

Levin Kuhlmann

List of Publications by Year in descending order

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Version: 2024-02-01

67
papers

2,537
citations

236925

25
h-index

214800

47
g-index

75
all docs

75
docs citations

75
times ranked

1964
citing authors

#	ARTICLE	IF	CITATIONS
1	Convolutional neural networks for seizure prediction using intracranial and scalp electroencephalogram. <i>Neural Networks</i> , 2018, 105, 104-111.	5.9	391
2	Seizure prediction “ready for a new era. <i>Nature Reviews Neurology</i> , 2018, 14, 618-630.	10.1	284
3	The circadian profile of epilepsy improves seizure forecasting. <i>Brain</i> , 2017, 140, 2169-2182.	7.6	156
4	Machine Learning for Predicting Epileptic Seizures Using EEG Signals: A Review. <i>IEEE Reviews in Biomedical Engineering</i> , 2021, 14, 139-155.	18.0	148
5	Critical slowing down as a biomarker for seizure susceptibility. <i>Nature Communications</i> , 2020, 11, 2172.	12.8	133
6	Epilepsyecosystem.org: crowd-sourcing reproducible seizure prediction with long-term human intracranial EEG. <i>Brain</i> , 2018, 141, 2619-2630.	7.6	105
7	A taxonomy of seizure dynamotypes. <i>ELife</i> , 2020, 9, .	6.0	86
8	Forecasting cycles of seizure likelihood. <i>Epilepsia</i> , 2020, 61, 776-786.	5.1	76
9	Patient-specific bivariate-synchrony-based seizure prediction for short prediction horizons. <i>Epilepsy Research</i> , 2010, 91, 214-231.	1.6	64
10	Seizure Prediction: Science Fiction or Soon to Become Reality?. <i>Current Neurology and Neuroscience Reports</i> , 2015, 15, 73.	4.2	59
11	Epileptic Seizure Forecasting With Generative Adversarial Networks. <i>IEEE Access</i> , 2019, 7, 143999-144009.	4.2	54
12	Electrical probing of cortical excitability in patients with epilepsy. <i>Epilepsy and Behavior</i> , 2011, 22, S110-S118.	1.7	52
13	Integer Convolutional Neural Network for Seizure Detection. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2018, 8, 849-857.	3.6	51
14	Supervised learning in automatic channel selection for epileptic seizure detection. <i>Expert Systems With Applications</i> , 2017, 86, 199-207.	7.6	49
15	Seizure Detection Using Seizure Probability Estimation: Comparison of Features Used to Detect Seizures. <i>Annals of Biomedical Engineering</i> , 2009, 37, 2129-2145.	2.5	46
16	A robust circle criterion observer with application to neural mass models. <i>Automatica</i> , 2012, 48, 2986-2989.	5.0	42
17	Parameter and State Estimation of Nonlinear Systems Using a Multi-Observer Under the Supervisory Framework. <i>IEEE Transactions on Automatic Control</i> , 2015, 60, 2336-2349.	5.7	41
18	A neural model of 3D shape-from-texture: Multiple-scale filtering, boundary grouping, and surface filling-in. <i>Vision Research</i> , 2007, 47, 634-672.	1.4	40

#	ARTICLE	IF	CITATIONS
19	Alterations in the Functional Connectivity of Frontal Lobe Networks Preceding Emergence Delirium in Children. <i>Anesthesiology</i> , 2014, 121, 740-752.	2.5	38
20	Neural mass model-based tracking of anesthetic brain states. <i>NeuroImage</i> , 2016, 133, 438-456.	4.2	37
21	Seizure pathways: A model-based investigation. <i>PLoS Computational Biology</i> , 2018, 14, e1006403.	3.2	37
22	Role of Multiple-Scale Modeling of Epilepsy in Seizure Forecasting. <i>Journal of Clinical Neurophysiology</i> , 2015, 32, 220-226.	1.7	36
23	Seizure likelihood varies with day-to-day variations in sleep duration in patients with refractory focal epilepsy: A longitudinal electroencephalography investigation. <i>EClinicalMedicine</i> , 2021, 37, 100934.	7.1	33
24	Modulation of Functional EEG Networks by the NMDA Antagonist Nitrous Oxide. <i>PLoS ONE</i> , 2013, 8, e56434.	2.5	33
25	Convolutional Neural Networks for Epileptic Seizure Prediction. , 2018, , .		30
26	Summation of spatiotemporal input patterns in leaky integrate-and-fire neurons: application to neurons in the cochlear nucleus receiving converging auditory nerve fiber input. <i>Journal of Computational Neuroscience</i> , 2002, 12, 55-73.	1.0	28
27	Mechanisms of Seizure Propagation in 2-Dimensional Centre-Surround Recurrent Networks. <i>PLoS ONE</i> , 2013, 8, e71369.	2.5	27
28	A Generative Model to Synthesize EEG Data for Epileptic Seizure Prediction. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2021, 29, 2322-2332.	4.9	27
29	Association of Short-term Heart Rate Variability and Sudden Unexpected Death in Epilepsy. <i>Neurology</i> , 2021, 97, .	1.1	25
30	Predicting epileptic seizures using nonnegative matrix factorization. <i>PLoS ONE</i> , 2020, 15, e0228025.	2.5	24
31	Identifying seizure risk factors: A comparison of sleep, weather, and temporal features using a Bayesian forecast. <i>Epilepsia</i> , 2021, 62, 371-382.	5.1	21
32	A Computational Study of How Orientation Bias in the Lateral Geniculate Nucleus Can Give Rise to Orientation Selectivity in Primary Visual Cortex. <i>Frontiers in Systems Neuroscience</i> , 2011, 5, 81.	2.5	19
33	Extending Communication for Patients with Disorders of Consciousness. <i>Journal of Neuroimaging</i> , 2014, 24, 31-38.	2.0	18
34	Towards a comprehensive pipeline to identify and functionally annotate long noncoding RNA (lncRNA). <i>Computers in Biology and Medicine</i> , 2020, 127, 104028.	7.0	16
35	Ensembling crowdsourced seizure prediction algorithms using long-term human intracranial EEG. <i>Epilepsia</i> , 2020, 61, e7-e12.	5.1	15
36	Estimating the unmeasured membrane potential of neuronal populations from the EEG using a class of deterministic nonlinear filters. <i>Journal of Neural Engineering</i> , 2012, 9, 026001.	3.5	14

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37	Postictal suppression and seizure durations: A patient-specific, long-term EEG analysis. <i>Epilepsia</i> , 2018, 59, 1027-1036.	5.1	14
38	Epileptic Seizure Detection Using Convolutional Neural Network: A Multi-Biosignal study. , 2020, , .		13
39	Viability of Preictal High-Frequency Oscillation Rates as a Biomarker for Seizure Prediction. <i>Frontiers in Human Neuroscience</i> , 2020, 14, 612899.	2.0	12
40	Source-level Cortical Power Changes for Xenon and Nitrous Oxide-induced Reductions in Consciousness in Healthy Male Volunteers. <i>Anesthesiology</i> , 2020, 132, 1017-1033.	2.5	12
41	PATIENT-SPECIFIC NEURAL MASS MODELING - STOCHASTIC AND DETERMINISTIC METHODS. , 2013, , .		11
42	Probing to Observe Neural Dynamics Investigated with Networked Kuramoto Oscillators. <i>International Journal of Neural Systems</i> , 2017, 27, 1650038.	5.2	10
43	Tracking Electroencephalographic Changes Using Distributions of Linear Models: Application to Propofol-Based Depth of Anesthesia Monitoring. <i>IEEE Transactions on Biomedical Engineering</i> , 2017, 64, 870-881.	4.2	9
44	Assessing nitrous oxide effect using electroencephalographically-based depth of anesthesia measures cortical state and cortical input. <i>Journal of Clinical Monitoring and Computing</i> , 2018, 32, 173-188.	1.6	9
45	Correlation analysis of seizure detection features. , 2008, , .		8
46	Observability limits for networked oscillators. <i>Automatica</i> , 2014, 50, 1087-1099.	5.0	8
47	Seizure Susceptibility Prediction in Uncontrolled Epilepsy. <i>Frontiers in Neurology</i> , 2021, 12, 721491.	2.4	8
48	Parameter and state estimation for a class of neural mass models. , 2012, , .		6
49	Statistical Performance Analysis of Data-Driven Neural Models. <i>International Journal of Neural Systems</i> , 2017, 27, 1650045.	5.2	6
50	A Two-Layer LSTM Deep Learning Model for Epileptic Seizure Prediction. , 2021, , .		6
51	Measurement of the limiting equivalent conductivities and mobilities of the most prevalent ionic species of EGTA (EGTA ²⁻ and EGTA ³⁻) for use in electrophysiological experiments. <i>Journal of Neuroscience Methods</i> , 1999, 89, 41-47.	2.5	5
52	Coherent false seizure prediction in epilepsy, coincidence or providence?. <i>Clinical Neurophysiology</i> , 2022, 133, 157-164.	1.5	5
53	Approximate, Computationally Efficient Online Learning in Bayesian Spiking Neurons. <i>Neural Computation</i> , 2014, 26, 472-496.	2.2	4
54	Recording Brain Electromagnetic Activity During the Administration of the Gaseous Anesthetic Agents Xenon and Nitrous Oxide in Healthy Volunteers. <i>Journal of Visualized Experiments</i> , 2018, , .	0.3	4

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55	Interictal spike localization for epilepsy surgery using magnetoencephalography beamforming. <i>Clinical Neurophysiology</i> , 2021, 132, 928-937.	1.5	4
56	Computationally Efficient Epileptic Seizure Prediction based on Extremely Randomised Trees. , 2020, , .		4
57	Introduction. <i>International Journal of Neural Systems</i> , 2017, 27, 1702001.	5.2	3
58	Epileptic Seizure Onset Predicts Its Duration. <i>European Journal of Neurology</i> , 2021, , .	3.3	3
59	Probing for cortical excitability. , 2011, 2011, 1644-7.		1
60	State and parameter estimation of nonlinear systems: A multi-observer approach. , 2014, , .		1
61	Comparison of Patient Specific and General Classification of Epileptic Seizure Prediction. , 2021, , .		1
62	Analysis of the power spectra, autocorrelation function and EEG time-series signal of a network of leaky integrate-and-fire neurons with conductance-based synapses. <i>BMC Neuroscience</i> , 2009, 10, .	1.9	0
63	210. Spatiotemporal patterns of high frequency oscillation from intracranial EEG before and during seizure. <i>Journal of Clinical Neuroscience</i> , 2009, 16, 472-473.	1.5	0
64	The perturbation response and power spectrum of a mean-field of IF neurons with inhomogeneous inputs. <i>BMC Neuroscience</i> , 2010, 11, .	1.9	0
65	A nonlinear estimator for the activity of neuronal populations in the hippocampus. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011, 44, 9899-9904.	0.4	0
66	Online learning in Bayesian Spiking Neurons. , 2012, , .		0
67	Convergence analysis of efficient online learning in Bayesian spiking neurons. <i>BMC Neuroscience</i> , 2012, 13, .	1.9	0