Florian Mormann

List of Publications by Year
in descending order

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91	11,285	53794 45	49909 87
papers	citations	h-index	g-index

95	95	95	9482
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Indications of nonlinear deterministic and finite-dimensional structures in time series of brain electrical activity: Dependence on recording region and brain state. Physical Review E, 2001, 64, 061907.	2.1	2,068
2	Mean phase coherence as a measure for phase synchronization and its application to the EEG of epilepsy patients. Physica D: Nonlinear Phenomena, 2000, 144, 358-369.	2.8	1,099
3	Seizure prediction: the long and winding road. Brain, 2007, 130, 314-333.	7.6	919
4	On the predictability of epileptic seizures. Clinical Neurophysiology, 2005, 116, 569-587.	1.5	442
5	Epileptic seizures are preceded by a decrease in synchronization. Epilepsy Research, 2003, 53, 173-185.	1.6	407
6	Memory formation by neuronal synchronization. Brain Research Reviews, 2006, 52, 170-182.	9.0	402
7	High-frequency neural activity and human cognition: Past, present and possible future of intracranial EEG research. Progress in Neurobiology, 2012, 98, 279-301.	5.7	383
8	Phase/amplitude reset and theta-gamma interaction in the human medial temporal lobe during a continuous word recognition memory task. Hippocampus, 2005, 15, 890-900.	1.9	344
9	Persistent cognitive impairment, hippocampal atrophy and EEG changes in sepsis survivors. Journal of Neurology, Neurosurgery and Psychiatry, 2013, 84, 62-69.	1.9	341
10	Sustained Neural Activity Patterns during Working Memory in the Human Medial Temporal Lobe. Journal of Neuroscience, 2007, 27, 7807-7816.	3.6	240
11	Sepsis causes neuroinflammation and concomitant decrease of cerebral metabolism. Journal of Neuroinflammation, 2008, 5, 38.	7.2	223
12	Memory Consolidation by Replay of Stimulus-Specific Neural Activity. Journal of Neuroscience, 2013, 33, 19373-19383.	3.6	214
13	Latency and Selectivity of Single Neurons Indicate Hierarchical Processing in the Human Medial Temporal Lobe. Journal of Neuroscience, 2008, 28, 8865-8872.	3.6	188
14	Automated detection of a preseizure state based on a decrease in synchronization in intracranial electroencephalogram recordings from epilepsy patients. Physical Review E, 2003, 67, 021912.	2.1	184
15	Its Possible Use for Interictal Focus Localization, Seizure Anticipation, and Prevention. Journal of Clinical Neurophysiology, 2001, 18, 209-222.	1.7	173
16	Measuring synchronization in coupled model systems: A comparison of different approaches. Physica D: Nonlinear Phenomena, 2007, 225, 29-42.	2.8	171
17	Seizure prediction for therapeutic devices: A review. Journal of Neuroscience Methods, 2016, 260, 270-282.	2.5	146
18	Neuronal Shot Noise and Brownian 1/f2 Behavior in the Local Field Potential. PLoS ONE, 2009, 4, e4338.	2.5	142

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19	On-line, voluntary control of human temporal lobe neurons. Nature, 2010, 467, 1104-1108.	27.8	140
20	All together now: Analogies between chimera state collapses and epileptic seizures. Scientific Reports, 2016, 6, 23000.	3.3	133
21	A category-specific response to animals in the right human amygdala. Nature Neuroscience, 2011, 14, 1247-1249.	14.8	129
22	Seizure prediction by nonlinear EEG analysis. IEEE Engineering in Medicine and Biology Magazine, 2003, 22, 57-63.	0.8	127
23	Monitoring spike train synchrony. Journal of Neurophysiology, 2013, 109, 1457-1472.	1.8	127
24	Testing the null hypothesis of the nonexistence of a preseizure state. Physical Review E, 2003, 67, 010901.	2.1	122
25	Synergy of Direct and Indirect Cholinergic Septo-Hippocampal Pathways Coordinates Firing in Hippocampal Networks. Journal of Neuroscience, 2015, 35, 8394-8410.	3.6	118
26	Bivariate surrogate techniques: Necessity, strengths, and caveats. Physical Review E, 2003, 68, 066202.	2.1	107
27	Persistent Single-Neuron Activity during Working Memory in the Human Medial Temporal Lobe. Current Biology, 2017, 27, 1026-1032.	3.9	104
28	Left hippocampal pathology is associated with atypical language lateralization in patients with focal epilepsy. Brain, 2006, 129, 346-351.	7.6	103
29	Single Neurons in the Human Brain Encode Numbers. Neuron, 2018, 100, 753-761.e4.	8.1	98
30	Seizure prediction: Any better than chance?. Clinical Neurophysiology, 2009, 120, 1465-1478.	1.5	87
31	Prospective use of subtraction ictal SPECT coregistered to MRI (SISCOM) in presurgical evaluation of epilepsy. Epilepsia, 2011, 52, 2239-2248.	5.1	78
32	What is the present-day EEG evidence for a preictal state?. Epilepsy Research, 2011, 97, 243-251.	1.6	75
33	Improved spatial characterization of the epileptic brain by focusing on nonlinearity. Epilepsy Research, 2006, 69, 30-44.	1.6	74
34	Reliable Analysis of Single-Unit Recordings from the Human Brain under Noisy Conditions: Tracking Neurons over Hours. PLoS ONE, 2016, 11, e0166598.	2.5	73
35	State-of-the-Art of Seizure Prediction. Journal of Clinical Neurophysiology, 2007, 24, 147-153.	1.7	72
36	Measure profile surrogates: A method to validate the performance of epileptic seizure prediction algorithms. Physical Review E, 2004, 69, 061915.	2.1	66

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37	Seizure anticipation: from algorithms to clinical practice. Current Opinion in Neurology, 2006, 19, 187-193.	3.6	64
38	Independent delta/theta rhythms in the human hippocampus and entorhinal cortex. Frontiers in Human Neuroscience, 2008, 2, 3.	2.0	64
39	Controversies in epilepsy: Debates held during the Fourth International Workshop on Seizure Prediction. Epilepsy and Behavior, 2010, 19, 4-16.	1.7	61
40	MEASURING THE DIRECTIONALITY OF COUPLING: PHASE VERSUS STATE SPACE DYNAMICS AND APPLICATION TO EEG TIME SERIES. International Journal of Neural Systems, 2007, 17, 139-148.	5.2	58
41	Selectivity of pyramidal cells and interneurons in the human medial temporal lobe. Journal of Neurophysiology, 2011, 106, 1713-1721.	1.8	57
42	Seizure prediction and documentationâ€"two important problems. Lancet Neurology, The, 2013, 12, 531-532.	10.2	54
43	Presurgical Language fMRI in Patients with Drug-resistant Epilepsy: Effects of Task Performance. Epilepsia, 2006, 47, 880-886.	5.1	51
44	MEASURING SYNCHRONIZATION IN THE EPILEPTIC BRAIN: A COMPARISON OF DIFFERENT APPROACHES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2007, 17, 3539-3544.	1.7	50
45	Using bivariate signal analysis to characterize the epileptic focus: The benefit of surrogates. Physical Review E, 2011, 83, 046203.	2.1	49
46	Responses of Human Medial Temporal Lobe Neurons Are Modulated by Stimulus Repetition. Journal of Neurophysiology, 2010, 103, 97-107.	1.8	47
47	Recollection in the human hippocampal-entorhinal cell circuitry. Nature Communications, 2019, 10, 1503.	12.8	47
48	Single-Neuron Correlates of Conscious Perception in the Human Medial Temporal Lobe. Current Biology, 2017, 27, 2991-2998.e2.	3.9	46
49	Anesthesia-induced loss of consciousness disrupts auditory responses beyond primary cortex. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 11770-11780.	7.1	40
50	Single-Cell Responses to Face Adaptation in the Human Medial Temporal Lobe. Neuron, 2014, 84, 363-369.	8.1	37
51	Neurons in the human amygdala encode face identity, but not gaze direction. Nature Neuroscience, 2015, 18, 1568-1570.	14.8	37
52	Seizure prediction: making mileage on the long and winding road. Brain, 2016, 139, 1625-1627.	7.6	37
53	Scene-selective coding by single neurons in the human parahippocampal cortex. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1153-1158.	7.1	37
54	Representation of abstract semantic knowledge in populations of human single neurons in the medial temporal lobe. PLoS Biology, 2019, 17, e3000290.	5.6	35

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55	The Architecture of Human Memory: Insights from Human Single-Neuron Recordings. Journal of Neuroscience, 2021, 41, 883-890.	3.6	35
56	Discerning nonstationarity from nonlinearity in seizure-free and preseizure EEG recordings from epilepsy patients. IEEE Transactions on Biomedical Engineering, 2003, 50, 634-639.	4.2	32
57	Internetwork and intranetwork communications during bursting dynamics: Applications to seizure prediction. Physical Review E, 2007, 76, 021920.	2.1	29
58	Detecting directional coupling in the human epileptic brain: Limitations and potential pitfalls. Physical Review E, 2008, 77, 011914.	2.1	29
59	Rhinalâ€“hippocampal coupling during declarative memory formation: Dependence on item characteristics. Neuroscience Letters, 2006, 407, 37-41.	2.1	24
60	An Unsupervised Online Spike-Sorting Framework. International Journal of Neural Systems, 2016, 26, 1550042.	5.2	24
61	Estimating phase synchronization in dynamical systems using cellular nonlinear networks. Physical Review E, 2005, 71, 061926.	2.1	23
62	Association between scalp hair-whorl direction and hemispheric language dominance. NeuroImage, 2006, 30, 539-543.	4.2	23
63	A cellular neural network based method for classification of magnetic resonance images: Towards an automated detection of hippocampal sclerosis. Journal of Neuroscience Methods, 2008, 170, 324-331.	2.5	21
64	Assessing criticality in pre-seizure single-neuron activity of human epileptic cortex. PLoS Computational Biology, 2021, 17, e1008773.	3.2	19
65	A distributed computing system for multivariate time series analyses of multichannel neurophysiological data. Journal of Neuroscience Methods, 2006, 152, 190-201.	2.5	18
66	Concept neurons in the human medial temporal lobe flexibly represent abstract relations between concepts. Nature Communications, 2021, 12, 6164.	12.8	16
67	Improved statistical test for nonstationarity using recurrence time statistics. Physical Review E, 2004, 69, 046111.	2.1	15
68	Neuronal Firing in Human Epileptic Cortex: The Ins and Outs of Synchrony during Seizures. Epilepsy Currents, 2013, 13, 100-102.	0.8	15
69	Neurons in the Human Left Amygdala Automatically Encode Subjective Value Irrespective of Task. Cerebral Cortex, 2019, 29, 265-272.	2.9	15
70	Patterns of single-neuron activity during associative recognition memory in the human medial temporal lobe. NeuroImage, 2020, 221, 117214.	4.2	15
71	Neuronal codes for arithmetic rule processing in the human brain. Current Biology, 2022, 32, 1275-1284.e4.	3.9	15
72	Burst firing of single neurons in the human medial temporal lobe changes before epileptic seizures. Clinical Neurophysiology, 2016, 127, 3329-3334.	1.5	14

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73	Declarative memory formation in hippocampal sclerosis: an intracranial event-related potentials study. NeuroReport, 2007, 18, 317-321.	1.2	12
74	The neurobiology of consciousness. , 2010, , 24-46.		12
75	Multivariate representation of food preferences in the human brain. Brain and Cognition, 2016, 110, 43-52.	1.8	12
76	Seizure prediction. Scholarpedia Journal, 2008, 3, 5770.	0.3	11
77	EEG analysis with nonlinear excitable media. Journal of Clinical Neurophysiology, 2005, 22, 314-29.	1.7	9
78	Cue discriminability predicts instrumental conditioning. Consciousness and Cognition, 2018, 61, 49-60.	1.5	8
79	Detecting determinism from point processes. Physical Review E, 2014, 90, 062906.	2.1	6
80	Duplicate Detection of Spike Events: A Relevant Problem in Human Single-Unit Recordings. Brain Sciences, 2021, 11, 761.	2.3	6
81	Seizure Anticipation: Do Mathematical Measures Correlate with Video-EEG Evaluation?. Epilepsia, 2005, 46, 1335-1336.	5.1	5
82	An online adaptive screening procedure for selective neuronal responses. Journal of Neuroscience Methods, 2017, 291, 36-42.	2.5	4
83	Seizure Onset Zone Lateralization Using a Non-linear Analysis of Micro vs. Macro Electroencephalographic Recordings During Seizure-Free Stages of the Sleep-Wake Cycle From Epilepsy Patients. Frontiers in Neurology, 2020, 11, 553885.	2.4	4
84	Single-Neuron Correlates of Decision Confidence in the Human Medial Temporal Lobe. Current Biology, 2020, 30, 4722-4732.e5.	3.9	4
85	Auditory Beat Stimulation Modulates Memory-Related Single-Neuron Activity in the Human Medial Temporal Lobe. Brain Sciences, 2021, 11, 364.	2.3	4
86	Performance of a seizure warning algorithm based on the dynamics of intracranial EEG. Epilepsy Research, 2006, 71, 241-242.	1.6	3
87	Characterizing the spatio-temporal dynamics of the epileptogenic process with nonlinear EEG analyses. , 0, , .		2
88	Detecting Structural Alterations in the Brain using a Cellular Neural Network based Classification of Magnetic Resonance Images. , 2006, , .		2
89	Temporal lobe epilepsy surgery: Piriform cortex resection impacts seizure control in the longâ€term. Annals of Clinical and Translational Neurology, 2022, 9, 1206-1211.	3.7	2
90	NEURONAL AND NETWORK DYNAMICS PRECEDING EXPERIMENTAL SEIZURES. , 2013, , .		1

#	Article	IF	Citations
91	The Neurobiology of Consciousness. , 2008, , 367-399.		1