

Matti Hamalainen

List of Publications by Year in descending order

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55
papers

9,086
citations

230014

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all docs

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docs citations

59
times ranked

8273
citing authors

#	ARTICLE	IF	CITATIONS
1	Weighted Blind Source Separation Can Decompose the Frequency Mismatch Response by Deviant Concatenation: An MEG Study. <i>Frontiers in Neurology</i> , 2022, 13, 762497.	1.1	0
2	Boundary Element Fast Multipole Method for Enhanced Modeling of Neurophysiological Recordings. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 308-318.	2.5	21
3	Auditory cues facilitate object movement processing in human extrastriate visual cortex during simulated self-motion: A pilot study. <i>Brain Research</i> , 2021, 1765, 147489.	1.1	1
4	Synchronization patterns reveal neuronal coding of working memory content. <i>Cell Reports</i> , 2021, 36, 109566.	2.9	17
5	Multiscale Modeling of EEG/MEG Response of a Compact Cluster of Tightly Spaced Pyramidal Neocortical Neurons. , 2021, , 195-211.		0
6	A novel time-delayed correlation method decomposes mismatch response without using subtraction. , 2021, 2021, 484-487.		1
7	Magnetoencephalography Signal Processing, Forward Modeling, Inverse Source Imaging, and Coherence Analysis. <i>Neuroimaging Clinics of North America</i> , 2020, 30, 125-143.	0.5	6
8	Human Neocortical Neurosolver (HNN), a new software tool for interpreting the cellular and network origin of human MEG/EEG data. <i>ELife</i> , 2020, 9, .	2.8	68
9	Permutation Statistics for Connectivity Analysis between Regions of Interest in EEG and MEG Data. <i>Scientific Reports</i> , 2019, 9, 7942.	1.6	18
10	IFCN-endorsed practical guidelines for clinical magnetoencephalography (MEG). <i>Clinical Neurophysiology</i> , 2018, 129, 1720-1747.	0.7	111
11	Localizing on-scalp MEG sensors using an array of magnetic dipole coils. <i>PLoS ONE</i> , 2018, 13, e0191111.	1.1	27
12	Versatile synchronized real-time MEG hardware controller for large-scale fast data acquisition. <i>Review of Scientific Instruments</i> , 2017, 88, 055110.	0.6	4
13	Benchmarking for On-Scalp MEG Sensors. <i>IEEE Transactions on Biomedical Engineering</i> , 2017, 64, 1270-1276.	2.5	20
14	Auditory processing in noise is associated with complex patterns of disrupted functional connectivity in autism spectrum disorder. <i>Autism Research</i> , 2017, 10, 631-647.	2.1	41
15	Suppression of irrelevant sounds during auditory working memory. <i>NeuroImage</i> , 2017, 161, 1-8.	2.1	11
16	A Review of Issues Related to Data Acquisition and Analysis in EEG/MEG Studies. <i>Brain Sciences</i> , 2017, 7, 58.	1.1	112
17	Similarities and differences between on-scalp and conventional in-helmet magnetoencephalography recordings. <i>PLoS ONE</i> , 2017, 12, e0178602.	1.1	25
18	BabyMEG: A whole-head pediatric magnetoencephalography system for human brain development research. <i>Review of Scientific Instruments</i> , 2016, 87, 094301.	0.6	66

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19	Interacting parallel pathways associate sounds with visual identity in auditory cortices. <i>NeuroImage</i> , 2016, 124, 858-868.	2.1	9
20	Attention Drives Synchronization of Alpha and Beta Rhythms between Right Inferior Frontal and Primary Sensory Neocortex. <i>Journal of Neuroscience</i> , 2015, 35, 2074-2082.	1.7	79
21	Auditory Conflict Resolution Correlates with Medial/Lateral Frontal Theta/Alpha Phase Synchrony. <i>PLoS ONE</i> , 2014, 9, e110989.	1.1	10
22	Lateralized parietotemporal oscillatory phase synchronization during auditory selective attention. <i>NeuroImage</i> , 2014, 86, 461-469.	2.1	22
23	Location specific sleep spindle activity in the early visual areas and perceptual learning. <i>Vision Research</i> , 2014, 99, 162-171.	0.7	55
24	Enhanced Spontaneous Oscillations in the Supplementary Motor Area Are Associated with Sleep-Dependent Offline Learning of Finger-Tapping Motor-Sequence Task. <i>Journal of Neuroscience</i> , 2013, 33, 13894-13902.	1.7	80
25	Dynamic Oscillatory Processes Governing Cued Orienting and Allocation of Auditory Attention. <i>Journal of Cognitive Neuroscience</i> , 2013, 25, 1926-1943.	1.1	65
26	MEG and EEG data analysis with MNE-Python. <i>Frontiers in Neuroscience</i> , 2013, 7, 267.	1.4	1,864
27	MEG Source Localization Using Invariance of Noise Space. <i>PLoS ONE</i> , 2013, 8, e58408.	1.1	8
28	Mixed-norm estimates for the M/EEG inverse problem using accelerated gradient methods. <i>Physics in Medicine and Biology</i> , 2012, 57, 1937-1961.	1.6	169
29	Dissociable Influences of Auditory Object vs. Spatial Attention on Visual System Oscillatory Activity. <i>PLoS ONE</i> , 2012, 7, e38511.	1.1	12
30	Viability of sharing MEG data using minimum-norm imaging. <i>Proceedings of SPIE</i> , 2011, , .	0.8	1
31	Attention-driven auditory cortex short-term plasticity helps segregate relevant sounds from noise. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 4182-4187.	3.3	99
32	Dynamics of Dynamics within a Single Data Acquisition Session: Variation in Neocortical Alpha Oscillations in Human MEG. <i>PLoS ONE</i> , 2011, 6, e24941.	1.1	14
33	Functional Mapping with Simultaneous MEG and EEG. <i>Journal of Visualized Experiments</i> , 2010, , .	0.2	11
34	Onset timing of cross-sensory activations and multisensory interactions in auditory and visual sensory cortices. <i>European Journal of Neuroscience</i> , 2010, 31, 1772-1782.	1.2	107
35	Transformations in oscillatory activity and evoked responses in primary somatosensory cortex in middle age: A combined computational neural modeling and MEG study. <i>NeuroImage</i> , 2010, 52, 897-912.	2.1	44
36	Cued Spatial Attention Drives Functionally Relevant Modulation of the Mu Rhythm in Primary Somatosensory Cortex. <i>Journal of Neuroscience</i> , 2010, 30, 13760-13765.	1.7	234

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37	Quantitative Analysis and Biophysically Realistic Neural Modeling of the MEG Mu Rhythm: Rhythmogenesis and Modulation of Sensory-Evoked Responses. <i>Journal of Neurophysiology</i> , 2009, 102, 3554-3572.	0.9	203
38	Multimodal Functional Imaging Using fMRI-Informed Regional EEG/MEG Source Estimation. <i>Lecture Notes in Computer Science</i> , 2009, , 88-100.	1.0	2
39	A Distributed Spatio-temporal EEG/MEG Inverse Solver. <i>Lecture Notes in Computer Science</i> , 2008, 11, 26-34.	1.0	6
40	Parallel input makes the brain run faster. <i>NeuroImage</i> , 2008, 40, 1792-1797.	2.1	40
41	Spatiotemporal Mapping the Neural Correlates of Acupuncture with MEG. <i>Journal of Alternative and Complementary Medicine</i> , 2008, 14, 679-688.	2.1	15
42	Early visual brain areas reflect the percept of an ambiguous scene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 20500-20504.	3.3	90
43	Neural Correlates of Tactile Detection: A Combined Magnetoencephalography and Biophysically Based Computational Modeling Study. <i>Journal of Neuroscience</i> , 2007, 27, 10751-10764.	1.7	142
44	MRI-constrained spectral imaging of benzodiazepine modulation of spontaneous neuromagnetic activity in human cortex. <i>NeuroImage</i> , 2007, 35, 577-582.	2.1	41
45	Sources of Variability in MEG. , 2007, 10, 751-759.		11
46	Task-modulated "what" and "where" pathways in human auditory cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 14608-14613.	3.3	315
47	Magnetoencephalographic Characterization of Dynamic Brain Activation: Basic Principles and Methods of Data Collection and Source Analysis. , 2002, , 227-253.		43
48	Magnetoencephalography's theory, instrumentation, and applications to noninvasive studies of the working human brain. <i>Reviews of Modern Physics</i> , 1993, 65, 413-497.	16.4	3,939
49	Human auditory cortical mechanisms of sound lateralization: I. Interaural time differences within sound. <i>Hearing Research</i> , 1993, 67, 89-97.	0.9	42
50	Seeing speech: visual information from lip movements modifies activity in the human auditory cortex. <i>Neuroscience Letters</i> , 1991, 127, 141-145.	1.0	371
51	Landau-Kleffner syndrome. <i>NeuroReport</i> , 1991, 2, 201-204.	0.6	55
52	Cortical Activity Elicited by Changes in Auditory Stimuli: Different Sources for the Magnetic N100m and Mismatch Responses. <i>Psychophysiology</i> , 1991, 28, 21-29.	1.2	131
53	MEG versus EEG localization test. <i>Annals of Neurology</i> , 1991, 30, 222-223.	2.8	24
54	Neuromagnetic steady-state responses to auditory stimuli. <i>Journal of the Acoustical Society of America</i> , 1989, 86, 1033-1039.	0.5	178

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55	A Novel Approach to Estimating the Cortical Sources of Sleep Spindles Using Simultaneous EEG/MEG. Frontiers in Neurology, 0, 13, .	1.1	1