Alberto Fernandez

List of Publications by Year
in descending order

123	4,381	76294	133188
papers	citations	40 h-index	59 g-index

127	127	127	4091
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Activation of the prefrontal cortex in the human visual aesthetic perception. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 6321-6325.	3.3	254
2	What electrophysiology tells us about Alzheimer's disease: a window into the synchronization and connectivity of brain neurons. Neurobiology of Aging, 2020, 85, 58-73.	1.5	150
3	Use of the Higuchi's fractal dimension for the analysis of MEG recordings from Alzheimer's disease patients. Medical Engineering and Physics, 2009, 31, 306-313.	0.8	131
4	Focal temporoparietal slow activity in Alzheimerâ€™s disease revealed by magnetoencephalography. Biological Psychiatry, 2002, 52, 764-770.	0.7	127
5	Refined multiscale fuzzy entropy based on standard deviation for biomedical signal analysis. Medical and Biological Engineering and Computing, 2017, 55, 2037-2052.	1.6	120
6	Electromagnetic signatures of the preclinical and prodromal stages of Alzheimerâ€™s disease. Brain, 2018, 141, 1470-1485.	3.7	109
7	MEG spectral profile in Alzheimer's disease and mild cognitive impairment. Clinical Neurophysiology, 2006, 117, 306-314.	0.7	104
8	Extraction of spectral based measures from MEG background oscillations in Alzheimer's disease. Medical Engineering and Physics, 2007, 29, 1073-1083.	0.8	97
9	Complexity analysis of spontaneous brain activity: effects of depression and antidepressant treatment. Journal of Psychopharmacology, 2012, 26, 636-643.	2.0	96
10	Spanish Language Mapping Using MEG: A Validation Study. NeuroImage, 2002, 17, 1579-1586.	2.1	91
11	Correlations of hippocampal atrophy and focal low-frequency magnetic activity in Alzheimer disease: volumetric MR imaging-magnetoencephalographic study. American Journal of Neuroradiology, 2003, 24, 481-7.	1.2	90
12	Complexity Analysis of Spontaneous Brain Activity in Attention-Deficit/Hyperactivity Disorder: Diagnostic Implications. Biological Psychiatry, 2009, 65, 571-577.	0.7	87
13	Complexity and schizophrenia. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 2013, 45, 267-276.	2.5	85
14	Brain-wide slowing of spontaneous alpha rhythms in mild cognitive impairment. Frontiers in Aging Neuroscience, 2013, 5, 100.	1.7	78
15	Current state of knowledge on the prevalence of neurodevelopmental disorders in childhood according to the DSM-5: a systematic review in accordance with the PRISMA criteria. Child and Adolescent Psychiatry and Mental Health, 2022, 16, 27.	1.2	78
16	Spatiotemporal brain dynamics during preparatory set shifting: MEG evidence. NeuroImage, 2004, 21, 687-695.	2.1	77
17	Lempelâ€“Ziv complexity in schizophrenia: A MEG study. Clinical Neurophysiology, 2011, 122, 2227-2235.	0.7	77
18	Spectral and Nonlinear Analyses of MEG Background Activity in Patients With Alzheimer's Disease. IEEE Transactions on Biomedical Engineering, 2008, 55, 1658-1665.	2.5	69

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19	Complexity analysis of the magnetoencephalogram background activity in Alzheimer's disease patients. Medical Engineering and Physics, 2006, 28, 851-859.	0.8	66
20	Artifact Removal in Magnetoencephalogram Background Activity With Independent Component Analysis. IEEE Transactions on Biomedical Engineering, 2007, 54, 1965-1973.	2.5	65
21	Quantitative Evaluation of Artifact Removal in Real Magnetoencephalogram Signals with Blind Source Separation. Annals of Biomedical Engineering, 2011, 39, 2274-2286.	1.3	65
22	Magnetoencephalographic Parietal Î´ Dipole Density in Mild Cognitive Impairment. Archives of Neurology, 2006, 63, 427.	4.9	64
23	Analysis of MEG Background Activity in Alzheimerâ€™s Disease Using Nonlinear Methods and ANFIS. Annals of Biomedical Engineering, 2009, 37, 586-594.	1.3	64
24	Early functional network alterations in asymptomatic elders at risk for Alzheimerâ€™s disease. Scientific Reports, 2017, 7, 6517.	1.6	64
25	Measures of resting state EEG rhythms for clinical trials in Alzheimer's disease: Recommendations of an expert panel. Alzheimer's and Dementia, 2021, 17, 1528-1553.	0.4	64
26	Effects of Cholinergic Drugs and Cognitive Training on Dementia: 2-Year Follow-Up. Dementia and Geriatric Cognitive Disorders, 2006, 22, 339-345.	0.7	63
27	Disturbed Beta Band Functional Connectivity in Patients With Mild Cognitive Impairment: An MEG Study. IEEE Transactions on Biomedical Engineering, 2009, 56, 1683-1690.	2.5	62
28	Complexity Analysis of Spontaneous Brain Activity in Alzheimer Disease and Mild Cognitive Impairment. Alzheimer Disease and Associated Disorders, 2010, 24, 182-189.	0.6	59
29	Spectral changes in spontaneous MEG activity across the lifespan. Journal of Neural Engineering, 2013, 10, 066006.	1.8	58
30	Influence of the APOE Îµ4 Allele and Mild Cognitive Impairment Diagnosis in the Disruption of the MEG Resting State Functional Connectivity in Sources Space. Journal of Alzheimer's Disease, 2015, 44, 493-505.	1.2	57
31	Spatio-temporal patterns of brain magnetic activity during a memory task in Alzheimer's disease. NeuroReport, 2001, 12, 3917-3922.	0.6	55
32	Task-specific sensory and motor preparatory activation revealed by contingent magnetic variation. Cognitive Brain Research, 2004, 21, 59-68.	3.3	55
33	Cortical organization for receptive language functions in Chinese, English, and Spanish: a cross-linguistic MEG study. Neuropsychologia, 2004, 42, 967-979.	0.7	49
34	Shifting-Related Brain Magnetic Activity in Attention-Deficit/Hyperactivity Disorder. Biological Psychiatry, 2006, 59, 373-379.	0.7	49
35	Analysis of spontaneous MEG activity in mild cognitive impairment and Alzheimer's disease using spectral entropies and statistical complexity measures. Journal of Neural Engineering, 2012, 9, 036007.	1.8	48
36	MEG Delta Mapping Along the Healthy Aging-Alzheimer's Disease Continuum: Diagnostic Implications. Journal of Alzheimer's Disease, 2013, 35, 495-507.	1.2	48

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37	The Importance of the Validation of M/EEG With Current Biomarkers in Alzheimer's Disease. Frontiers in Human Neuroscience, 2019, 13, 17.	1.0	48
38	Brain oscillatory complexity across the life span. Clinical Neurophysiology, 2012, 123, 2154-2162.	0.7	46
39	Searching for Primary Predictors of Conversion from Mild Cognitive Impairment to Alzheimerâ€™s Disease: A Multivariate Follow-Up Study. Journal of Alzheimer's Disease, 2016, 52, 133-143.	1.2	46
40	Regional Analysis of Spontaneous MEG Rhythms in Patients with Alzheimerâ€™s Disease Using Spectral Entropies. Annals of Biomedical Engineering, 2008, 36, 141-152.	1.3	45
41	Magnetoencephalography as a Putative Biomarker for Alzheimer's Disease. International Journal of Alzheimer's Disease, 2011, 2011, 1-10.	1.1	43
42	MEG Connectivity Analysis in Patients with Alzheimerâ€™s Disease Using Cross Mutual Information and Spectral Coherence. Annals of Biomedical Engineering, 2011, 39, 524-536.	1.3	40
43	Magnetoencephalographic pattern of epileptiform activity in children with early-onset autism spectrum disorders. Clinical Neurophysiology, 2008, 119, 626-634.	0.7	39
44	Do cognitive patterns of brain magnetic activity correlate with hippocampal atrophy in Alzheimer's disease?. Journal of Neurology, Neurosurgery and Psychiatry, 2003, 74, 208-212.	0.9	38
45	Analysis of the magnetoencephalogram background activity in Alzheimer's disease patients with auto-mutual information. Computer Methods and Programs in Biomedicine, 2007, 87, 239-247.	2.6	38
46	MEG spectral analysis in subtypes of mild cognitive impairment. Age, 2014, 36, 9624.	3.0	38
47	Quantitative Magnetoencephalography of Spontaneous Brain Activity in Alzheimer Disease. Alzheimer Disease and Associated Disorders, 2006, 20, 153-159.	0.6	37
48	Evaluation of spectral ratio measures from spontaneous MEG recordings in patients with Alzheimer's disease. Computer Methods and Programs in Biomedicine, 2008, 90, 137-147.	2.6	35
49	Increased biomagnetic activity in the ventral pathway in mild cognitive impairment. Clinical Neurophysiology, 2008, 119, 1320-1327.	0.7	34
50	Multiscale entropy analysis of resting-state magnetoencephalogram with tensor factorisations in Alzheimer's disease. Brain Research Bulletin, 2015, 119, 136-144.	1.4	34
51	Complexity analysis of spontaneous brain activity in mood disorders: A magnetoencephalography study of bipolar disorder and major depression. Comprehensive Psychiatry, 2018, 84, 112-117.	1.5	32
52	Proton Magnetic Resonance Spectroscopy and Magnetoencephalographic Estimation of Delta Dipole Density: A Combination of Techniques That May Contribute to the Diagnosis of Alzheimerâ€™s Disease. Dementia and Geriatric Cognitive Disorders, 2005, 20, 169-177.	0.7	30
53	Modulation of brain magnetic activity by different verbal learning strategies. NeuroImage, 2003, 20, 1110-1121.	2.1	29
54	Increased occipital delta dipole density in major depressive disorder determined by magnetoencephalography. Journal of Psychiatry and Neuroscience, 2005, 30, 17-23.	1.4	27

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55	Medial temporal lobe neuromagnetic hypoactivation and risk for developing cognitive decline in elderly population: A 2-year follow-up study. Neurobiology of Aging, 2006, 27, 32-37.	1.5	26
56	Structural and Functional Patterns in Healthy Aging, Mild Cognitive Impairment, and Alzheimer Disease. Alzheimer Disease and Associated Disorders, 2010, 24, 1-10.	0.6	26
57	The correlation between white-matter microstructure and the complexity of spontaneous brain activity: A difussion tensor imaging-MEG study. NeuroImage, 2011, 57, 1300-1307.	2.1	26
58	Absolute Power Spectral Density Changes in the Magnetoencephalographic Activity During the Transition from Childhood to Adulthood. Brain Topography, 2017, 30, 87-97.	0.8	26
59	Analysis of neural dynamics in mild cognitive impairment and Alzheimer's disease using wavelet turbulence. Journal of Neural Engineering, 2014, 11, 026010.	1.8	25
60	Blind source separation to enhance spectral and non-linear features of magnetoencephalogram recordings. Application to Alzheimer's disease. Medical Engineering and Physics, 2009, 31, 872-879.	0.8	24
61	Spectral analysis of resting state magnetoencephalogram activity in patients with bipolar disorder. , 2014, 2014, 2197-200.		24
62	Is medial temporal lobe activation specific for encoding long-term memories?. NeuroImage, 2005, 25, 34-42.	2.1	23
63	Can small lesions induce language reorganization as large lesions do?. Brain and Language, 2004, 89, 433-438.	0.8	22
64	Time Modulated Prefrontal and Parietal Activity during the Maintenance of Integrated Information as Revealed by Magnetoencephalography. Cerebral Cortex, 2004, 15, 123-130.	1.6	21
65	MEG analysis of neural dynamics in attention-deficit/hyperactivity disorder with fuzzy entropy. Medical Engineering and Physics, 2015, 37, 416-423.	0.8	21
66	Complexity changes in preclinical Alzheimerâ€™s disease: An MEG study of subjective cognitive decline and mild cognitive impairment. Clinical Neurophysiology, 2020, 131, 437-445.	0.7	21
67	Evidence of Biochemical and Biomagnetic Interactions in Alzheimerâ€™s Disease: An MEG and MR Spectroscopy Study. Dementia and Geriatric Cognitive Disorders, 2005, 20, 145-152.	0.7	20
68	Assessment of classification improvement in patients with Alzheimer's disease based on magnetoencephalogram blind source separation. Artificial Intelligence in Medicine, 2008, 43, 75-85.	3.8	20
69	Source Analysis of Spontaneous Magnetoencephalograpic Activity in Healthy Aging and Mild Cognitive Impairment: Influence of Apolipoprotein E Polymorphism. Journal of Alzheimer's Disease, 2014, 43, 259-273.	1.2	20
70	Neuropsychological and neurophysiological characterization of mild cognitive impairment and Alzheimer's disease in Down syndrome. Neurobiology of Aging, 2019, 84, 70-79.	1.5	19
71	Limbic Paroxysmal Magnetoencephalographic Activity in 12 Obsessive-Compulsive Disorder Patients. Journal of Clinical Psychiatry, 2004, 65, 156-162.	1.1	19
72	Profiles of brain magnetic activity during a memory task in patients with Alzheimer's disease and in non-demented elderly subjects, with or without depression. Journal of Neurology, Neurosurgery and Psychiatry, 2004, 75, 1160-1162.	0.9	17

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73	Physical activity effects on the individual alpha peak frequency of older adults with and without genetic risk factors for Alzheimerâ€™s Disease: A MEG study. Clinical Neurophysiology, 2018, 129, 1981-1989.	0.7	17
74	Activity in human medial temporal lobe associated with encoding process in spatial working memory revealed by magnetoencephalography. European Journal of Neuroscience, 2005, 21, 1741-1748.	1.2	16
75	Permutation Entropy for the Characterisation of Brain Activity Recorded with Magnetoencephalograms in Healthy Ageing. Entropy, 2017, 19, 141.	1.1	16
76	Dispersion entropy for the analysis of resting-state MEG regularity in Alzheimer's disease. , 2016, 2016, 6417-6420.		16
77	Analysis of Spontaneous MEG Activity in Patients with Alzheimer's Disease using Spectral Entropies. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6180-3.	0.5	15
78	Magnetoencephalographic localization of peritumoral temporal epileptic focus previous surgical resection. Seizure: the Journal of the British Epilepsy Association, 2003, 12, 19-22.	0.9	12
79	Dipole Density of Low-Frequency and Spike Magnetic Activity: A Reliable Procedure in Presurgical Evaluation of Temporal Lobe Epilepsy. Journal of Clinical Neurophysiology, 2004, 21, 254-266.	0.9	12
80	Alterations of Effective Connectivity Patterns in Mild Cognitive Impairment: An MEG Study. Journal of Alzheimer's Disease, 2018, 65, 843-854.	1.2	12
81	Complexity Changes in Brain Activity in Healthy Ageing: A Permutation Lempel-Ziv Complexity Study of Magnetoencephalograms. Entropy, 2018, 20, 506.	1.1	12
82	The perception of emotion-free faces in schizophrenia: A magneto-encephalography study. Schizophrenia Research, 2008, 98, 278-286.	1.1	11
83	Regularity analysis of spontaneous MEG activity in Attention-Deficit/Hyperactivity Disorder. , 2011, 2011, 1765-8.		11
84	Cross-Approximate Entropy parallel computation on GPUs for biomedical signal analysis. Application to MEG recordings. Computer Methods and Programs in Biomedicine, 2013, 112, 189-199.	2.6	10
85	MEG Analysis of Neural Interactions in Attention-Deficit/Hyperactivity Disorder. Computational Intelligence and Neuroscience, 2016, 2016, 1-10.	1.1	10
86	Changes in the MEG background activity in patients with positive symptoms of schizophrenia: spectral analysis and impact of age. Physiological Measurement, 2013, 34, 265-279.	1.2	9
87	Evaluation of resting-state magnetoencephalogram complexity in Alzheimer's disease with multivariate multiscale permutation and sample entropies. , 2015, 2015, 7422-5.		9
88	Role of Magnetoencephalography in the Early Stages of Alzheimer Disease. Neuroimaging Clinics of North America, 2020, 30, 217-227.	0.5	9
89	A multivariate model of time to conversion from mild cognitive impairment to Alzheimerâ€™s disease. GeroScience, 2020, 42, 1715-1732.	2.1	9
90	Hypersynchronized Magnetoencephalography Brain Networks in Patients with Mild Cognitive Impairment and Alzheimer's Disease in Down Syndrome. Brain Connectivity, 2021, 11, 725-733.	0.8	9

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91	Magnetoencephalogram background activity analysis in Alzheimer's disease patients using auto mutual information. , 2006, 2006, 6181-4.		8
92	Analysis of MEG recordings from Alzheimer's disease patients with sample and multiscale entropies. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6184-7.	0.5	8
93	Entropy analysis of MEG background activity in Attention-Deficit/Hyperactivity Disorder. , 2013, 2013, 5057-60.		8
94	Decreased Lempel-Ziv complexity in Alzheimer's disease patients' magnetoencephalograms. , 2005, 2005, 4514-7.		7
95	MEG analysis in Alzheimer's disease computing approximate entropy for different frequency bands. , 2010, 2010, 2379-82.		7
96	Time-modulated enhancing of the fronto-parietal circuits in the very-old elders. Cognitive Brain Research, 2004, 21, 69-76.	3.3	6
97	Prefrontal Brain Magnetic Activity: Effects of Memory Task Demands.. Neuropsychology, 2005, 19, 301-308.	1.0	6
98	Analysis of spontaneous MEG activity in Alzheimer's disease using time-frequency parameters. , 2008, 2008, 5712-5.		6
99	Paroxysmal MEG activity in obsessive compulsive patients without SSRIs therapy. European Psychiatry, 2006, 21, 139-141.	0.1	5
100	Sex Differences in the Complexity of Healthy Older Adultsâ€™ Magnetoencephalograms. Entropy, 2019, 21, 798.	1.1	5
101	Magnetoencephalography for research of auditory cortex. Acta Oto-Laryngologica, 2008, 128, 547-550.	0.3	4
102	Analysis of magnetoencephalography recordings from Alzheimer's disease patients using embedding entropies. , 2014, 2014, 702-5.		4
103	Analysis of spontaneous MEG activity in mild cognitive impairment and Alzheimer's disease using Jensen's divergence. , 2014, 2014, 1501-4.		4
104	Changes on the Modulation of the Startle Reflex in Alcohol-Dependent Patients after 12 Weeks of a Cognitive-Behavioral Intervention. European Addiction Research, 2015, 21, 195-203.	1.3	4
105	Emotional Intelligence as an Evolutive Factor on Adult With ADHD. Journal of Attention Disorders, 2020, 24, 1462-1470.	1.5	4
106	Study of the MEG background activity in Alzheimer's disease patients with scaling analysis methods. , 2009, 2009, 3485-8.		3
107	Synchrony analysis of spontaneous MEG activity in Alzheimer's disease patients. , 2012, 2012, 6188-91.		3
108	BDNF Val66Met Polymorphism and Gamma Band Disruption in Resting State Brain Functional Connectivity: A Magnetoencephalography Study in Cognitively Intact Older Females. Frontiers in Neuroscience, 2018, 12, 684.	1.4	3

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109	Neural Processing to Visual Stimuli in a Three-Choice Reaction-Time Task. Brain and Cognition, 2001, 47, 383-396.	0.8	2
110	Could activity in anterior frontal regions predict performance on declarative memory tests?. NeuroReport, 2005, 16, 337-341.	0.6	2
111	Expectancy and response strategy in a three-choice visual task. Electroencephalography and Clinical Neurophysiology, 1996, 99, 491-493.	0.3	1
112	Magnetoencephalogram Blind Source Separation and Component Selection Procedure to Improve the Diagnosis of Alzheimer's Disease Patients. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5437-40.	0.5	1
113	Nonlinear forecasting measurement of magnetoencephalogram recordings from Alzheimer's disease patients. , 2008, 2008, 2153-6.		1
114	Post-processing for spectral coherence of magnetoencephalogram background activity: Application to Alzheimer's disease. , 2014, 2014, 6345-8.		1
115	Apolipoprotein E É›4â€“related effects on cognition are limited to the Alzheimerâ€™s disease spectrum. GeroScience, 2022, 44, 195-209.	2.1	1
116	Analysis of spontaneous MEG activity in mild cognitive impairment using spectral entropies and disequilibrium measures. , 2010, 2010, 6296-9.		0
117	Analysis of magnetoencephalography signals from Alzheimer's disease patients using granger causality. , 2016, 2016, 724-727.		0
118	Neuropsychological Models of Depression. , 2016, , 249-271.		0
119	Synchronisation likelihood analysis of the effects of age on the brain. , 2017, , .		0
120	MEG spectral patterns in the progression from MCI to AD. Alzheimer's and Dementia, 2020, 16, e047535.	0.4	0
121	A multivariate model of time to conversion from mild cognitive impairment to Alzheimerâ€™s disease. Alzheimer's and Dementia, 2020, 16, e047537.	0.4	0
122	Neurophysiological and Neuropsychological Models of Depression. Frontiers in Neuroscience, 2011, , 27-56.	0.0	0
123	Electrophysiological brain functional network alterations associated with hippocampal volume in healthy and pathological aging. Alzheimer's and Dementia, 2021, 17, .	0.4	0