

# Vaclav Kremen

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2320049/publications.pdf>

Version: 2024-02-01

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	Long-term wireless streaming of neural recordings for circuit discovery and adaptive stimulation in individuals with Parkinson's disease. <i>Nature Biotechnology</i> , 2021, 39, 1078-1085.	9.4	180
2	A Chronically Implantable Neural Coprocessor for Investigating the Treatment of Neurological Disorders. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2018, 12, 1230-1245.	2.7	138
3	Integrating Brain Implants With Local and Distributed Computing Devices: A Next Generation Epilepsy Management System. <i>IEEE Journal of Translational Engineering in Health and Medicine</i> , 2018, 6, 1-12.	2.2	92
4	Evidence for verbal memory enhancement with electrical brain stimulation in the lateral temporal cortex. <i>Brain</i> , 2018, 141, 971-978.	3.7	80
5	Dissecting gamma frequency activity during human memory processing. <i>Brain</i> , 2017, 140, 1337-1350.	3.7	76
6	Physiological and pathological high frequency oscillations in focal epilepsy. <i>Annals of Clinical and Translational Neurology</i> , 2018, 5, 1062-1076.	1.7	71
7	Circadian and multiday seizure periodicities, and seizure clusters in canine epilepsy. <i>Brain Communications</i> , 2020, 2, fcaa008.	1.5	63
8	Pupil size reflects successful encoding and recall of memory in humans. <i>Scientific Reports</i> , 2018, 8, 4949.	1.6	62
9	Deep-learning for seizure forecasting in canines with epilepsy. <i>Journal of Neural Engineering</i> , 2019, 16, 036031.	1.8	61
10	Spatial variation in high-frequency oscillation rates and amplitudes in intracranial EEG. <i>Neurology</i> , 2018, 90, e639-e646.	1.5	60
11	Intracerebral EEG Artifact Identification Using Convolutional Neural Networks. <i>Neuroinformatics</i> , 2019, 17, 225-234.	1.5	60
12	Integrating artificial intelligence with real-time intracranial EEG monitoring to automate interictal identification of seizure onset zones in focal epilepsy. <i>Journal of Neural Engineering</i> , 2018, 15, 046035.	1.8	54
13	Electrical Stimulation Modulates High $\gamma$ Activity and Human Memory Performance. <i>ENeuro</i> , 2018, 5, ENEURO.0369-17.2018.	0.9	41
14	Visually validated semi-automatic high-frequency oscillation detection aides the delineation of epileptogenic regions during intra-operative electrocorticography. <i>Clinical Neurophysiology</i> , 2018, 129, 2089-2098.	0.7	40
15	Dynamic Approximate Entropy Electroanatomic Maps Detect Rotors in a Simulated Atrial Fibrillation Model. <i>PLoS ONE</i> , 2014, 9, e114577.	1.1	33
16	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.	3.2	33
17	Thalamic deep brain stimulation modulates cycles of seizure risk in epilepsy. <i>Scientific Reports</i> , 2021, 11, 24250.	1.6	33
18	Probing circuit of Papez with stimulation of anterior nucleus of the thalamus and hippocampal evoked potentials. <i>Epilepsy Research</i> , 2020, 159, 106248.	0.8	32

#	ARTICLE	IF	CITATIONS
19	Behavioral state classification in epileptic brain using intracranial electrophysiology. <i>Journal of Neural Engineering</i> , 2017, 14, 026001.	1.8	31
20	Anterior nucleus of the thalamus seizure detection in ambulatory humans. <i>Epilepsia</i> , 2021, 62, e158-e164.	2.6	31
21	Independent Component Analysis and Decision Trees for ECG Holter Recording De-Noising. <i>PLoS ONE</i> , 2014, 9, e98450.	1.1	29
22	DyNeuMo Mk-2: An Investigational Circadian-Locked Neuromodulator with Responsive Stimulation for Applied Chronobiology. , 2020, 2020, 3433-3440.		29
23	Automated unsupervised behavioral state classification using intracranial electrophysiology. <i>Journal of Neural Engineering</i> , 2019, 16, 026004.	1.8	28
24	A new approach to automated assessment of fractionation of endocardial electrograms during atrial fibrillation. <i>Physiological Measurement</i> , 2008, 29, 1371-1381.	1.2	26
25	Epilepsy Personal Assistant Deviceâ€”A Mobile Platform for Brain State, Dense Behavioral and Physiology Tracking and Controlling Adaptive Stimulation. <i>Frontiers in Neurology</i> , 2021, 12, 704170.	1.1	24
26	Electrocardiographic Predictors of Torsadogenic Risk During Dofetilide or Sotalol Initiation: Utility of a Novel T Wave Analysis Program. <i>Cardiovascular Drugs and Therapy</i> , 2015, 29, 433-441.	1.3	23
27	Semi-supervised training data selection improves seizure forecasting in canines with epilepsy. <i>Biomedical Signal Processing and Control</i> , 2020, 57, 101743.	3.5	23
28	Distributed brain co-processor for tracking spikes, seizures and behaviour during electrical brain stimulation. <i>Brain Communications</i> , 2022, 4, .	1.5	22
29	Identification of Concealed and Manifest Long QT Syndrome Using a Novel T Wave Analysis Program. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2016, 9, .	2.1	21
30	Cloud computing for seizure detection in implanted neural devices. <i>Journal of Neural Engineering</i> , 2019, 16, 026016.	1.8	21
31	Identifying seizure risk factors: A comparison of sleep, weather, and temporal features using a Bayesian forecast. <i>Epilepsia</i> , 2021, 62, 371-382.	2.6	21
32	Human Verbal Memory Encoding Is Hierarchically Distributed in a Continuous Processing Stream. <i>ENeuro</i> , 2019, 6, ENEURO.0214-18.2018.	0.9	21
33	Embedding digital chronotherapy into bioelectronic medicines. <i>IScience</i> , 2022, 25, 104028.	1.9	20
34	Characterization of Complex Fractionated Atrial Electrograms by Sample Entropy: An International Multi-Center Study. <i>Entropy</i> , 2015, 17, 7493-7509.	1.1	18
35	Exploiting Graphoelements and Convolutional Neural Networks with Long Short Term Memory for Classification of the Human Electroencephalogram. <i>Scientific Reports</i> , 2019, 9, 11383.	1.6	18
36	Unsupervised machine-learning classification of electrophysiologically active electrodes during human cognitive task performance. <i>Scientific Reports</i> , 2019, 9, 17390.	1.6	18

#	ARTICLE	IF	CITATIONS
37	Electrical brain stimulation and continuous behavioral state tracking in ambulatory humans. <i>Journal of Neural Engineering</i> , 2022, 19, 016019.	1.8	18
38	Multifractal analysis for grading complex fractionated electrograms in atrial fibrillation. <i>Physiological Measurement</i> , 2015, 36, 2269-2284.	1.2	17
39	Adding wisdom to "smart" bioelectronic systems: a design framework for physiologic control including practical examples. <i>Bioelectronics in Medicine</i> , 2019, 2, 29-41.	2.0	16
40	Multicenter intracranial EEG dataset for classification of graphoelements and artifactual signals. <i>Scientific Data</i> , 2020, 7, 179.	2.4	16
41	Automatic identification of artifacts and unwanted physiologic signals in EEG and EOG during wakefulness. <i>Biomedical Signal Processing and Control</i> , 2017, 31, 381-390.	3.5	15
42	Invasive Electrophysiology for Circuit Discovery and Study of Comorbid Psychiatric Disorders in Patients With Epilepsy: Challenges, Opportunities, and Novel Technologies. <i>Frontiers in Human Neuroscience</i> , 2021, 15, 702605.	1.0	14
43	Independent dynamics of low, intermediate, and high frequency spectral intracranial EEG activities during human memory formation. <i>NeuroImage</i> , 2021, 245, 118637.	2.1	13
44	Utility of T-wave amplitude as a non-invasive risk marker of sudden cardiac death in hypertrophic cardiomyopathy. <i>Open Heart</i> , 2017, 4, e000561.	0.9	12
45	Iterative expert-in-the-loop classification of sleep PSG recordings using a hierarchical clustering. <i>Journal of Neuroscience Methods</i> , 2019, 317, 61-70.	1.3	12
46	Architectural T-Wave Analysis and Identification of On-Therapy Breakthrough Arrhythmic Risk in Type 1 and Type 2 Long-QT Syndrome. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2017, 10, .	2.1	11
47	Noninvasive Blood Pressure Monitor Designed for Patients With Heart Failure Supported with Continuous-Flow Left Ventricular Assist Devices. <i>ASAIO Journal</i> , 2019, 65, 127-133.	0.9	11
48	Differences in mean arterial pressure of young and elderly people measured by oscilometry during inflation and deflation of the arm cuff. <i>Biomedizinische Technik</i> , 2016, 61, 611-621.	0.9	10
49	Characterizing the electrophysiological abnormalities in visually reviewed normal EEGs of drug-resistant focal epilepsy patients. <i>Brain Communications</i> , 2021, 3, fcab102.	1.5	10
50	Sample Entropy Analysis of Noisy Atrial Electrograms during Atrial Fibrillation. <i>Computational and Mathematical Methods in Medicine</i> , 2018, 2018, 1-8.	0.7	9
51	Noninvasive Assessment of Aortic Pulse Wave Velocity by the Brachial Occlusion-Cuff Technique: Comparative Study. <i>Sensors</i> , 2019, 19, 3467.	2.1	9
52	Novel approach to search for individual signal complexes in complex fractionated atrial electrograms using wavelet transform. , 2007, , .		8
53	Electrocardiographic predictors of coronary microvascular dysfunction in patients with non-obstructive coronary artery disease: Utility of a novel T wave analysis program. <i>International Journal of Cardiology</i> , 2016, 203, 601-606.	0.8	8
54	Automated T-wave analysis can differentiate acquired <sc>QT</sc> prolongation from congenital long <sc>QT</sc> syndrome. <i>Annals of Noninvasive Electrocardiology</i> , 2017, 22, .	0.5	8

#	ARTICLE	IF	CITATIONS
55	Creating neural co-processors to explore treatments for neurological disorders. , 2018, , .		7
56	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
57	Comparison of several classifiers to evaluate endocardial electrograms fractionation in human. , 2009, 2009, 2502-5.		5
58	Feature subset selection and classification of intracardiac electrograms during atrial fibrillation. Biomedical Signal Processing and Control, 2017, 38, 182-190.	3.5	5
59	Social Impact based Approach to Feature Subset Selection. Studies in Computational Intelligence, 2008, , 239-248.	0.7	5
60	Discrimination of endocardial electrogram disorganization using a signal regularity analysis. , 2009, 2009, 1812-5.		4
61	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
62	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
63	Deep Brain Stimulation of Anterior Nuclei of the Thalamus and Hippocampal Seizure Rate Modulate Verbal Memory Performance. , 2022, , .		4
64	Comparison of JADE and Canonical Correlation Analysis for ECG de-noising. , 2014, 2014, 3857-60.		3
65	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
66	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
67	Electrophysiological Correlates of Brain Health Help Diagnose Epilepsy and Lateralize Seizure Focus. , 2020, 2020, 3460-3464.		3
68	EVALUATION OF NOVEL ALGORITHM FOR SEARCH OF SIGNAL COMPLEXES TO DESCRIBE COMPLEX FRACTIONATED ATRIAL ELECTROGRAM. , 2008, , .		3
69	AUTOMATIC SEARCH OF INDIVIDUAL SIGNAL COMPLEXES IN COMPLEX FRACTIONATED ATRIAL ELECTROGRAMS USING WAVELET TRANSFORM. , 2008, , .		3
70	Fractionated electrograms and rotors detection in chronic atrial fibrillation using model-based clustering. , 2014, 2014, 1579-82.		2
71	Continuous active probing and modulation of neural networks with a wireless implantable system. , 2017, , .		2
72	Expert-in-the-loop Learning for Sleep EEG Data. , 2018, , .		2

#	ARTICLE	IF	CITATIONS
73	60â€¦Utility of t wave amplitude as a non-invasive risk marker of sudden cardiac death in hypertrophic cardiomyopathy. , 2017, , .		1
74	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
75	USING PSO ALGORITHM TO OPTIMIZE PARAMETERS OF TIME-DOMAIN METHOD FOR COMPLEX FRACTIONATED ATRIAL ELECTROGRAMS EVALUATION. , 2008, , .		1
76	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
77	Hotspot of human verbal memory encoding in the left anterior prefrontal cortex. EBioMedicine, 2022, 82, 104135.	2.7	1
78	Digital Signal Processing and Artificial Intelligence Methods for Intracardial Signal Complexity Evaluation. , 2012, , .		0
79	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
80	Live demonstration: Continuous active probing and modulation of neural networks with a wireless implantable system. , 2017, , .		0
81	Allopregnanolone Pharmacokinetic-Pharmacodynamic Modeling and Simulations in Dogs with Naturally-Occurring Epilepsy. Epilepsy and Behavior, 2019, 101, 106805.	0.9	0
82	Multimedia Support in Education of ECG Signal Analysis. IFMBE Proceedings, 2011, , 1378-1381.	0.2	0
83	Abstract 17597: Quantitative T Wave Analysis Can Identify Patients With Symptomatic Long QT Syndrome. Circulation, 2015, 132, .	1.6	0
84	Hippocampal-ANT connectivity and ANT DBS: Circadian trends and response to stimulation. Brain Stimulation, 2021, 14, 1654.	0.7	0