Matti S HÃ¤mÃ¤lÃ¤inen

List of Publications by Year
in descending order

68 papers	10,410 citations	186265 28 h-index	128289 60 g-index
71 all docs	71 docs citations	71 times ranked	8219 citing authors

#	Article	IF	Citations
1	Source EEG reveals that Rolandic epilepsy is a regional epileptic encephalopathy. NeuroImage: Clinical, 2022, 33, 102956.	2.7	14
2	Cortical signatures of auditory object binding in children with autism spectrum disorder are anomalous in concordance with behavior and diagnosis. PLoS Biology, 2022, 20, e3001541.	5.6	4
3	Weighted Blind Source Separation Can Decompose the Frequency Mismatch Response by Deviant Concatenation: An MEG Study. Frontiers in Neurology, 2022, 13, 762497.	2.4	0
4	Boundary Element Fast Multipole Method for Enhanced Modeling of Neurophysiological Recordings. IEEE Transactions on Biomedical Engineering, 2021, 68, 308-318.	4.2	21
5	Spatial fidelity of MEG/EEG source estimates: A general evaluation approach. NeuroImage, 2021, 224, 117430.	4.2	46
6	Classification of evoked responses to inverted faces reveals both spatial and temporal cortical response abnormalities in Autism spectrum disorder. NeuroImage: Clinical, 2021, 29, 102501.	2.7	1
7	Age-Related EEG Power Reductions Cannot Be Explained by Changes of the Conductivity Distribution in the Head Due to Brain Atrophy. Frontiers in Aging Neuroscience, 2021, 13, 632310.	3.4	5
8	Influence of unfused cranial bones on magnetoencephalography signals in human infants. Clinical Neurophysiology, 2021, 132, 708-719.	1.5	0
9	Contextual MEG and EEG Source Estimates Using Spatiotemporal LSTM Networks. Frontiers in Neuroscience, 2021, 15, 552666.	2.8	10
10	High-Density EEG in Current Clinical Practice and Opportunities for the Future. Journal of Clinical Neurophysiology, 2021, 38, 112-123.	1.7	20
11	Whole-head OPM-MEG enables noninvasive assessment of functional connectivity. Trends in Neurosciences, 2021, 44, 510-512.	8.6	11
12	Altered maturation and atypical cortical processing of spoken sentences in autism spectrum disorder. Progress in Neurobiology, 2021, 203, 102077.	5.7	5
13	Auditory cues facilitate object movement processing in human extrastriate visual cortex during simulated self-motion: A pilot study. Brain Research, 2021, 1765, 147489.	2.2	1
14	Rapid computation of TMS-induced E-fields using a dipole-based magnetic stimulation profile approach. NeuroImage, 2021, 237, 118097.	4.2	17
15	Synchronization patterns reveal neuronal coding of working memory content. Cell Reports, 2021, 36, 109566.	6.4	17
16	Individual Resting-State Brain Networks Enabled by Massive Multivariate Conditional Mutual Information. IEEE Transactions on Medical Imaging, 2020, 39, 1957-1966.	8.9	21
17	Magnetoencephalography Signal Processing, Forward Modeling, Inverse Source Imaging, and Coherence Analysis. Neuroimaging Clinics of North America, 2020, 30, 125-143.	1.0	6
18	Epileptic Activity Intrinsically Generated in the Human Cerebellum. Annals of Neurology, 2020, 88, 418-422.	5.3	0

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19	A computational paradigm for real-time MEG neurofeedback for dynamic allocation of spatial attention. BioMedical Engineering OnLine, 2020, 19, 45.	2.7	3
20	Detectability of cerebellar activity with magnetoencephalography and electroencephalography. Human Brain Mapping, 2020, 41, 2357-2372.	3.6	36
21	New Cognitive Neurotechnology Facilitates Studies of Cortical–Subcortical Interactions. Trends in Biotechnology, 2020, 38, 952-962.	9.3	15
22	Human Neocortical Neurosolver (HNN), a new software tool for interpreting the cellular and network origin of human MEG/EEG data. ELife, 2020, 9, .	6.0	68
23	Distinct Regional Oscillatory Connectivity Patterns During Auditory Target and Novelty Processing. Brain Topography, 2020, 33, 477-488.	1.8	5
24	Cortical Signal Suppression (CSS) for Detection of Subcortical Activity Using MEG and EEG. Brain Topography, 2019, 32, 215-228.	1.8	11
25	Multimodal neuroimaging evidence for looser lexico-semantic networks in schizophrenia:Evidence from masked indirect semantic priming. Neuropsychologia, 2019, 124, 337-349.	1.6	12
26	IFCN-endorsed practical guidelines for clinical magnetoencephalography (MEG). Clinical Neurophysiology, 2018, 129, 1720-1747.	1.5	111
27	MNE Scan: Software for real-time processing of electrophysiological data. Journal of Neuroscience Methods, 2018, 303, 55-67.	2.5	17
28	Maturation trajectories of cortical resting-state networks depend on the mediating frequency band. NeuroImage, 2018, 174, 57-68.	4.2	53
29	Reply to "Prospective advances in fetal biomagnetometry – Challenges remain" Clinical Neurophysiology, 2018, 129, 505-506.	1.5	0
30	Noise cancellation for a whole-head magnetometer-based MEG system in hospital environment. Biomedical Physics and Engineering Express, 2018, 4, 055014.	1.2	6
31	A Reproducible MEG/EEG Group Study With the MNE Software: Recommendations, Quality Assessments, and Good Practices. Frontiers in Neuroscience, 2018, 12, 530.	2.8	82
32	Left-Lateralized Contributions of Saccades to Cortical Activity During a One-Back Word Recognition Task. Frontiers in Neural Circuits, 2018, 12, 38.	2.8	3
33	Improving the Nulling Beamformer Using Subspace Suppression. Frontiers in Computational Neuroscience, 2018, 12, 35.	2.1	2
34	Versatile synchronized real-time MEG hardware controller for large-scale fast data acquisition. Review of Scientific Instruments, 2017, 88, 055110.	1.3	4
35	Auditory processing in noise is associated with complex patterns of disrupted functional connectivity in autism spectrum disorder. Autism Research, 2017, 10, 631-647.	3.8	41
36	Suppression of irrelevant sounds during auditory working memory. NeuroImage, 2017, 161, 1-8.	4.2	11

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37	Sparsity enables estimation of both subcortical and cortical activity from MEG and EEG. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10465-E10474.	7.1	106
38	A Review of Issues Related to Data Acquisition and Analysis in EEG/MEG Studies. Brain Sciences, 2017, 7, 58.	2.3	112
39	Normal Evoked Response to Rapid Sequences of Tactile Pulses in Autism Spectrum Disorders. Frontiers in Human Neuroscience, 2016, 10, 433.	2.0	7
40	Altered Onset Response Dynamics in Somatosensory Processing in Autism Spectrum Disorder. Frontiers in Neuroscience, 2016, 10, 255.	2.8	15
41	BabyMEG: A whole-head pediatric magnetoencephalography system for human brain development research. Review of Scientific Instruments, 2016, 87, 094301.	1.3	66
42	Neural mechanisms of transient neocortical beta rhythms: Converging evidence from humans, computational modeling, monkeys, and mice. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4885-94.	7.1	360
43	Spatiotemporal Signatures of Lexical–Semantic Prediction. Cerebral Cortex, 2016, 26, 1377-1387.	2.9	62
44	Interacting parallel pathways associate sounds with visual identity in auditory cortices. NeuroImage, 2016, 124, 858-868.	4.2	9
45	Attention Drives Synchronization of Alpha and Beta Rhythms between Right Inferior Frontal and Primary Sensory Neocortex. Journal of Neuroscience, 2015, 35, 2074-2082.	3.6	79
46	Somatosensory cortex functional connectivity abnormalities in autism show opposite trends, depending on direction and spatial scale. Brain, 2015, 138, 1394-1409.	7.6	125
47	Altered Development and Multifaceted Band-Specific Abnormalities of Resting State Networks in Autism. Biological Psychiatry, 2015, 77, 794-804.	1.3	107
48	Auditory Conflict Resolution Correlates with Medial–Lateral Frontal Theta/Alpha Phase Synchrony. PLoS ONE, 2014, 9, e110989.	2.5	10
49	Vector &#x2113;<inf>0</inf> latent-space principal component analysis. , 2014, , .		0
50	Clinical value of magnetoencephalographic spike propagation represented by spatiotemporal source analysis: Correlation with surgical outcome. Epilepsy Research, 2014, 108, 280-288.	1.6	22
51	A Subspace Pursuit-based Iterative Greedy Hierarchical solution to the neuromagnetic inverse problem. NeuroImage, 2014, 87, 427-443.	4.2	41
52	MNE software for processing MEG and EEG data. NeuroImage, 2014, 86, 446-460.	4.2	1,431
53	Lateralized parietotemporal oscillatory phase synchronization during auditory selective attention. NeuroImage, 2014, 86, 461-469.	4.2	22
54	Targeting of White Matter Tracts with Transcranial Magnetic Stimulation. Brain Stimulation, 2014, 7, 80-84.	1.6	56

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55	Effects of sutures and fontanels on MEG and EEG source analysis in a realistic infant head model. NeuroImage, 2013, 76, 282-293.	4.2	88
56	Local and long-range functional connectivity is reduced in concert in autism spectrum disorders. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3107-3112.	7.1	260
57	Sparse component selection with application to MEG source localization. , 2013, , .		2
58	MEG and EEG data analysis with MNE-Python. Frontiers in Neuroscience, 2013, 7, 267.	2.8	1,864
59	MEG/EEG source reconstruction based on Gabor thresholding in the source space. , 2011, , .		0
60	Multimodal neuroimaging dissociates hemodynamic and electrophysiological correlates of error processing. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 17556-17561.	7.1	97
61	Cancellation of EEG and MEG signals generated by extended and distributed sources. Human Brain Mapping, 2010, 31, 140-149.	3.6	111
62	Sensitivity of MEG and EEG to Source Orientation. Brain Topography, 2010, 23, 227-232.	1.8	208
63	Head movements of children in MEG: Quantification, effects on source estimation, and compensation. NeuroImage, 2008, 40, 541-550.	4.2	73
64	Parallel input makes the brain run faster. NeuroImage, 2008, 40, 1792-1797.	4.2	40
65	Early visual brain areas reflect the percept of an ambiguous scene. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20500-20504.	7.1	90
66	Sources of Variability in MEG. , 2007, 10, 751-759.		11
67	Task-modulated "what" and "where" pathways in human auditory cortex. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 14608-14613.	7.1	315
68	Magnetoencephalographyâ€"theory, instrumentation, and applications to noninvasive studies of the working human brain. Reviews of Modern Physics, 1993, 65, 413-497.	45.6	3,939