

Pedro A Valdes-Sosa

List of Publications by Year in descending order

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118
papers

7,424
citations

70961

41
h-index

60497

81
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140
all docs

140
docs citations

140
times ranked

7238
citing authors

#	ARTICLE	IF	CITATIONS
1	Millisecond by Millisecond, Year by Year: Normative EEG Microstates and Developmental Stages. <i>NeuroImage</i> , 2002, 16, 41-48.	2.1	552
2	Effective connectivity: Influence, causality and biophysical modeling. <i>NeuroImage</i> , 2011, 58, 339-361.	2.1	361
3	Decomposing EEG data into space-time-frequency components using Parallel Factor Analysis. <i>NeuroImage</i> , 2004, 22, 1035-1045.	2.1	359
4	Concurrent EEG/fMRI analysis by multiway Partial Least Squares. <i>NeuroImage</i> , 2004, 22, 1023-1034.	2.1	304
5	Intracerebral Sources of Human Auditory-Evoked Potentials. <i>Audiology and Neuro-Otology</i> , 1999, 4, 64-79.	0.6	273
6	Estimating brain functional connectivity with sparse multivariate autoregression. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2005, 360, 969-981.	1.8	267
7	Invariant Reversible QEEG Effects of Anesthetics. <i>Consciousness and Cognition</i> , 2001, 10, 165-183.	0.8	264
8	Effects of spatial selective attention on the steady-state visual evoked potential in the 20-28 Hz range. <i>Cognitive Brain Research</i> , 1998, 6, 249-261.	3.3	249
9	Feature-selective attention enhances color signals in early visual areas of the human brain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 14250-14254.	3.3	247
10	Bayesian model averaging in EEG/MEG imaging. <i>NeuroImage</i> , 2004, 21, 1300-1319.	2.1	223
11	Advancing functional connectivity research from association to causation. <i>Nature Neuroscience</i> , 2019, 22, 1751-1760.	7.1	215
12	Model driven EEG/fMRI fusion of brain oscillations. <i>Human Brain Mapping</i> , 2009, 30, 2701-2721.	1.9	210
13	3D Statistical Parametric Mapping of EEG Source Spectra by Means of Variable Resolution Electromagnetic Tomography (VARETA). <i>Clinical EEG (electroencephalography)</i> , 2001, 32, 47-61.	0.9	195
14	Surface area and cortical thickness descriptors reveal different attributes of the structural human brain networks. <i>NeuroImage</i> , 2010, 50, 1497-1510.	2.1	177
15	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.	0.7	164
16	Electrophysiological Brain Connectivity: Theory and Implementation. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 2115-2137.	2.5	163
17	White matter architecture rather than cortical surface area correlates with the EEG alpha rhythm. <i>NeuroImage</i> , 2010, 49, 2328-2339.	2.1	159
18	A solution to the dynamical inverse problem of EEG generation using spatiotemporal Kalman filtering. <i>NeuroImage</i> , 2004, 23, 435-453.	2.1	139

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19	Nonlinear EEG analysis based on a neural mass model. <i>Biological Cybernetics</i> , 1999, 81, 415-424.	0.6	124
20	Resting state basal ganglia network in idiopathic generalized epilepsy. <i>Human Brain Mapping</i> , 2012, 33, 1279-1294.	1.9	115
21	Critical Comments on EEG Sensor Space Dynamical Connectivity Analysis. <i>Brain Topography</i> , 2019, 32, 643-654.	0.8	114
22	Testing non-linearity and directedness of interactions between neural groups in the macaque inferotemporal cortex. <i>Journal of Neuroscience Methods</i> , 1999, 94, 105-119.	1.3	113
23	Issues and recommendations from the OHBM COBIDAS MEEG committee for reproducible EEG and MEG research. <i>Nature Neuroscience</i> , 2020, 23, 1473-1483.	7.1	113
24	Do specific EEG frequencies indicate different processes during mental calculation?. <i>Neuroscience Letters</i> , 1999, 266, 25-28.	1.0	111
25	Efficient resting-state EEG network facilitates motor imagery performance. <i>Journal of Neural Engineering</i> , 2015, 12, 066024.	1.8	106
26	Which Reference Should We Use for EEG and ERP practice?. <i>Brain Topography</i> , 2019, 32, 530-549.	0.8	101
27	EEG source imaging with spatio-temporal tomographic nonnegative independent component analysis. <i>Human Brain Mapping</i> , 2009, 30, 1898-1910.	1.9	89
28	Bidirectional Control of Absence Seizures by the Basal Ganglia: A Computational Evidence. <i>PLoS Computational Biology</i> , 2014, 10, e1003495.	1.5	87
29	Differentiating Between Psychogenic Nonepileptic Seizures and Epilepsy Based on Common Spatial Pattern of Weighted EEG Resting Networks. <i>IEEE Transactions on Biomedical Engineering</i> , 2014, 61, 1747-1755.	2.5	82
30	Brain electrical tomography (BET) analysis of induced gamma band responses during a simple object recognition task. <i>NeuroImage</i> , 2006, 29, 888-900.	2.1	75
31	EEG/fMRI fusion based on independent component analysis: Integration of data-driven and model-driven methods. <i>Journal of Integrative Neuroscience</i> , 2012, 11, 313-337.	0.8	73
32	Measures of resting state EEG rhythms for clinical trials in Alzheimer's disease: Recommendations of an expert panel. <i>Alzheimer's and Dementia</i> , 2021, 17, 1528-1553.	0.4	64
33	How do reference montage and electrodes setup affect the measured scalp EEG potentials?. <i>Journal of Neural Engineering</i> , 2018, 15, 026013.	1.8	62
34	Approximate average head models for EEG source imaging. <i>Journal of Neuroscience Methods</i> , 2009, 185, 125-132.	1.3	57
35	Current Source Density Estimation and Interpolation Based on the Spherical Harmonic Fourier Expansion. <i>International Journal of Neuroscience</i> , 1988, 43, 237-249.	0.8	56
36	Tensor Analysis and Fusion of Multimodal Brain Images. <i>Proceedings of the IEEE</i> , 2015, 103, 1531-1559.	16.4	56

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37	Improved Prediction of Preterm Delivery Using Empirical Mode Decomposition Analysis of Uterine Electromyography Signals. PLoS ONE, 2015, 10, e0132116.	1.1	55
38	Incorporating priors for EEG source imaging and connectivity analysis. Frontiers in Neuroscience, 2015, 9, 284.	1.4	51
39	Gait Rhythm Fluctuation Analysis for Neurodegenerative Diseases by Empirical Mode Decomposition. IEEE Transactions on Biomedical Engineering, 2017, 64, 52-60.	2.5	50
40	International Brain Initiative: An Innovative Framework for Coordinated Global Brain Research Efforts. Neuron, 2020, 105, 212-216.	3.8	50
41	Spatio-Temporal Autoregressive Models Defined Over Brain Manifolds. Neuroinformatics, 2004, 2, 239-250.	1.5	49
42	Cellular Senescence as the Pathogenic Hub of Diabetes-Related Wound Chronicity. Frontiers in Endocrinology, 2020, 11, 573032.	1.5	49
43	Multimodal Quantitative Neuroimaging Databases and Methods: The Cuban Human Brain Mapping Project. Clinical EEG and Neuroscience, 2011, 42, 149-159.	0.9	47
44	A Parametric Model for Multichannel EEG Spectra. International Journal of Neuroscience, 1988, 40, 89-99.	0.8	46
45	Analysis of Gait Rhythm Fluctuations for Neurodegenerative Diseases by Phase Synchronization and Conditional Entropy. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 291-299.	2.7	42
46	Insulin Resistance at the Crossroad of Alzheimer Disease Pathology: A Review. Frontiers in Endocrinology, 2020, 11, 560375.	1.5	39
47	Exploring event-related brain dynamics with tests on complex valued time-frequency representations. Statistics in Medicine, 2008, 27, 2922-2947.	0.8	34
48	Spatio-temporal Granger causality: A new framework. NeuroImage, 2013, 79, 241-263.	2.1	33
49	Neurodevelopmental effects of childhood malnutrition: A neuroimaging perspective. NeuroImage, 2021, 231, 117828.	2.1	33
50	Crystallized and fluid intelligence are predicted by microstructure of specific white matter tracts. Human Brain Mapping, 2020, 41, 906-916.	1.9	31
51	Effectiveness of music therapy as an aid to neurorestoration of children with severe neurological disorders. Frontiers in Neuroscience, 2015, 9, 427.	1.4	29
52	Simultaneous EEG-fMRI: Trial level spatio-temporal fusion for hierarchically reliable information discovery. NeuroImage, 2014, 99, 28-41.	2.1	28
53	The Cuban Human Brain Mapping Project, a young and middle age population-based EEG, MRI, and cognition dataset. Scientific Data, 2021, 8, 45.	2.4	25
54	Spatio Temporal EEG Source Imaging with the Hierarchical Bayesian Elastic Net and Elitist Lasso Models. Frontiers in Neuroscience, 2017, 11, 635.	1.4	23

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55	Unified Bayesian Estimator of EEG Reference at Infinity: rREST (Regularized Reference Electrode) Tj ETQq1 1 0.784314 rgBT /Oyerlock	1.4	22
56	The Statistics of EEG Unipolar References: Derivations and Properties. Brain Topography, 2019, 32, 696-703.	0.8	21
57	An Age-Adjusted EEG Source Classifier Accurately Detects School-Aged Barbadian Children That Had Protein Energy Malnutrition in the First Year of Life. Frontiers in Neuroscience, 2019, 13, 1222.	1.4	21
58	Characterizing nonlinear relationships in functional imaging data using eigenspace maximal information canonical correlation analysis (emiCCA). NeuroImage, 2015, 109, 388-401.	2.1	20
59	Musical expertise and foreign speech perception. Frontiers in Systems Neuroscience, 2013, 7, 84.	1.2	19
60	Multi-subject hierarchical inverse covariance modelling improves estimation of functional brain networks. NeuroImage, 2018, 178, 370-384.	2.1	19
61	Resting EEG effective connectivity at the sources in developmental dysphonetic dyslexia. Differences with non-specific reading delay. International Journal of Psychophysiology, 2020, 153, 135-147.	0.5	19
62	Introduction: multimodal neuroimaging of brain connectivity. Philosophical Transactions of the Royal Society B: Biological Sciences, 2005, 360, 865-867.	1.8	18
63	Stable Sparse Classifiers Identify qEEG Signatures that Predict Learning Disabilities (NOS) Severity. Frontiers in Neuroscience, 2018, 11, 749.	1.4	18
64	Quantitative EEG Tomography of Early Childhood Malnutrition. Frontiers in Neuroscience, 2018, 12, 595.	1.4	18
65	Mapping Brain Activity with Electrocorticography: Resolution Properties and Robustness of Inverse Solutions. Brain Topography, 2019, 32, 583-598.	0.8	16
66	Identifying Complex Brain Networks Using Penalized Regression Methods. Journal of Biological Physics, 2008, 34, 315-323.	0.7	14
67	3D Statistical Parametric Mapping of quiet sleep EEG in the first year of life. NeuroImage, 2012, 59, 3297-3308.	2.1	13
68	Controversies in EEG Source Imaging and Connectivity: Modeling, Validation, Benchmarking. Brain Topography, 2019, 32, 527-529.	0.8	13
69	Diagnostic Accuracy of Blood-Based Biomarker Panels: A Systematic Review. Frontiers in Aging Neuroscience, 2022, 14, 683689.	1.7	13
70	Granger Causality on Spatial Manifolds: Applications to Neuroimaging. , 0, , 461-491.		12
71	Dissociable early attentional control mechanisms underlying cognitive and affective conflicts. Scientific Reports, 2016, 6, 37633.	1.6	12
72	Clinical and Electrophysiological Differences between Subjects with Dysphonetic Dyslexia and Non-Specific Reading Delay. Brain Sciences, 2018, 8, 172.	1.1	12

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73	A Quantitative EEG Toolbox for the MNI Neuroinformatics Ecosystem: Normative SPM of EEG Source Spectra. <i>Frontiers in Neuroinformatics</i> , 2020, 14, 33.	1.3	12
74	Scalable Bio Marker Combinations for Early Stroke Diagnosis: A Systematic Review. <i>Frontiers in Neurology</i> , 2021, 12, 638693.	1.1	12
75	Resting State Healthy EEG: The First Wave of the Cuban Normative Database. <i>Frontiers in Neuroscience</i> , 2020, 14, 555119.	1.4	11
76	WeBrain: A web-based brainformatics platform of computational ecosystem for EEG big data analysis. <i>NeuroImage</i> , 2021, 245, 118713.	2.1	11
77	ECoG-Comp: An Open Source Platform for Concurrent EEG/ECoG Comparisons Applications to Connectivity Studies. <i>Brain Topography</i> , 2019, 32, 550-568.	0.8	10
78	Brain status modeling with non-negative projective dictionary learning. <i>NeuroImage</i> , 2020, 206, 116226.	2.1	10
79	Multivariate Analysis of Joint Motion Data by Kinect: Application to Parkinson's Disease. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 181-190.	2.7	10
80	Burn injury insulin resistance and central nervous system complications: A review. <i>Burns Open</i> , 2020, 4, 41-52.	0.2	10
81	Gait Influence Diagrams in Parkinson's Disease. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 1257-1267.	2.7	9
82	Reentrant Information Flow in Electrophysiological Rat Default Mode Network. <i>Frontiers in Neuroscience</i> , 2017, 11, 93.	1.4	9
83	Junior temperament character inventory together with quantitative EEG discriminate children with attention deficit hyperactivity disorder combined subtype from children with attention deficit hyperactivity disorder combined subtype plus oppositional defiant disorder. <i>International Journal of Psychophysiology</i> , 2018, 130, 9-20.	0.5	9
84	EEG measures for clinical research in major vascular cognitive impairment: recommendations by an expert panel. <i>Neurobiology of Aging</i> , 2021, 103, 78-97.	1.5	9
85	Movement Symmetry Assessment by Bilateral Motion Data Fusion. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 225-236.	2.5	8
86	Early protein energy malnutrition impacts life-long developmental trajectories of the sources of EEG rhythmic activity. <i>NeuroImage</i> , 2022, 254, 119144.	2.1	8
87	A comparison of non-linear non-parametric models for epilepsy data. <i>Computers in Biology and Medicine</i> , 2001, 31, 41-57.	3.9	7
88	Results Obtained by Combining Different Estimators of EEG Connectivity Become Uninterpretable If the Underlying Models Are Incompatible. <i>Brain Connectivity</i> , 2018, 8, 57-59.	0.8	7
89	ERP Source Analysis Guided by fMRI During Familiar Face Processing. <i>Brain Topography</i> , 2019, 32, 720-740.	0.8	7
90	Gene expression rearrangements denoting changes in the biological state. <i>Scientific Reports</i> , 2021, 11, 8470.	1.6	6

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91	A call for international research on COVID-19-induced brain dysfunctions. National Science Review, 2021, 8, nwab190.	4.6	5
92	Editorial: Through a Glass, Darkly: The Influence of the EEG Reference on Inference About Brain Function and Disorders. Frontiers in Neuroscience, 2019, 13, 1341.	1.4	4
93	Mathematical modeling and forecasting of COVID-19: experience in Santiago de Cuba province. Revista Mexicana De Física, 2021, 67, 123-136.	0.2	4
94	Seeking Biomarkers of Early Childhood Malnutrition's Long-term Effects. MEDICC Review, 2018, 20, 43.	0.5	4
95	Anatomical connections underlying personally-familiar face processing. PLoS ONE, 2019, 14, e0222087.	1.1	3
96	The Statistical Analysis of Brain Images. , 1990, , 405-434.		3
97	The Physical Basis of Electrophysiological Brain Imaging: Exploratory Techniques for Source Localization and Waveshape Analysis of Functional Components of Electrical Brain Activity. , 1990, , 435-459.		3
98	Spatiotemporal Properties of the δ Rhythm. , 1990, , 59-90.		3
99	Decomposing EEG Data into Space-Time-Frequency Components Using Parallel Factor Analysis and Its Relation with Cerebral Blood Flow. Lecture Notes in Computer Science, 2007, , 802-810.	1.0	3
100	The Effect of Neuroepo on Cognition in Parkinson's Disease Patients Is Mediated by Electroencephalogram Source Activity. Frontiers in Neuroscience, 0, 16, .	1.4	3
101	Neuroimaging and global health. NeuroImage, 2022, 260, 119458.	2.1	3
102	Gait Analysis by Causal Decomposition. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 953-964.	2.7	2
103	Stepwise Covariance-Free Common Principal Components (CF-CPC) With an Application to Neuroscience. Frontiers in Neuroscience, 2021, 15, 750290.	1.4	2
104	Impact of Early Childhood Malnutrition on Adult Brain Function: An Evoked-Related Potentials Study. Frontiers in Human Neuroscience, 0, 16, .	1.0	2
105	The many levels of causal brain network discovery. Physics of Life Reviews, 2015, 15, 145-147.	1.5	1
106	F168. An EEG fingerprint of early protein-energy malnutrition. Clinical Neurophysiology, 2018, 129, e131.	0.7	1
107	Erol BaÅar and the scientific revolution in nonlinear brain dynamics: A selective review. International Journal of Psychophysiology, 2020, 158, 419-431.	0.5	1
108	Statistically Identifying and Removing the Spectral Differences Between EEG and MEG. International Journal of Psychophysiology, 2021, 168, S96-S97.	0.5	1

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109	Auto-QCLF: A Quick and Reliable EEG Lead Field Quality Control for Big Databases. International Journal of Psychophysiology, 2021, 168, S183-S184.	0.5	1
110	Information Entropy-Based Penalty for PARAFAC Analysis of Resting EEG. , 2008, , 443-446.		1
111	Flanker Task-Elicited Event-Related Potential Sources Reflect Human Recombinant Erythropoietin Differential Effects on Parkinson's Patients. Parkinson's Disease, 2020, 2020, 1-10.	0.6	1
112	A Functional MRI and Magneto/Electro Source Imaging Procedure for Cognitive and Pre-surgical Evaluation. Procedia, Social and Behavioral Sciences, 2013, 97, 12-20.	0.5	0
113	Automatic Detection of Fiducial Landmarks Toward the Development of an Application for Digitizing the Locations of EEG Electrodes: Occipital Structure Sensor-Based Work. Frontiers in Neuroscience, 2021, 15, 526257.	1.4	0
114	Estimating Overlapped Event-Related Response With EM Algorithm. International Journal of Psychophysiology, 2021, 168, S109-S110.	0.5	0
115	Analysis of Causal Relationship Between Different Cortical Regions Measured by Transfer Entropy. International Journal of Psychophysiology, 2021, 168, S129.	0.5	0
116	Registration of Electrophysiological Source Imaging With the BigBrain Using HCP Compatible Pipelines. International Journal of Psychophysiology, 2021, 168, S188.	0.5	0
117	Fusión de neuroimágenes de PET/CT utilizando un esquema basado en Wavelet y la transformada discreta de Haar. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2020, 18, 75.	0.6	0
118	Neural alterations in working memory of mild-to-moderate TBI: An fMRI study in Malaysia. Journal of Neuroscience Research, 2022, 100, 915-932.	1.3	0