Vaclav Kremen

List of Publications by Year
in descending order

84 papers	1,974 citations	304368 22 h-index	329751 37 g-index
103 all docs	103 docs citations	103 times ranked	1887 citing authors

#	Article	IF	Citations
1	Intravenous and Intramuscular Allopregnanolone for Early Treatment of Status Epilepticus: Pharmacokinetics, Pharmacodynamics, and Safety in Dogs. Journal of Pharmacology and Experimental Therapeutics, 2022, 380, 104-113.	1.3	4
2	Electrical brain stimulation and continuous behavioral state tracking in ambulatory humans. Journal of Neural Engineering, 2022, 19, 016019.	1.8	18
3	Embedding digital chronotherapy into bioelectronic medicines. IScience, 2022, 25, 104028.	1.9	20
4	Distributed brain co-processor for tracking spikes, seizures and behaviour during electrical brain stimulation. Brain Communications, 2022, 4, .	1.5	22
5	Deep Brain Stimulation of Anterior Nuclei of the Thalamus and Hippocampal Seizure Rate Modulate Verbal Memory Performance. , 2022, , .		4
6	Hotspot of human verbal memory encoding in the left anterior prefrontal cortex. EBioMedicine, 2022, 82, 104135.	2.7	1
7	Direct Electrical Stimulation of the Human Brain Has Inverse Effects on the Theta and Gamma Neural Activities. IEEE Transactions on Biomedical Engineering, 2021, 68, 3701-3712.	2.5	7
8	Characterizing the electrophysiological abnormalities in visually reviewed normal EEGs of drug-resistant focal epilepsy patients. Brain Communications, 2021, 3, fcab102.	1.5	10
9	Long-term wireless streaming of neural recordings for circuit discovery and adaptive stimulation in individuals with Parkinson's disease. Nature Biotechnology, 2021, 39, 1078-1085.	9.4	180
10	Epilepsy Personal Assistant Device—A Mobile Platform for Brain State, Dense Behavioral and Physiology Tracking and Controlling Adaptive Stimulation. Frontiers in Neurology, 2021, 12, 704170.	1.1	24
11	Invasive Electrophysiology for Circuit Discovery and Study of Comorbid Psychiatric Disorders in Patients With Epilepsy: Challenges, Opportunities, and Novel Technologies. Frontiers in Human Neuroscience, 2021, 15, 702605.	1.0	14
12	Seizure likelihood varies with day-to-day variations in sleep duration in patients with refractory focal epilepsy: A longitudinal electroencephalography investigation. EClinicalMedicine, 2021, 37, 100934.	3.2	33
13	Anterior nucleus of the thalamus seizure detection in ambulatory humans. Epilepsia, 2021, 62, e158-e164.	2.6	31
14	Leveraging electrophysiologic correlates of word encoding to map seizure onset zone in focal epilepsy: Task‐dependent changes in epileptiform activity, spectral features, and functional connectivity. Epilepsia, 2021, 62, 2627-2639.	2.6	4
15	Identifying seizure risk factors: A comparison of sleep, weather, and temporal features using a Bayesian forecast. Epilepsia, 2021, 62, 371-382.	2.6	21
16	Independent dynamics of low, intermediate, and high frequency spectral intracranial EEG activities during human memory formation. NeuroImage, 2021, 245, 118637.	2.1	13
17	Hippocampal-ANT connectivity and ANT DBS: Circadian trends and response to stimulation. Brain Stimulation, 2021, 14, 1654.	0.7	0
18	Thalamic deep brain stimulation modulates cycles of seizure risk in epilepsy. Scientific Reports, 2021, 11, 24250.	1.6	33

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19	Probing circuit of Papez with stimulation of anterior nucleus of the thalamus and hippocampal evoked potentials. Epilepsy Research, 2020, 159, 106248.	0.8	32
20	Semi-supervised training data selection improves seizure forecasting in canines with epilepsy. Biomedical Signal Processing and Control, 2020, 57, 101743.	3.5	23
21	Electrophysiological Correlates of Brain Health Help Diagnose Epilepsy and Lateralize Seizure Focus. , 2020, 2020, 3460-3464.		3
22	4512 Allopregnanolone Dose Finding for Status Epilepticus Treatment by Pharmacokinetic-Pharmacodynamic Modeling using Quantitative EEG in Dogs. Journal of Clinical and Translational Science, 2020, 4, 1-2.	0.3	1
23	Multicenter intracranial EEG dataset for classification of graphoelements and artifactual signals. Scientific Data, 2020, 7, 179.	2.4	16
24	Circadian and multiday seizure periodicities, and seizure clusters in canine epilepsy. Brain Communications, 2020, 2, fcaa008.	1.5	63
25	DyNeuMo Mk-2: An Investigational Circadian-Locked Neuromodulator with Responsive Stimulation for Applied Chronobiology. , 2020, 2020, 3433-3440.		29
26	Intracerebral EEG Artifact Identification Using Convolutional Neural Networks. Neuroinformatics, 2019, 17, 225-234.	1.5	60
27	Exploiting Graphoelements and Convolutional Neural Networks with Long Short Term Memory for Classification of the Human Electroencephalogram. Scientific Reports, 2019, 9, 11383.	1.6	18
28	Noninvasive Assessment of Aortic Pulse Wave Velocity by the Brachial Occlusion-Cuff Technique: Comparative Study. Sensors, 2019, 19, 3467.	2.1	9
29	Adding wisdom to â€˜smartâ€™ bioelectronic systems: a design framework for physiologic control including practical examples. Bioelectronics in Medicine, 2019, 2, 29-41.	2.0	16
30	Semi-automated detection of polysomnographic REM sleep without atonia (RSWA) in REM sleep behavioral disorder. Biomedical Signal Processing and Control, 2019, 51, 243-252.	3.5	3
31	Deep-learning for seizure forecasting in canines with epilepsy. Journal of Neural Engineering, 2019, 16, 036031.	1.8	61
32	Iterative expert-in-the-loop classification of sleep PSG recordings using a hierarchical clustering. Journal of Neuroscience Methods, 2019, 317, 61-70.	1.3	12
33	Allopregnanolone Pharmacokinetic-Pharmacodynamic Modeling and Simulations in Dogs with Naturally-Occurring Epilepsy. Epilepsy and Behavior, 2019, 101, 106805.	0.9	0
34	Unsupervised machine-learning classification of electrophysiologically active electrodes during human cognitive task performance. Scientific Reports, 2019, 9, 17390.	1.6	18
35	Cloud computing for seizure detection in implanted neural devices. Journal of Neural Engineering, 2019, 16, 026016.	1.8	21
36	Automated unsupervised behavioral state classification using intracranial electrophysiology. Journal of Neural Engineering, 2019, 16, 026004.	1.8	28

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37	Noninvasive Blood Pressure Monitor Designed for Patients With Heart Failure Supported with Continuous-Flow Left Ventricular Assist Devices. ASAIO Journal, 2019, 65, 127-133.	0.9	11
38	Human Verbal Memory Encoding Is Hierarchically Distributed in a Continuous Processing Stream. ENeuro, 2019, 6, ENEURO.0214-18.2018.	0.9	21
39	Pupil size reflects successful encoding and recall of memory in humans. Scientific Reports, 2018, 8, 4949.	1.6	62
40	Spatial variation in high-frequency oscillation rates and amplitudes in intracranial EEG. Neurology, 2018, 90, e639-e646.	1.5	60
41	Evidence for verbal memory enhancement with electrical brain stimulation in the lateral temporal cortex. Brain, 2018, 141, 971-978.	3.7	80
42	Creating neural â€œco-processorsâ€•to explore treatments for neurological disorders. , 2018, , .		7
43	Expert-in-the-loop Learning for Sleep EEG Data. , 2018, , .		2
44	A Chronically Implantable Neural Coprocessor for Investigating the Treatment of Neurological Disorders. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 1230-1245.	2.7	138
45	Integrating Brain Implants With Local and Distributed Computing Devices: A Next Generation Epilepsy Management System. IEEE Journal of Translational Engineering in Health and Medicine, 2018, 6, 1-12.	2.2	92
46	Physiological and pathological high frequency oscillations in focal epilepsy. Annals of Clinical and Translational Neurology, 2018, 5, 1062-1076.	1.7	71
47	Integrating artificial intelligence with real-time intracranial EEG monitoring to automate interictal identification of seizure onset zones in focal epilepsy. Journal of Neural Engineering, 2018, 15, 046035.	1.8	54
48	Visually validated semi-automatic high-frequency oscillation detection aides the delineation of epileptogenic regions during intra-operative electrocorticography. Clinical Neurophysiology, 2018, 129, 2089-2098.	0.7	40
49	Sample Entropy Analysis of Noisy Atrial Electrograms during Atrial Fibrillation. Computational and Mathematical Methods in Medicine, 2018, 2018, 1-8.	0.7	9
50	Electrical Stimulation Modulates High Î³ Activity and Human Memory Performance. ENeuro, 2018, 5, ENEURO.0369-17.2018.	0.9	41
51	Behavioral state classification in epileptic brain using intracranial electrophysiology. Journal of Neural Engineering, 2017, 14, 026001.	1.8	31
52	Automated Tâ€wave analysis can differentiate acquired <scp>QT</scp> prolongation from congenital long <scp>QT</scp> syndrome. Annals of Noninvasive Electrocardiology, 2017, 22, .	0.5	8
53	Utility of T-wave amplitude as a non-invasive risk marker of sudden cardiac death in hypertrophic cardiomyopathy. Open Heart, 2017, 4, e000561.	0.9	12
54	Dissecting gamma frequency activity during human memory processing. Brain, 2017, 140, 1337-1350.	3.7	76

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55	Architectural T-Wave Analysis and Identification of On-Therapy Breakthrough Arrhythmic Risk in Type 1 and Type 2 Long-QT Syndrome. Circulation: Arrhythmia and Electrophysiology, 2017, 10, .	2.1	11
56	Feature subset selection and classification of intracardiac electrograms during atrial fibrillation. Biomedical Signal Processing and Control, 2017, 38, 182-190.	3.5	5
57	Automatic identification of artifacts and unwanted physiologic signals in EEG and EOG during wakefulness. Biomedical Signal Processing and Control, 2017, 31, 381-390.	3.5	15
58	Live demonstration: Continuous active probing and modulation of neural networks with a wireless implantable system. , 2017, , .		0
59	Continuous active probing and modulation of neural networks with a wireless implantable system. , 2017, , .		2
60	60â€¦Utility of t wave amplitude as a non-invasive risk marker of sudden cardiac death in hypertrophic cardiomyopathy. , 2017, , .		1
61	Noninvasive assessment of cardiac output by brachial occlusion-cuff technique: comparison with the open-circuit acetylene washin method. Journal of Applied Physiology, 2016, 121, 1319-1325.	1.2	3
62	Identification of Concealed and Manifest Long QT Syndrome Using a Novel T Wave Analysis Program. Circulation: Arrhythmia and Electrophysiology, 2016, 9, .	2.1	21
63	Differences in mean arterial pressure of young and elderly people measured by oscilometry during inflation and deflation of the arm cuff. Biomedizinische Technik, 2016, 61, 611-621.	0.9	10
64	Electrocardiographic predictors of coronary microvascular dysfunction in patients with non-obstructive coronary artery disease: Utility of a novel T wave analysis program. International Journal of Cardiology, 2016, 203, 601-606.	0.8	8
65	Multifractal analysis for grading complex fractionated electrograms in atrial fibrillation. Physiological Measurement, 2015, 36, 2269-2284.	1.2	17
66	Characterization of Complex Fractionated Atrial Electrograms by Sample Entropy: An International Multi-Center Study. Entropy, 2015, 17, 7493-7509.	1.1	18
67	Electrocardiographic Predictors of Torsadogenic Risk During Dofetilide or Sotalol Initiation: Utility of a Novel T Wave Analysis Program. Cardiovascular Drugs and Therapy, 2015, 29, 433-441.	1.3	23
68	10â€¦Electrocardiographic predictors of torsadogenic risk during dofetilide or sotalol initiation: utility of a novel t wave analysis programme. Heart, 2015, 101, A5.2-A5.	1.2	0
69	Abstract 17597: Quantitative T Wave Analysis Can Identify Patients With Symptomatic Long QT Syndrome. Circulation, 2015, 132, .	1.6	0
70	Abstract 17604: Identification of Genotype-specific Electrocardiogram Patterns in Long QT Syndrome Using a Novel, Automated T Wave Analysis Program. Circulation, 2015, 132, .	1.6	1
71	Independent Component Analysis and Decision Trees for ECG Holter Recording De-Noising. PLoS ONE, 2014, 9, e98450.	1.1	29
72	Comparison of JADE and Canonical Correlation Analysis for ECG de-noising. , 2014, 2014, 3857-60.		3

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73	Fractionated electrograms and rotors detection in chronic atrial fibrillation using model-based clustering. , 2014, 2014, 1579-82.		2
74	Dynamic Approximate Entropy Electroanatomic Maps Detect Rotors in a Simulated Atrial Fibrillation Model. PLoS ONE, 2014, 9, e114577.	1.1	33
75	Digital Signal Processing and Artificial Intelligence Methods for Intracardial Signal Complexity Evaluation. , 2012, , .		0
76	Multimedia Support in Education of ECG Signal Analysis. IFMBE Proceedings, 2011, , 1378-1381.	0.2	0
77	Comparison of several classifiers to evaluate endocardial electrograms fractionation in human. , 2009, 2009, 2502-5.		5
78	Discrimination of endocardial electrogram disorganization using a signal regularity analysis. , 2009, 2009, 1812-5.		4
79	A new approach to automated assessment of fractionation of endocardial electrograms during atrial fibrillation. Physiological Measurement, 2008, 29, 1371-1381.	1.2	26
80	Social Impact based Approach to Feature Subset Selection. Studies in Computational Intelligence, 2008, , 239-248.	0.7	5
81	EVALUATION OF NOVEL ALGORITHM FOR SEARCH OF SIGNAL COMPLEXES TO DESCRIBE COMPLEX FRACTIONATED ATRIAL ELECTROGRAM. , 2008, , .		3
82	USING PSO ALGORITHM TO OPTIMIZE PARAMETERS OF TIME-DOMAIN METHOD FOR COMPLEX FRACTIONATED ATRIAL ELECTROGRAMS EVALUATION. , 2008, , .		1
83	AUTOMATIC SEARCH OF INDIVIDUAL SIGNAL COMPLEXES IN COMPLEX FRACTIONATED ATRIAL ELECTROGRAMS USING WAVELET TRANSFORM. , 2008, , .		3
84	Novel approach to search for individual signal complexes in complex fractionated atrial electrograms using wavelet transform. , 2007, , .		8