

Roberto D Pascual-Marqui

List of Publications by Year in descending order

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116
papers

13,364
citations

31976

53
h-index

23533

111
g-index

137
all docs

137
docs citations

137
times ranked

10258
citing authors

#	ARTICLE	IF	CITATIONS
1	Low resolution electromagnetic tomography: a new method for localizing electrical activity in the brain. <i>International Journal of Psychophysiology</i> , 1994, 18, 49-65.	1.0	2,479
2	Segmentation of brain electrical activity into microstates: model estimation and validation. <i>IEEE Transactions on Biomedical Engineering</i> , 1995, 42, 658-665.	4.2	774
3	Anterior Cingulate Activity as a Predictor of Degree of Treatment Response in Major Depression: Evidence From Brain Electrical Tomography Analysis. <i>American Journal of Psychiatry</i> , 2001, 158, 405-415.	7.2	580
4	Assessing interactions in the brain with exact low-resolution electromagnetic tomography. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2011, 369, 3768-3784.	3.4	578
5	Low resolution brain electromagnetic tomography (LORETA) functional imaging in acute, neuroleptic-naive, first-episode, productive schizophrenia. <i>Psychiatry Research - Neuroimaging</i> , 1999, 90, 169-179.	1.8	545
6	Nonsmooth nonnegative matrix factorization (nsNMF). <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2006, 28, 403-415.	13.9	330
7	EEG microstate duration and syntax in acute, medication-naïve, first-episode schizophrenia: a multi-center study. <i>Psychiatry Research - Neuroimaging</i> , 2005, 138, 141-156.	1.8	316
8	Correspondence of event-related potential tomography and functional magnetic resonance imaging during language processing. <i>Human Brain Mapping</i> , 2002, 17, 4-12.	3.6	283
9	Three-dimensional tomography of event-related potentials during response inhibition: evidence for phasic frontal lobe activation. <i>Electroencephalography and Clinical Neurophysiology - Evoked Potentials</i> , 1998, 108, 406-413.	2.0	263
10	Spatial pattern of cerebral glucose metabolism (PET) correlates with localization of intracerebral EEG-generators in Alzheimer's disease. <i>Clinical Neurophysiology</i> , 2000, 111, 1817-1824.	1.5	262
11	Mapping distributed sources of cortical rhythms in mild Alzheimer's disease. A multicentric EEG study. <i>NeuroImage</i> , 2004, 22, 57-67.	4.2	253
12	Affective Judgments of Faces Modulate Early Activity (~160 ms) within the Fusiform Gyri. <i>NeuroImage</i> , 2002, 16, 663-677.	4.2	248
13	The functional significance of EEG microstates—Associations with modalities of thinking. <i>NeuroImage</i> , 2016, 125, 643-656.	4.2	234
14	Brain areas and time course of emotional processing. <i>NeuroImage</i> , 2004, 21, 1189-1203.	4.2	217
15	Focal Cortical Dysfunction and Blood-Brain Barrier Disruption in Patients With Postconcussion Syndrome. <i>Journal of Clinical Neurophysiology</i> , 2005, 22, 1-9.	1.7	213
16	Low-resolution brain electromagnetic tomography revealed simultaneously active frontal and parietal sleep spindle sources in the human cortex. <i>Neuroscience</i> , 2001, 103, 581-592.	2.3	212
17	Visual activation of auditory cortex reflects maladaptive plasticity in cochlear implant users. <i>Brain</i> , 2012, 135, 555-568.	7.6	195
18	The continuous performance test revisited with neuroelectric mapping: impaired orienting in children with attention deficits. <i>Behavioural Brain Research</i> , 1998, 94, 97-110.	2.2	181

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19	Brain electrical tomography in depression: the importance of symptom severity, anxiety, and melancholic features. <i>Biological Psychiatry</i> , 2002, 52, 73-85.	1.3	179
20	Neuroelectric mapping reveals precursor of stop failures in children with attention deficits. <i>Behavioural Brain Research</i> , 1998, 94, 111-125.	2.2	168
21	International Federation of Clinical Neurophysiology (IFCN) " EEG research workgroup: Recommendations on frequency and topographic analysis of resting state EEG rhythms. Part 1: Applications in clinical research studies. <i>Clinical Neurophysiology</i> , 2020, 131, 285-307.	1.5	164
22	Functional connectivity assessed by resting state EEG correlates with cognitive decline of Alzheimer's disease " An eLORETA study. <i>Clinical Neurophysiology</i> , 2016, 127, 1269-1278.	1.5	163
23	Resting-State EEG Source Localization and Functional Connectivity in Schizophrenia-Like Psychosis of Epilepsy. <i>PLoS ONE</i> , 2011, 6, e27863.	2.5	161
24	Biclustering of gene expression data by Non-smooth Non-negative Matrix Factorization. <i>BMC Bioinformatics</i> , 2006, 7, 78.	2.6	158
25	Localization of MDMA-induced brain activity in healthy volunteers using low resolution brain electromagnetic tomography (LORETA). <i>Human Brain Mapping</i> , 2001, 14, 152-165.	3.6	157
26	Reduced Event-Related Current Density in the Anterior Cingulate Cortex in Schizophrenia. <i>NeuroImage</i> , 2001, 13, 589-600.	4.2	151
27	Long-range synchrony of gamma oscillations and auditory hallucination symptoms in schizophrenia. <i>International Journal of Psychophysiology</i> , 2011, 79, 55-63.	1.0	149
28	Reduced functional connectivity between cortical sources in five meditation traditions detected with lagged coherence using EEG tomography. <i>NeuroImage</i> , 2012, 60, 1574-1586.	4.2	134
29	Tonic Activity Level in the Right Prefrontal Cortex Predicts Individuals' Risk Taking. <i>Psychological Science</i> , 2009, 20, 33-38.	3.3	133
30	Source localization of EEG activity during hypnotically induced anxiety and relaxation. <i>International Journal of Psychophysiology</i> , 2001, 41, 143-153.	1.0	126
31	Extracranial localization of intracranial interictal epileptiform activity using LORETA (low) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5 1997, 102, 414-422.	0.3	118
32	Cortical hypoactivation during resting EEG in schizophrenics but not in depressives and schizotypal subjects as revealed by low resolution electromagnetic tomography (LORETA). <i>Psychiatry Research - Neuroimaging</i> , 2002, 116, 95-111.	1.8	111
33	Differential effects of normal aging on sources of standard N1, target N1 and target P300 auditory event-related brain potentials revealed by low resolution electromagnetic tomography (LORETA). <i>Electroencephalography and Clinical Neurophysiology - Evoked Potentials</i> , 1998, 108, 160-174.	2.0	110
34	The EEG microstate topography is predominantly determined by intracortical sources in the alpha band. <i>NeuroImage</i> , 2017, 162, 353-361.	4.2	105
35	Donepezil effects on sources of cortical rhythms in mild Alzheimer's disease: Responders vs. Non-Responders. <i>NeuroImage</i> , 2006, 31, 1650-1665.	4.2	97
36	Correlation between disease severity and brain electric LORETA tomography in Alzheimer's disease. <i>Clinical Neurophysiology</i> , 2007, 118, 186-196.	1.5	93

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37	Event-Related Potential and EEG Measures in Parkinson's Disease without and with Dementia. <i>Dementia and Geriatric Cognitive Disorders</i> , 2000, 11, 39-45.	1.5	86
38	Core networks for visual-concrete and abstract thought content: A brain electric microstate analysis. <i>NeuroImage</i> , 2010, 49, 1073-1079.	4.2	84
39	Neural substrates of normal and impaired preattentive sensory discrimination in large cohorts of nonpsychiatric subjects and schizophrenia patients as indexed by MMN and P3a change detection responses. <i>NeuroImage</i> , 2013, 66, 594-603.	4.2	84
40	Face-elicited ERPs and affective attitude: brain electric microstate and tomography analyses. <i>Clinical Neurophysiology</i> , 2000, 111, 521-531.	1.5	81
41	Detection of EEG-resting state independent networks by eLORETA-ICA method. <i>Frontiers in Human Neuroscience</i> , 2015, 9, 31.	2.0	81
42	Global, Regional, and Local Measures of Complexity of Multichannel Electroencephalography in Acute, Neuroleptic-Naive, First-Break Schizophrenics. <i>Biological Psychiatry</i> , 1998, 43, 794-802.	1.3	80
43	Coherence and phase locking in the scalp EEG and between LORETA model sources, and microstates as putative mechanisms of brain temporo-spatial functional organization. <i>Journal of Physiology (Paris)</i> , 2006, 99, 29-36.	2.1	80
44	bioNMF: a versatile tool for non-negative matrix factorization in biology. <i>BMC Bioinformatics</i> , 2006, 7, 366.	2.6	77
45	Assessing direct paths of intracortical causal information flow of oscillatory activity with the isolated effective coherence (iCoh). <i>Frontiers in Human Neuroscience</i> , 2014, 8, 448.	2.0	77
46	Pre-reflective and reflective self-reference: A spatiotemporal EEG analysis. <i>NeuroImage</i> , 2008, 42, 437-449.	4.2	76
47	Non-invasive localization of P300 sources in normal aging and age-associated memory impairment. <i>Neurobiology of Aging</i> , 2003, 24, 463-479.	3.1	74
48	Mood state and brain electric activity in Ecstasy users. <i>NeuroReport</i> , 2000, 11, 157-162.	1.2	73
49	A Novel Neural Network Technique for Analysis and Classification of EM Single-Particle Images. <i>Journal of Structural Biology</i> , 2001, 133, 233-245.	2.8	72
50	First Valence, Then Arousal: The Temporal Dynamics of Brain Electric Activity Evoked by Emotional Stimuli. <i>Brain Topography</i> , 2008, 20, 143-156.	1.8	71
51	Fatigue-induced increase in intracortical communication between mid/anterior insular and motor cortex during cycling exercise. <i>European Journal of Neuroscience</i> , 2011, 34, 2035-2042.	2.6	68
52	Meditators and Non-Meditators: EEG Source Imaging During Resting. <i>Brain Topography</i> , 2009, 22, 158-165.	1.8	60
53	Effect of the 5-HT1A partial agonist buspirone on regional brain electrical activity in man: a functional neuroimaging study using low-resolution electromagnetic tomography (LORETA). <i>Psychiatry Research - Neuroimaging</i> , 2000, 100, 81-96.	1.8	57
54	Current Source Density Estimation and Interpolation Based on the Spherical Harmonic Fourier Expansion. <i>International Journal of Neuroscience</i> , 1988, 43, 237-249.	1.6	56

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55	Smoothly distributed fuzzy c-means: a new self-organizing map. <i>Pattern Recognition</i> , 2001, 34, 2395-2402.	8.1	52
56	Electrical Sources of P300 Event-Related Brain Potentials Revealed by Low Resolution Electromagnetic Tomography. <i>Neuropsychobiology</i> , 1998, 37, 20-27.	1.9	49
57	Topographic maps, source localization inference, and the reference electrode: comments on a paper by Desmedt et al. <i>Electroencephalography and Clinical Neurophysiology - Evoked Potentials</i> , 1993, 88, 532-533.	2.0	48
58	Comparison of simultaneously recorded [H215O]-PET and LORETA during cognitive and pharmacological activation. <i>Human Brain Mapping</i> , 2004, 22, 83-96.	3.6	48
59	A Parametric Model for Multichannel EEG Spectra. <i>International Journal of Neuroscience</i> , 1988, 40, 89-99.	1.6	46
60	Multichannel EEG fields during and without visual input: frequency domain model source locations and dimensional complexities. <i>Neuroscience Letters</i> , 1997, 226, 49-52.	2.1	44
61	Rivastigmine effects on EEG spectra and three-dimensional LORETA functional imaging in Alzheimer's disease. <i>Psychopharmacology</i> , 2008, 198, 323-332.	3.1	44
62	Functionally aberrant electrophysiological cortical connectivities in first episode medication-naïve schizophrenics from three psychiatry centers. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 635.	2.0	43
63	Mapping Slow Waves by EEG Topography and Source Localization: Effects of Sleep Deprivation. <i>Brain Topography</i> , 2018, 31, 257-269.	1.8	43
64	Brain Regions Activated during an Auditory Discrimination Task in Insomniac Postmenopausal Patients before and after Hormone Replacement Therapy: Low-Resolution Brain Electromagnetic Tomography Applied to Event-Related Potentials. <i>Neuropsychobiology</i> , 2004, 49, 134-153.	1.9	42
65	Spatial Resolution of Neuronal Generators Based on Eeg and Meg Measurements. <i>International Journal of Neuroscience</i> , 1993, 68, 93-105.	1.6	40
66	Neural correlates of age-related visual search decline: A combined ERP and sLORETA study. <i>NeuroImage</i> , 2008, 41, 511-524.	4.2	40
67	Brain electrical field measurements unaffected by linked earlobes reference. <i>Electroencephalography and Clinical Neurophysiology</i> , 1990, 75, 155-160.	0.3	39
68	Event-Related Potential Maps Depend on Prestimulus Brain Electric Microstate Map. <i>International Journal of Neuroscience</i> , 1994, 74, 239-248.	1.6	39
69	Event-related potential map differences depend on the prestimulus microstates. <i>Journal of Medical Engineering and Technology</i> , 1995, 19, 66-69.	1.4	36
70	EEG Source Localization and Global Dimensional Complexity in High- and Low- Hypnotizable Subjects: A Pilot Study. <i>Neuropsychobiology</i> , 2001, 44, 192-198.	1.9	36
71	Zazen meditation and no-task resting EEG compared with LORETA intracortical source localization. <i>Cognitive Processing</i> , 2015, 16, 87-96.	1.4	35
72	Frontal Lobe Epilepsy Associated With Tuberous Sclerosis: Electroencephalographic-Magnetic Resonance Image Fusioning. <i>Journal of Child Neurology</i> , 1998, 13, 33-38.	1.4	34

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73	Functional localization and effective connectivity of cortical theta and alpha oscillatory activity during an attention task. <i>Clinical Neurophysiology Practice</i> , 2017, 2, 193-200.	1.4	32
74	Cortical Sensorimotor Interactions During the Expectancy of a Go/No-Go Task: Effects of Painful Stimuli. <i>Behavioral Neuroscience</i> , 2004, 118, 925-935.	1.2	31
75	EEG Mapping and Low-Resolution Brain Electromagnetic Tomography (LORETA) in Diagnosis and Therapy of Psychiatric Disorders: Evidence for a Key-Lock Principle. <i>Clinical EEG and Neuroscience</i> , 2005, 36, 108-115.	1.7	31
76	Quantitative self-organizing maps for clustering electron tomograms. <i>Journal of Structural Biology</i> , 2002, 138, 114-122.	2.8	30
77	sLORETA intracortical lagged coherence during breath counting in meditation-naïve participants. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 303.	2.0	29
78	Emotion Regulation of Neuroticism: Emotional Information Processing Related to Psychosomatic State Evaluated by Electroencephalography and Exact Low-Resolution Brain Electromagnetic Tomography. <i>Neuropsychobiology</i> , 2015, 71, 34-41.	1.9	25
79	Three- to five-dimensional biomedical multisensor imaging for the assessment of neurological (dys)function. <i>Journal of Digital Imaging</i> , 1996, 9, 185-198.	2.9	19
80	EEG source imaging during two Qigong meditations. <i>Cognitive Processing</i> , 2012, 13, 255-265.	1.4	19
81	The spherical spline Laplacian does not produce artifactually high coherences: comments on two articles by Biggins et al. <i>Electroencephalography and Clinical Neurophysiology</i> , 1993, 87, 62-64.	0.3	17
82	Electrical Sources of P300 Event-Related Brain Potentials Revealed by Low Resolution Electromagnetic Tomography. <i>Neuropsychobiology</i> , 1998, 37, 28-35.	1.9	17
83	EEG sLORETA Functional Imaging During Hypnotic Arm Levitation and Voluntary Arm Lifting. <i>International Journal of Clinical and Experimental Hypnosis</i> , 2012, 60, 31-53.	1.8	17
84	High-frequency Left Prefrontal Transcranial Magnetic Stimulation Modulates Resting EEG Functional Connectivity for Gamma Band Between the Left Dorsolateral Prefrontal Cortex and Precuneus in Depression. <i>Brain Stimulation</i> , 2014, 7, 145-146.	1.6	17
85	Modalities of Thinking: State and Trait Effects on Cross-Frequency Functional Independent Brain Networks. <i>Brain Topography</i> , 2016, 29, 477-490.	1.8	17
86	Probing the "Default Network Interference Hypothesis" With EEG: An RDoC Approach Focused on Attention. <i>Clinical EEG and Neuroscience</i> , 2019, 50, 404-412.	1.7	16
87	Pre-stimulus Brain Activity Is Associated With State-Anxiety Changes During Single-Session Transcranial Direct Current Stimulation. <i>Frontiers in Human Neuroscience</i> , 2019, 13, 266.	2.0	16
88	Reduced brain electric activities of frontal lobe in cortical cerebellar atrophy. <i>Clinical Neurophysiology</i> , 2003, 114, 740-747.	1.5	15
89	Frequency domain source localization shows state-dependent diazepam effects in 47-channel EEG. <i>Journal of Neural Transmission</i> , 1995, 99, 157-171.	2.8	14
90	Comparison of topographic maps and the reference electrode: comments on two papers by Desmedt and collaborators. <i>Electroencephalography and Clinical Neurophysiology - Evoked Potentials</i> , 1993, 88, 530-531.	2.0	13

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91	Imaging the electric neuronal generators of EEG/MEG. , 0, , 49-78.		13
92	Spatial Structure of Brain Electric Fields during Intermittent Photic Stimulation. Neuropsychobiology, 2001, 44, 108-112.	1.9	11
93	Brain electrical source imaging in manic and depressive episodes of bipolar disorder. Bipolar Disorders, 2014, 16, 690-702.	1.9	11
94	Cerebrospinal Fluid Biomarkers of Alzheimer's Disease Correlate With Electroencephalography Parameters Assessed by Exact Low-Resolution Electromagnetic Tomography (eLORETA). Clinical EEG and Neuroscience, 2017, 48, 338-347.	1.7	11
95	Fundamentally altered global- and microstate EEG characteristics in Huntington's disease. Clinical Neurophysiology, 2021, 132, 13-22.	1.5	11
96	Limbic activity in slow wave sleep in a healthy subject with alpha-delta sleep. Psychiatry Research - Neuroimaging, 2001, 107, 165-171.	1.8	10
97	Coherent intracerebral brain oscillations during learned continuous tracking movements. Experimental Brain Research, 2008, 185, 443-451.	1.5	10
98	Unmixing EEG Inverse Solutions Based on Brain Segmentation. Frontiers in Neuroscience, 2018, 12, 325.	2.8	10
99	EEG Resting-State Networks Responsible for Gait Disturbance Features in Idiopathic Normal Pressure Hydrocephalus. Clinical EEG and Neuroscience, 2019, 50, 210-218.	1.7	10
100	Hyperactivation of the Frontal Control Network Revealed by Symptom Provocation in Obsessive-Compulsive Disorder Using EEG Microstate and sLORETA Analyses. Neuropsychobiology, 2019, 77, 176-185.	1.9	10
101	Functional Localization and Functional Connectivity with LORETA. Journal of Neurotherapy, 2001, 4, 35-37.	0.9	9
102	Source localization of brain electric activity during positive, neutral and negative emotional states. International Congress Series, 2002, 1232, 165-173.	0.2	9
103	Short-term meditation modulates EEG activity in subjects with post-traumatic residual disabilities. Clinical Neurophysiology Practice, 2019, 4, 30-36.	1.4	9
104	Multichannel frequency and time-frequency analysis. , 0, , 145-168.		8
105	Low Resolution Brain Electromagnetic Tomography (LORETA). Journal of Neurotherapy, 2001, 4, 31-33.	0.9	7
106	Two-way clustering of gene expression profiles by sparse matrix factorization. , 0, , .		7
107	Evaluation of Electroencephalogram Using Exact Low-Resolution Electromagnetic Tomography During Photic Driving Response in Patients with Migraine. Neuropsychobiology, 2019, 77, 186-191.	1.9	7
108	Source estimation of epileptic activity using eLORETA kurtosis analysis. BMJ Case Reports, 2017, 2017, bcr-2017-222123.	0.5	6

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109	Automated Source Estimation of Scalp EEG Epileptic Activity Using eLORETA Kurtosis Analysis. <i>Neuropsychobiology</i> , 2019, 77, 101-109.	1.9	6
110	Editorial: New Insights on Basic and Clinical Aspects of EEG and MEG Connectome. <i>Frontiers in Human Neuroscience</i> , 2018, 12, 232.	2.0	4
111	Association of cerebrospinal fluid tap-related oscillatory activity and shunt outcome in idiopathic normal-pressure hydrocephalus. <i>Psychogeriatrics</i> , 2015, 15, 191-197.	1.2	3
112	Normalized power variance of eLORETA at high-convexity area predicts shunt response in idiopathic normal pressure hydrocephalus. <i>Scientific Reports</i> , 2020, 10, 13054.	3.3	3
113	Spatiotemporal Properties of the δ Rhythm. , 1990, , 59-90.		3
114	Mindfulness augmentation for anxiety through concurrent use of transcranial direct current stimulation: a randomized double-blind study. <i>Scientific Reports</i> , 2021, 11, 22734.	3.3	2
115	Normalized Power Variance: A new Field Orthogonal to Power in EEG Analysis. <i>Clinical EEG and Neuroscience</i> , 2023, 54, 611-619.	1.7	2
116	The relationship between co-recorded [H215O]-PET and EEG functional tomography (LORETA) before and during pharmacological activation. <i>International Congress Series</i> , 2002, 1232, 247-251.	0.2	1