Hernando C Ombao

List of Publications by Year
in descending order

131	3,922	109264	138417
papers	citations	35 h-index	58 g-index

132	132	132	4513
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Human regional cerebral glucose metabolism during nonâ€rapid eye movement sleep in relation to waking. Brain, 2002, 125, 1105-1115.	3.7	306
2	Acute Stress Affects Heart Rate Variability During Sleep. Psychosomatic Medicine, 2004, 66, 56-62.	1.3	288
3	Prevalence of Obesity and Weight Change During Treatment in Patients With Bipolar I Disorder. Journal of Clinical Psychiatry, 2002, 63, 528-533.	1.1	172
4	SLEX Analysis of Multivariate Nonstationary Time Series. Journal of the American Statistical Association, 2005, 100, 519-531.	1.8	141
5	Communicating uncertainty can lead to less decision satisfaction: a necessary cost of involving patients in shared decision making?. Health Expectations, 2011, 14, 84-91.	1.1	140
6	Automatic Statistical Analysis of Bivariate Nonstationary Time Series. Journal of the American Statistical Association, 2001, 96, 543-560.	1.8	133
7	Penalized least squares regression methods and applications to neuroimaging. NeuroImage, 2011, 55, 1519-1527.	2.1	123
8	A Multi-Domain Connectome Convolutional Neural Network for Identifying Schizophrenia From EEG Connectivity Patterns. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 1333-1343.	3.9	97
9	Fronto-Temporal Spontaneous Resting State Functional Connectivity in Pediatric Bipolar Disorder. Biological Psychiatry, 2010, 68, 839-846.	0.7	91
10	Regional Brain Glucose Metabolism During Morning and Evening Wakefulness in Humans: Preliminary Findings. Sleep, 2004, 27, 1245-1254.	0.6	89
11	Patterns of white matter injury in HIV infection after partial immune reconstitution: a DTI tract-based spatial statistics study. Journal of NeuroVirology, 2013, 19, 10-23.	1.0	79
12	Classification of functional brain images with a spatio-temporal dissimilarity map. NeuroImage, 2006, 33, 63-71.	2.1	70
13	Functional connectivity: Shrinkage estimation and randomization test. NeuroImage, 2010, 49, 3005-3014.	2.1	68
14	Sleep and treatment response in depression: new findings using power spectral analysis. Psychiatry Research, 2001, 103, 51-67.	1.7	67
15	Evolutionary Coherence of Nonstationary Signals. IEEE Transactions on Signal Processing, 2008, 56, 2259-2266.	3.2	67
16	Clinical contributors to cerebral white matter integrity in HIV-infected individuals. Journal of NeuroVirology, 2011, 17, 477-486.	1.0	67
17	The SLEX Model of a Non-Stationary Random Process. Annals of the Institute of Statistical Mathematics, 2002, 54, 171-200.	0.5	66
18	Quantifying temporal correlations: A testâ€“retest evaluation of functional connectivity in resting-state fMRI. NeuroImage, 2013, 65, 231-241.	2.1	65

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19	Topological data analysis of single-trial electroencephalographic signals. Annals of Applied Statistics, 2018, 12, 1506-1534.	0.5	65
20	Nonfilter and filter cigarette consumption and the incidence of lung cancer by histological type in Japan and the United States: Analysis of 30â€year data from populationâ€based cancer registries. International Journal of Cancer, 2011, 128, 1918-1928.	2.3	59
21	Detection of Changes in Multivariate Time Series With Application to EEG Data. Journal of the American Statistical Association, 2015, 110, 1197-1216.	1.8	58
22	Discrimination and Classification of Nonstationary Time Series Using the SLEX Model. Journal of the American Statistical Association, 2004, 99, 763-774.	1.8	57
23	Plasma cytokine concentrations associated with HIV/hepatitis C coinfection are related to attention, executive and psychomotor functioning. Journal of Neuroimmunology, 2011, 233, 204-210.	1.1	55
24	Psychophysiological Reactivity and Coping Styles Influence the Effects of Acute Stress Exposure on Rapid Eye Movement Sleep. Psychosomatic Medicine, 2003, 65, 857-864.	1.3	54
25	Estimating Dynamic Connectivity States in fMRI Using Regime-Switching Factor Models. IEEE Transactions on Medical Imaging, 2018, 37, 1011-1023.	5.4	50
26	Exact topological inference of the resting-state brain networks in twins. Network Neuroscience, 2019, 3, 674-694.	1.4	45
27	The generalized shrinkage estimator for the analysis of functional connectivity of brain signals. Annals of Applied Statistics, 2011, 5, .	0.5	43
28	Modeling Effective Connectivity in High-Dimensional Cortical Source Signals. IEEE Journal on Selected Topics in Signal Processing, 2016, 10, 1315-1325.	7.3	43
29	A robust interrupted time series model for analyzing complex health care intervention data. Statistics in Medicine, 2017, 36, 4660-4676.	0.8	43
30	Modeling the Evolution of Dynamic Brain Processes During an Associative Learning Experiment. Journal of the American Statistical Association, 2016, 111, 1440-1453.	1.8	42
31	A Unified Estimation Framework for State-Related Changes in Effective Brain Connectivity. IEEE Transactions on Biomedical Engineering, 2017, 64, 844-858.	2.5	42
32	Estimating Time-Evolving Partial Coherence Between Signals via Multivariate Locally Stationary Wavelet Processes. IEEE Transactions on Signal Processing, 2014, 62, 5240-5250.	3.2	41
33	Time-frequency spectral estimation of multichannel EEG using the Auto-SLEX method. IEEE Transactions on Biomedical Engineering, 2002, 49, 988-996.	2.5	40
34	Smoothing Spline ANOVA for Time-Dependent Spectral Analysis. Journal of the American Statistical Association, 2003, 98, 643-652.	1.8	39
35	A Markov-Switching Model Approach to Heart Sound Segmentation and Classification. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 705-716.	3.9	39
36	Statistical models for brain signals with properties that evolve across trials. NeuroImage, 2018, 180, 609-618.	2.1	38

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37	Short-segment Heart Sound Classification Using an Ensemble of Deep Convolutional Neural Networks. , 2019, , .		38
38	Consistent Classification of Nonstationary Time Series Using Stochastic Wavelet Representations. Journal of the American Statistical Association, 2009, 104, 299-312.	1.8	35
39	A â€œgender blindâ€•relationship of lean body mass and blood pressure in the Tecumseh study. American Journal of Hypertension, 2002, 15, 258-263.	1.0	33
40	The impact of physicians' reactions to uncertainty on patients' decision satisfaction. Journal of Evaluation in Clinical Practice, 2011, 17, 575-578.	0.9	33
41	Spatio-Spectral Mixed-Effects Model for Functional Magnetic Resonance Imaging Data. Journal of the American Statistical Association, 2012, 107, 568-577.	1.8	31
42	Natural Climate Oscillations may Counteract Red Sea Warming Over the Coming Decades. Geophysical Research Letters, 2019, 46, 3454-3461.	1.5	30
43	Statistical tests for fMRI based on experimental randomization. NeuroImage, 2003, 19, 226-232.	2.1	28
44	Time-dependent frequency domain principal components analysis of multichannel non-stationary signals. Computational Statistics and Data Analysis, 2006, 50, 2339-2360.	0.7	28
45	Investigating brain connectivity using mixed effects vector autoregressive models. NeuroImage, 2012, 59, 3347-3355.	2.1	27
46	Strength and stability of EEG functional connectivity predict treatment response in infants with epileptic spasms. Clinical Neurophysiology, 2018, 129, 2137-2148.	0.7	27
47	FreSpeD: Frequency-Specific Change-Point Detection in Epileptic Seizure Multi-Channel EEG Data. Journal of the American Statistical Association, 2019, 114, 115-128.	1.8	27
48	Hierarchical vector auto-regressive models and their applications to multi-subject effective connectivity. Frontiers in Computational Neuroscience, 2013, 7, 159.	1.2	26
49	Classification of EEG-based Effective Brain Connectivity in Schizophrenia using Deep Neural Networks. , 2019, , .		21
50	Sequential Change-Point Detection Methods for Nonstationary Time Series. Technometrics, 2008, 50, 40-52.	1.3	20
51	Understanding the Impact of Stroke on Brain Motor Function: A Hierarchical Bayesian Approach. Journal of the American Statistical Association, 2016, 111, 549-563.	1.8	20
52	The Hierarchical Spectral Merger Algorithm: A New Time Series Clustering Procedure. Journal of Classification, 2018, 35, 71-99.	1.2	19
53	Detecting Dynamic Community Structure in Functional Brain Networks Across Individuals: A Multilayer Approach. IEEE Transactions on Medical Imaging, 2021, 40, 468-480.	5.4	19
54	Evolutionary Factor Analysis of Replicated Time Series. Biometrics, 2012, 68, 825-836.	0.8	18

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55	A Scalable Multi-Resolution Spatio-Temporal Model for Brain Activation and Connectivity in Fmri Data. Biometrics, 2018, 74, 823-833.	0.8	18
56	Tree-Structured Wavelet Estimation in a Mixed Effects Model for Spectra of Replicated Time Series. Journal of the American Statistical Association, 2010, 105, 634-646.	1.8	17
57	A Bayesian Double Fusion Model for Resting-State Brain Connectivity Using Joint Functional and Structural Data. Brain Connectivity, 2017, 7, 219-227.	0.8	16
58	Timeâ€Dependent Dualâ€Frequency Coherence in Multivariate Nonâ€Stationary Time Series. Journal of Time Series Analysis, 2019, 40, 3-22.	0.7	16
59	Assessing the age- and gender-dependence of the severity and case fatality rates of COVID-19 disease in Spain. Wellcome Open Research, 2020, 5, 117.	0.9	16
60	Assessing health care interventions via an interrupted time series model: Study power and design considerations. Statistics in Medicine, 2019, 38, 1734-1752.	0.8	15
61	Timeâ€“frequency discriminant analysis of MEG signals. NeuroImage, 2008, 40, 174-186.	2.1	14
62	Modeling and Estimation of Covariance of Replicated Modulated Cyclical Time Series. IEEE Transactions on Signal Processing, 2013, 61, 1944-1957.	3.2	14
63	Effect of a web-based curriculum on primary care practice: basic skin cancer triage trial. Family Medicine, 2013, 45, 558-68.	0.3	14
64	Classification of multivariate non-stationary signals: The SLEX-shrinkage approach. Journal of Statistical Planning and Inference, 2010, 140, 3754-3763.	0.4	12
65	Editorial: Special issue on time series analysis in the biological sciences. Journal of Time Series Analysis, 2012, 33, 701-703.	0.7	12
66	Masking Effects of Posture and Sleep Onset on Core Body Temperature Have Distinct Circadian Rhythms: Results from a 90-Min/Day Protocol. Journal of Biological Rhythms, 2002, 17, 447-462.	1.4	11
67	An exploratory data analysis of electroencephalograms using the functional boxplots approach. Frontiers in Neuroscience, 2015, 9, 282.	1.4	11
68	Coherence-based time series clustering for statistical inference and visualization of brain connectivity. Annals of Applied Statistics, 2019, 13, .	0.5	11
69	Modeling High-Dimensional Multichannel Brain Signals. Statistics in Biosciences, 2019, 11, 91-126.	0.6	11
70	Comparing extent of activation: a robust permutation approach. NeuroImage, 2005, 24, 715-722.	2.1	10
71	Regularized matrix data clustering and its application to image analysis. Biometrics, 2021, 77, 890-902.	0.8	10
72	Evolutionary State-Space Model and Its Application to Time-Frequency Analysis of Local Field Potentials. Statistica Sinica, 2020, 30, 1561-1582.	0.2	10

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73	A Semiparametric Bayesian Model for Detecting Synchrony Among Multiple Neurons. Neural Computation, 2014, 26, 2025-2051.	1.3	9
74	A Bayesian Variable Selection Approach Yields Improved Detection of Brain Activation From Complex-Valued fMRI. Journal of the American Statistical Association, 2018, 113, 1395-1410.	1.8	9
75	Inference on Long-Range Temporal Correlations in Human EEG Data. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 1070-1079.	3.9	9
76	Statistical model for dynamically-changing correlation matrices with application to brain connectivity. Journal of Neuroscience Methods, 2020, 331, 108480.	1.3	9
77	Probabilistic projection of the sex ratio at birth and missing female births by State and Union Territory in India. PLoS ONE, 2020, 15, e0236673.	1.1	9
78	Exploring dependence between brain signals in a monkey during learning. Journal of Time Series Analysis, 2012, 33, 771-778.	0.7	8
79	Autoregressive processes with dataâ€driven regime switching. Journal of Time Series Analysis, 2009, 30, 505-533.	0.7	7
80	Continuum of Mammography Use among US Women: Classification Tree Analysis. American Journal of Health Behavior, 2014, 38, 492-500.	0.6	7
81	Spectral synchronicity in brain signals. Statistics in Medicine, 2018, 37, 2855-2873.	0.8	7
82	Integer-valued autoregressive processes with prespecified marginal and innovation distributions: a novel perspective. Stochastic Models, 2022, 38, 70-90.	0.3	7
83	Topological seizure origin detection in electroencephalographic signals. , 2015, 2015, 351-354.		6
84	Simultaneous control of error rates in fMRI data analysis. NeuroImage, 2015, 123, 102-113.	2.1	6
85	Statistical methods and challenges in connectome genetics. Statistics and Probability Letters, 2018, 136, 83-86.	0.4	6
86	Modeling Binary Time Series Using Gaussian Processes with Application to Predicting Sleep States. Journal of Classification, 2018, 35, 549-579.	1.2	6
87	System- and Unit-Level Care Quality Outcome Improvements After Integrating Clinical Nurse Leaders Into Frontline Care Delivery. Journal of Nursing Administration, 2019, 49, 315-322.	0.7	6
88	A hierarchical bayesian model for differential connectivity in multi-trial brain signals. Econometrics and Statistics, 2020, 15, 117-135.	0.4	6
89	Brain waves analysis via a non-parametric Bayesian mixture of autoregressive kernels. Computational Statistics and Data Analysis, 2022, 174, 107409.	0.7	6
90	Local Spectral Envelope: An Approach Using Dyadic Tree-Based Adaptive Segmentation. Annals of the Institute of Statistical Mathematics, 2002, 54, 201-223.	0.5	5

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91	Dynamic classification using multivariate locally stationary wavelet processes. Signal Processing, 2018, 152, 118-129.	2.1	5
92	Intrinsic Data Depth for Hermitian Positive Definite Matrices. Journal of Computational and Graphical Statistics, 2019, 28, 427-439.	0.9	5
93	Functional Time Series Prediction Under Partial Observation of the Future Curve. Journal of the American Statistical Association, 2023, 118, 315-326.	1.8	5
94	Flexible Bayesian Dynamic Modeling of Correlation and Covariance Matrices. Bayesian Analysis, 2020, 15, 1199-1228.	1.6	5
95	Estimation and probabilistic projection of levels and trends in the sex ratio at birth in seven provinces of Nepal from 1980 to 2050: a Bayesian modeling approach. BMC Public Health, 2022, 22, 358.	1.2	5
96	Flexible bivariate INGARCH process with a broad range of contemporaneous correlation. Journal of Time Series Analysis, 2023, 44, 206-222.	0.7	5
97	A useful tool for statistical estimation: genetic algorithms. Journal of Statistical Computation and Simulation, 2005, 75, 237-251.	0.7	4
98	A Dynamic Bayesian Model for Characterizing Cross-Neuronal Interactions During Decision-Making. Journal of the American Statistical Association, 2016, 111, 459-471.	1.8	4
99	Multi-Scale Factor Analysis of High-Dimensional Functional Connectivity in Brain Networks. IEEE Transactions on Network Science and Engineering, 2020, 7, 449-465.	4.1	4
100	RITS: a toolbox for assessing complex interventions via interrupted time series models. BMC Medical Research Methodology, 2021, 21, 143.	1.4	4
101	Separating Stimulus-Induced and Background Components of Dynamic Functional Connectivity in Naturalistic fMRI. IEEE Transactions on Medical Imaging, 2022, 41, 1431-1442.	5.4	4
102	Modeling dependence via copula of functionals of Fourier coefficients. Test, 2020, 29, 1125-1144.	0.7	3
103	Lattice Paths for Persistent Diagrams. Lecture Notes in Computer Science, 2021, 12929, 77-86.	1.0	3
104	Semiparametric time series models driven by latent factor. International Journal of Forecasting, 2021, 37, 1463-1479.	3.9	3
105	Evaluation of monofractal and multifractal properties of interâ€beat (Râ€R) intervals in cardiac signals for differentiation between the normal and pathology classes. IET Signal Processing, 2019, 13, 798-805.	0.9	3
106	Markov-switching state-space models with applications to neuroimaging. Computational Statistics and Data Analysis, 2022, 174, 107525.	0.7	3
107	Exploratory Analysis of Brain Signals through Low Dimensional Embedding. , 2019, , .		2
108	Estimating Brain Connectivity Using Copula Gaussian Graphical Models. , 2019, , .		2

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109	Modeling non-linear spectral domain dependence using copulas with applications to rat local field potentials. Econometrics and Statistics, 2020, 15, 85-103.	0.4	2
110	Modeling Spectral Properties in Stationary Processes of Varying Dimensions with Applications to Brain Local Field Potential Signals. Entropy, 2020, 22, 1375.	1.1	2
111	Multi-Chaotic Analysis of Inter-Beat (R-R) Intervals in Cardiac Signals for Discrimination between Normal and Pathological Classes. Entropy, 2021, 23, 112.	1.1	2
112	Sex ratio at birth in Vietnam among six subnational regions during 1980â€“2050, estimation and probabilistic projection using a Bayesian hierarchical time series model with 2.9 million birth records. PLoS ONE, 2021, 16, e0253721.	1.1	2
113	Ensemble Kalman filtering with coloured observation noise. Quarterly Journal of the Royal Meteorological Society, 2021, 147, 4408-4424.	1.0	2
114	Break Point Detection for Functional Covariance. Scandinavian Journal of Statistics, 0, , .	0.9	2
115	Frequency-Specific Non-Linear Granger Causality in a Network of Brain Signals. , 2022, , .		2
116	Analysis of Multivariate Nonstationary Time Series Using the Localized Fourier Library. Handbook of Statistics, 2012, 30, 415-444.	0.4	1
117	Fisher information matrix of binary time series. Metron, 2018, 76, 287-304.	0.6	1
118	Detecting State Changes in Community Structure of Functional Brain Networks Using a Markov-Switching Stochastic Block Model. , 2019, , .		1
119	Modeling Local Field Potentials with Regularized Matrix Data Clustering. , 2019, , .		1
120	Clustering Brain Signals: a Robust Approach Using Functional Data Ranking. Journal of Classification, 2021, 38, 425-442.	1.2	1
121	OUP accepted manuscript. Biometrika, 2021, 108, 775-778.	1.3	1
122	The negative binomial process: A tractable model with composite likelihoodâ€based inference. Scandinavian Journal of Statistics, 2022, 49, 568-592.	0.9	1
123	Ridgeâ€penalized adaptive Mantel test and its application in imaging genetics. Statistics in Medicine, 2021, 40, 5313-5332.	0.8	1
124	Modeling Dynamic Functional Connectivity with Latent Factor Gaussian Processes. Advances in Neural Information Processing Systems, 2019, 32, 8263-8273.	2.8	1
125	Bayesian Spatiotemporal Modeling on Complex-Valued fMri Signals via Kernel Convolutions. Biometrics, 2023, 79, 616-628.	0.8	1
126	Wavelet testing for a replicate-effect within an ordered multiple-trial experiment. Computational Statistics and Data Analysis, 2022, , 107456.	0.7	1

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127	Introduction to the special issue on best papers from the SLDM competition. Statistical Analysis and Data Mining, 2011, 4, 565-566.	1.4	0
128	Spectral Approach to Modeling Dependence in Multivariate Time Series. Journal of Physics: Conference Series, 2019, 1417, 012007.	0.3	0
129	Shape-preserving prediction for stationary functional time series. Electronic Journal of Statistics, 2021, 15, .	0.4	0
130	Ridge Penalization in High-Dimensional Testing With Applications to Imaging Genetics. Frontiers in Neuroscience, 2022, 16, 836100.	1.4	0
131	A Generalized Interrupted Time Series Model for Assessing Complex Health Care Interventions. Statistics in Biosciences, 0, , .	0.6	0