurological Institute. Frontiers in Neuroinformatics, 2016, 10, 53.	2.5	28
61	Region-specific reduction of auditory sensory gating in older adults. Brain and Cognition, 2015, 101, 64-72.	1.8	26
62	Age-Related Reduced Somatosensory Gating Is Associated with Altered Alpha Frequency Desynchronization. Neural Plasticity, 2015, 2015, 1-9.	2.2	37
63	Beamformer-based imaging of phase-amplitude coupling using electromagnetic brain activity. , 2015, 2015, 7558-61.		2
64	The brain's resting-state activity is shaped by synchronized cross-frequency coupling of neural oscillations. NeuroImage, 2015, 111, 26-35.	4.2	174
65	Effects of aging on the neuromagnetic mismatch detection to speech sounds. Biological Psychology, 2015, 104, 48-55.	2.2	18
66	Short-term ocular dominance changes in human V1.. Journal of Vision, 2015, 15, 378.	0.3	1
67	MEG in the Presurgical Epilepsy Evaluation. , 2015, , 195-212.		0
68	Forward and Inverse Problems of MEG/EEG. , 2015, , 1226-1233.		3
69	Rapid Amygdala Responses during Trace Fear Conditioning without Awareness. PLoS ONE, 2014, 9, e96803.	2.5	26
70	Forward and Inverse Problems of MEG/EEG. , 2014, , 1-8.		5
71	Targeted reinforcement of neural oscillatory activity with real-time neuroimaging feedback. NeuroImage, 2014, 88, 54-60.	4.2	35
72	Dynamics of dichoptic masking in the primary visual cortex. BMC Neuroscience, 2014, 15, .	1.9	0

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73	Local and long-range phase-amplitude coupling in a cortical spiking network model. BMC Neuroscience, 2014, 15, .	1.9	0
74	Encoding Cortical Dynamics in Sparse Features. Frontiers in Human Neuroscience, 2014, 8, 338.	2.0	7
75	What MEG can reveal about inference making: The case of if...then sentences. Human Brain Mapping, 2013, 34, 684-697.	3.6	12
76	Effects of aging on neuromagnetic mismatch responses to pitch changes. Neuroscience Letters, 2013, 544, 20-24.	2.1	29
77	Gamma power correlates with clinical response to repetitive transcranial magnetic stimulation (rTMS) for depression. , 2013, , .		0
78	Good practice for conducting and reporting MEG research. NeuroImage, 2013, 65, 349-363.	4.2	604
79	How to Detect Amygdala Activity with Magnetoencephalography using Source Imaging. Journal of Visualized Experiments, 2013, , .	0.3	19
80	Mutual information spectrum for selection of event-related spatial components. Application to eloquent motor cortex mapping. Frontiers in Neuroinformatics, 2013, 7, 53.	2.5	4
81	Brain templates and atlases. NeuroImage, 2012, 62, 911-922.	4.2	461
82	Brainstorm: A User-Friendly Application for MEG/EEG Analysis. Computational Intelligence and Neuroscience, 2011, 2011, 1-13.	1.7	2,564
83	Early ADC changes in motor structures predict outcome of acute stroke better than lesion volume. Journal of Neuroradiology, 2011, 38, 105-112.	1.1	21
84	Spectral signal space projection algorithm for frequency domain MEG and EEG denoising, whitening, and source imaging. NeuroImage, 2011, 56, 78-92.	4.2	43
85	Tracking cortical activity from M/EEG using graph cuts with spatiotemporal constraints. NeuroImage, 2011, 54, 1930-1941.	4.2	4
86	Phase delays within visual cortex shape the response to steady-state visual stimulation. NeuroImage, 2011, 54, 1919-1929.	4.2	30
87	Electromagnetic Brain Mapping Using MEG and EEG. , 2011, , .		5
88	Hyperglycemia and the Fate of Apparent Diffusion Coefficientâ€“Defined Ischemic Penumbra. American Journal of Neuroradiology, 2011, 32, 852-856.	2.4	25
89	Feature detection and tracking in optical flow on non-flat manifolds. Pattern Recognition Letters, 2011, 32, 2047-2052.	4.2	4
90	Diffeomorphic Brain Registration Under Exhaustive Sulcal Constraints. IEEE Transactions on Medical Imaging, 2011, 30, 1214-1227.	8.9	62

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91	Inferring hand movement kinematics from MEG, EEG and intracranial EEG: From brain-machine interfaces to motor rehabilitation. Irbm, 2011, 32, 8-18.	5.6	64
92	rtMEG: A Real-Time Software Interface for Magnetoencephalography. Computational Intelligence and Neuroscience, 2011, 2011, 1-7.	1.7	42
93	Academic Software Applications for Electromagnetic Brain Mapping Using MEG and EEG. Computational Intelligence and Neuroscience, 2011, 2011, 1-4.	1.7	79
94	Magnetoencephalography. , 2011, , 77-89.		0
95	Synchronisations corticales locale etÂÃÂdistance: unÂmÃ©canisme d'initiation desÂabsences?. Epilepsies, 2010, 22, 18-32.	0.0	0
96	Neuroelectromagnetic Source Imaging of Brain Dynamics. Springer Optimization and Its Applications, 2010, , 127-155.	0.9	10
97	MEG-Clinic: A Comprehensive Software Solution for Routine MEG Analysis. IFMBE Proceedings, 2010, , 128-131.	0.3	1
98	Neuromagnetic source imaging of abnormal spontaneous activity in tinnitus patient modulated by electrical cortical stimulation. , 2009, 2009, 1940-4.		11
99	Prediction of Infarct Growth Based on Apparent Diffusion Coefficients: Penumbral Assessment without Intravenous Contrast Material. Radiology, 2009, 250, 184-192.	7.3	52
100	Optical flow approaches to the identification of brain dynamics. Human Brain Mapping, 2009, 30, 1887-1897.	3.6	15
101	Electromagnetic brain imaging. Human Brain Mapping, 2009, 30, 1753-1757.	3.6	39
102	Modelling and detecting deep brain activity with MEG and EEG. Irbm, 2009, 30, 133-138.	5.6	45
103	Enter feelings: Somatosensory responses following early stages of visual induction of emotion. International Journal of Psychophysiology, 2009, 72, 13-23.	1.0	59
104	Cortical local and long-range synchronization interplay in human absence seizure initiation. NeuroImage, 2009, 45, 950-962.	4.2	94
105	Simultaneous MEG and intracranial EEG recordings during attentive reading. NeuroImage, 2009, 45, 1289-1304.	4.2	122
106	Identification of Growth Seeds in the Neonate Brain through Surfacic Helmholtz Decomposition. Lecture Notes in Computer Science, 2009, 21, 252-263.	1.3	21
107	DISCO: A Coherent Diffeomorphic Framework for Brain Registration under Exhaustive Sulcal Constraints. Lecture Notes in Computer Science, 2009, 12, 730-738.	1.3	8
108	Estimation of Velocity Fields and Propagation on Non-Euclidian Domains: Application to the Exploration of Cortical Spatiotemporal Dynamics. Lecture Notes in Mathematics, 2009, , 203-226.	0.2	0

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109	Automatic Prediction of Infarct Growth in Acute Ischemic Stroke from MR Apparent Diffusion Coefficient Maps. Academic Radiology, 2008, 15, 77-83.	2.5	22
110	Optical Flow and Advection on 2-Riemannian Manifolds: A Common Framework. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2008, 30, 1081-1092.	13.9	20
111	Cortical flow: Investigating the spatiotemporal dynamics of the brain. , 2008, , .		0
112	Cortical Dynamics of Anticipatory Mechanisms in Interception: A Neuromagnetic Study. Journal of Cognitive Neuroscience, 2008, 20, 1827-1838.	2.3	28
113	Hearing Faces: How the Infant Brain Matches the Face It Sees with the Speech It Hears. Journal of Cognitive Neuroscience, 2008, 21, 905-921.	2.3	125
114	Brain Dynamics Underlying the Nonlinear Threshold for Access to Consciousness. PLoS Biology, 2007, 5, e260.	5.6	583
115	Robust Nonparametric Segmentation of Infarct Lesion from Diffusion-Weighted MR Images. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2102-5.	0.5	19
116	Challenging the estimation of cortical activity from MEG with simulated fMRI-constrained retinotopic maps. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4945-8.	0.5	2
117	Coherent neural representation of hand speed in humans revealed by MEG imaging. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 7676-7681.	7.1	252
118	A simultaneous MEG and intracranial EEG study of task-related brain oscillations. International Congress Series, 2007, 1300, 421-424.	0.2	5
119	Anatomically constrained region deformation for the automated segmentation of the hippocampus and the amygdala: Method and validation on controls and patients with Alzheimerâ€™s disease. NeuroImage, 2007, 34, 996-1019.	4.2	145
120	Multiresolution imaging of MEG cortical sources using an explicit piecewise model. NeuroImage, 2007, 38, 439-451.	4.2	28
121	Modeling and Detecting Deep Brain Activity with MEG & EEG. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4937-40.	0.5	56
122	Mapping and Tracking the Flow of Brain Activations using MEG/EEG: Hypothesis and Methods. , 2007, , .		1
123	A MEG Multiresolution Model Selection Procedure Reveals the Cortical Somatotopy of Hand-Fingers. , 2007, , .		0
124	Classification methods for ongoing EEG and MEG signals. Biological Research, 2007, 40, .	3.4	64
125	Imaging Brain Activation Streams from Optical Flow Computation on 2-Riemannian Manifolds. Lecture Notes in Computer Science, 2007, 20, 470-481.	1.3	10
126	Classification methods for ongoing EEG and MEG signals. Biological Research, 2007, 40, 415-37.	3.4	20

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127	Competitive segmentation of the hippocampus and the amygdala from MRI data: validation on young healthy controls and Alzheimer's disease patients. , 2006, 6144, 178.		1
128	Timing of the brain events underlying access to consciousness during the attentional blink. Nature Neuroscience, 2005, 8, 1391-1400.	14.8	777
129	A comparison of random field theory and permutation methods for the statistical analysis of MEG data. NeuroImage, 2005, 25, 383-394.	4.2	191
130	Investigations of dipole localization accuracy in MEG using the bootstrap. NeuroImage, 2005, 25, 355-368.	4.2	54
131	Automated interictal spike detection and source localization in magnetoencephalography using independent components analysis and spatio-temporal clustering. Clinical Neurophysiology, 2004, 115, 508-522.	1.5	96
132	Localization of realistic cortical activity in MEG using current multipoles. NeuroImage, 2004, 22, 779-793.	4.2	76
133	Spatiotemporal Localization of Significant Activation in MEG Using Permutation Tests. Lecture Notes in Computer Science, 2003, 18, 512-523.	1.3	26
134	Electromagnetic brain mapping. IEEE Signal Processing Magazine, 2001, 18, 14-30.	5.6	1,373
135	A multiresolution framework to MEG/EEG source imaging. IEEE Transactions on Biomedical Engineering, 2001, 48, 1080-1087.	4.2	39
136	Rapidly recomputable EEG forward models for realistic head shapes. Physics in Medicine and Biology, 2001, 46, 1265-1281.	3.0	74
137	Combined MEG and EEG source imaging by minimization of mutual information. IEEE Transactions on Biomedical Engineering, 1999, 46, 522-534.	4.2	96
138	MEG Source Imaging Using Multipolar Expansions. Lecture Notes in Computer Science, 1999, , 15-28.	1.3	16
139	EEG Source Localization and Imaging Using Multiple Signal Classification Approaches. Journal of Clinical Neurophysiology, 1999, 16, 225-238.	1.7	126
140	Influence of skull anisotropy for the forward and inverse problem in EEG: Simulation studies using FEM on realistic head models. , 1998, 6, 250-269.		139
141	MagnÃ©toencÃ©phalographie / Ã©lectroencÃ©phalographie et imagerie cÃ©rÃ©brale fonctionnelle. Annales De L'Institut Pasteur / ActualitÃ©s, 1998, 9, 215-226.	0.1	1
142	A phonological representation in the infant brain. NeuroReport, 1998, 9, 1885-1888.	1.2	227
143	A Bayesian approach to introducing anatomo-functional priors in the EEG/MEG inverse problem. IEEE Transactions on Biomedical Engineering, 1997, 44, 374-385.	4.2	274