Florian Mormann

List of Publications by Year
in descending order

91 papers	11,285 citations	53794 45 h-index	49909 87 g-index
95 all docs	95 docs citations	95 times ranked	9482 citing authors

#	Article	IF	Citations
1	Neuronal codes for arithmetic rule processing in the human brain. Current Biology, 2022, 32, 1275-1284.e4.	3.9	15
2	Temporal lobe epilepsy surgery: Piriform cortex resection impacts seizure control in the long‐term. Annals of Clinical and Translational Neurology, 2022, 9, 1206-1211.	3.7	2
3	The Architecture of Human Memory: Insights from Human Single-Neuron Recordings. Journal of Neuroscience, 2021, 41, 883-890.	3.6	35
4	Assessing criticality in pre-seizure single-neuron activity of human epileptic cortex. PLoS Computational Biology, 2021, 17, e1008773.	3.2	19
5	Auditory Beat Stimulation Modulates Memory-Related Single-Neuron Activity in the Human Medial Temporal Lobe. Brain Sciences, 2021, 11, 364.	2.3	4
6	Duplicate Detection of Spike Events: A Relevant Problem in Human Single-Unit Recordings. Brain Sciences, 2021, 11, 761.	2.3	6
7	Concept neurons in the human medial temporal lobe flexibly represent abstract relations between concepts. Nature Communications, 2021, 12, 6164.	12.8	16
8	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
9	Single-Neuron Correlates of Decision Confidence in the Human Medial Temporal Lobe. Current Biology, 2020, 30, 4722-4732.e5.	3.9	4
10	Patterns of single-neuron activity during associative recognition memory in the human medial temporal lobe. NeuroImage, 2020, 221, 117214.	4.2	15
11	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
12	Representation of abstract semantic knowledge in populations of human single neurons in the medial temporal lobe. PLoS Biology, 2019, 17, e3000290.	5.6	35
13	Recollection in the human hippocampal-entorhinal cell circuitry. Nature Communications, 2019, 10, 1503.	12.8	47
14	Neurons in the Human Left Amygdala Automatically Encode Subjective Value Irrespective of Task. Cerebral Cortex, 2019, 29, 265-272.	2.9	15
15	Cue discriminability predicts instrumental conditioning. Consciousness and Cognition, 2018, 61, 49-60.	1.5	8
16	Single Neurons in the Human Brain Encode Numbers. Neuron, 2018, 100, 753-761.e4.	8.1	98
17	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
18	Persistent Single-Neuron Activity during Working Memory in the Human Medial Temporal Lobe. Current Biology, 2017, 27, 1026-1032.	3.9	104

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19	Single-Neuron Correlates of Conscious Perception in the Human Medial Temporal Lobe. Current Biology, 2017, 27, 2991-2998.e2.	3.9	46
20	An online adaptive screening procedure for selective neuronal responses. Journal of Neuroscience Methods, 2017, 291, 36-42.	2.5	4
21	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
22	All together now: Analogies between chimera state collapses and epileptic seizures. Scientific Reports, 2016, 6, 23000.	3.3	133
23	Seizure prediction: making mileage on the long and winding road. Brain, 2016, 139, 1625-1627.	7.6	37
24	Burst firing of single neurons in the human medial temporal lobe changes before epileptic seizures. Clinical Neurophysiology, 2016, 127, 3329-3334.	1.5	14
25	Multivariate representation of food preferences in the human brain. Brain and Cognition, 2016, 110, 43-52.	1.8	12
26	An Unsupervised Online Spike-Sorting Framework. International Journal of Neural Systems, 2016, 26, 1550042.	5.2	24
27	Seizure prediction for therapeutic devices: A review. Journal of Neuroscience Methods, 2016, 260, 270-282.	2.5	146
28	Synergy of Direct and Indirect Cholinergic Septo-Hippocampal Pathways Coordinates Firing in Hippocampal Networks. Journal of Neuroscience, 2015, 35, 8394-8410.	3.6	118
29	Neurons in the human amygdala encode face identity, but not gaze direction. Nature Neuroscience, 2015, 18, 1568-1570.	14.8	37
30	Detecting determinism from point processes. Physical Review E, 2014, 90, 062906.	2.1	6
31	Single-Cell Responses to Face Adaptation in the Human Medial Temporal Lobe. Neuron, 2014, 84, 363-369.	8.1	37
32	Memory Consolidation by Replay of Stimulus-Specific Neural Activity. Journal of Neuroscience, 2013, 33, 19373-19383.	3.6	214
33	Monitoring spike train synchrony. Journal of Neurophysiology, 2013, 109, 1457-1472.	1.8	127
34	Seizure prediction and documentation—two important problems. Lancet Neurology, The, 2013, 12, 531-532.	10.2	54
35	Persistent cognitive impairment, hippocampal atrophy and EEG changes in sepsis survivors. Journal of Neurology, Neurosurgery and Psychiatry, 2013, 84, 62-69.	1.9	341
36	Neuronal Firing in Human Epileptic Cortex: The Ins and Outs of Synchrony during Seizures. Epilepsy Currents, 2013, 13, 100-102.	0.8	15

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37	NEURONAL AND NETWORK DYNAMICS PRECEDING EXPERIMENTAL SEIZURES. , 2013, , .		1
38	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
39	Using bivariate signal analysis to characterize the epileptic focus: The benefit of surrogates. Physical Review E, 2011, 83, 046203.	2.1	49
40	Prospective use of subtraction ictal SPECT coregistered to MRI (SISCOM) in presurgical evaluation of epilepsy. Epilepsia, 2011, 52, 2239-2248.	5.1	78
41	What is the present-day EEG evidence for a preictal state?. Epilepsy Research, 2011, 97, 243-251.	1.6	75
42	A category-specific response to animals in the right human amygdala. Nature Neuroscience, 2011, 14, 1247-1249.	14.8	129
43	Selectivity of pyramidal cells and interneurons in the human medial temporal lobe. Journal of Neurophysiology, 2011, 106, 1713-1721.	1.8	57
44	On-line, voluntary control of human temporal lobe neurons. Nature, 2010, 467, 1104-1108.	27.8	140
45	The neurobiology of consciousness. , 2010, , 24-46.		12
46	Responses of Human Medial Temporal Lobe Neurons Are Modulated by Stimulus Repetition. Journal of Neurophysiology, 2010, 103, 97-107.	1.8	47
47	Controversies in epilepsy: Debates held during the Fourth International Workshop on Seizure Prediction. Epilepsy and Behavior, 2010, 19, 4-16.	1.7	61
48	Neuronal Shot Noise and Brownian 1/f2 Behavior in the Local Field Potential. PLoS ONE, 2009, 4, e4338.	2.5	142
49	Seizure prediction: Any better than chance?. Clinical Neurophysiology, 2009, 120, 1465-1478.	1.5	87
50	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
51	Sepsis causes neuroinflammation and concomitant decrease of cerebral metabolism. Journal of Neuroinflammation, 2008, 5, 38.	7.2	223
52	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
53	Detecting directional coupling in the human epileptic brain: Limitations and potential pitfalls. Physical Review E, 2008, 77, 011914.	2.1	29
54	Independent delta/theta rhythms in the human hippocampus and entorhinal cortex. Frontiers in Human Neuroscience, 2008, 2, 3.	2.0	64

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55	Seizure prediction. Scholarpedia Journal, 2008, 3, 5770.	0.3	11
56	The Neurobiology of Consciousness. , 2008, , 367-399.		1
57	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
58	Internetwork and intranetwork communications during bursting dynamics: Applications to seizure prediction. Physical Review E, 2007, 76, 021920.	2.1	29
59	State-of-the-Art of Seizure Prediction. Journal of Clinical Neurophysiology, 2007, 24, 147-153.	1.7	72
60	Declarative memory formation in hippocampal sclerosis: an intracranial event-related potentials study. NeuroReport, 2007, 18, 317-321.	1.2	12
61	Sustained Neural Activity Patterns during Working Memory in the Human Medial Temporal Lobe. Journal of Neuroscience, 2007, 27, 7807-7816.	3.6	240
62	Seizure prediction: the long and winding road. Brain, 2007, 130, 314-333.	7.6	919
63	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
64	Measuring synchronization in coupled model systems: A comparison of different approaches. Physica D: Nonlinear Phenomena, 2007, 225, 29-42.	2.8	171
65	Detecting Structural Alterations in the Brain using a Cellular Neural Network based Classification of Magnetic Resonance Images. , 2006, , .		2
66	Association between scalp hair-whorl direction and hemispheric language dominance. NeuroImage, 2006, 30, 539-543.	4.2	23
67	Left hippocampal pathology is associated with atypical language lateralization in patients with focal epilepsy. Brain, 2006, 129, 346-351.	7.6	103
68	Rhinalâ€"hippocampal coupling during declarative memory formation: Dependence on item characteristics. Neuroscience Letters, 2006, 407, 37-41.	2.1	24
69	Seizure anticipation: from algorithms to clinical practice. Current Opinion in Neurology, 2006, 19, 187-193.	3.6	64
70	Presurgical Language fMRI in Patients with Drug-resistant Epilepsy: Effects of Task Performance. Epilepsia, 2006, 47, 880-886.	5.1	51
71	Improved spatial characterization of the epileptic brain by focusing on nonlinearity. Epilepsy Research, 2006, 69, 30-44.	1.6	74
72	Performance of a seizure warning algorithm based on the dynamics of intracranial EEG. Epilepsy Research, 2006, 71, 241-242.	1.6	3

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73	A distributed computing system for multivariate time series analyses of multichannel neurophysiological data. Journal of Neuroscience Methods, 2006, 152, 190-201.	2.5	18
74	Memory formation by neuronal synchronization. Brain Research Reviews, 2006, 52, 170-182.	9.0	402
75	Seizure Anticipation: Do Mathematical Measures Correlate with Video-EEG Evaluation?. Epilepsia, 2005, 46, 1335-1336.	5.1	5
76	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
77	Estimating phase synchronization in dynamical systems using cellular nonlinear networks. Physical Review E, 2005, 71, 061926.	2.1	23
78	On the predictability of epileptic seizures. Clinical Neurophysiology, 2005, 116, 569-587.	1.5	442
79	EEG analysis with nonlinear excitable media. Journal of Clinical Neurophysiology, 2005, 22, 314-29.	1.7	9
80	Improved statistical test for nonstationarity using recurrence time statistics. Physical Review E, 2004, 69, 046111.	2.1	15
81	Measure profile surrogates: A method to validate the performance of epileptic seizure prediction algorithms. Physical Review E, 2004, 69, 061915.	2.1	66
82	Seizure prediction by nonlinear EEG analysis. IEEE Engineering in Medicine and Biology Magazine, 2003, 22, 57-63.	0.8	127
83	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
84	Epileptic seizures are preceded by a decrease in synchronization. Epilepsy Research, 2003, 53, 173-185.	1.6	407
85	Testing the null hypothesis of the nonexistence of a preseizure state. Physical Review E, 2003, 67, 010901.	2.1	122
86	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
87	Bivariate surrogate techniques: Necessity, strengths, and caveats. Physical Review E, 2003, 68, 066202.	2.1	107
88	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
89	Its Possible Use for Interictal Focus Localization, Seizure Anticipation, and Prevention. Journal of Clinical Neurophysiology, 2001, 18, 209-222.	1.7	173
90	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

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91	Characterizing the spatio-temporal dynamics of the epileptogenic process with nonlinear EEG analyses. , 0, , .		2