

# Pavel Jurak

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4212090/publications.pdf>

Version: 2024-02-01

146  
papers

2,031  
citations

218677

26  
h-index

315739

38  
g-index

150  
all docs

150  
docs citations

150  
times ranked

2340  
citing authors

#	ARTICLE	IF	CITATIONS
1	Intracerebral event-related potentials to subthreshold target stimuli. <i>Clinical Neurophysiology</i> , 2001, 112, 650-661.	1.5	88
2	Reproducibility of methods for assessing baroreflex sensitivity in normal controls and in patients with chronic heart failure. <i>Clinical Science</i> , 1999, 97, 515-522.	4.3	86
3	Error processing “ evidence from intracerebral ERP recordings. <i>Experimental Brain Research</i> , 2002, 146, 460-466.	1.5	80
4	Left bundle branch pacing compared to left ventricular septal myocardial pacing increases interventricular dyssynchrony but accelerates left ventricular lateral wall depolarization. <i>Heart Rhythm</i> , 2021, 18, 1281-1289.	0.7	77
5	Physiological and pathological high frequency oscillations in focal epilepsy. <i>Annals of Clinical and Translational Neurology</i> , 2018, 5, 1062-1076.	3.7	71
6	Very high-frequency oscillations: Novel biomarkers of the epileptogenic zone. <i>Annals of Neurology</i> , 2017, 82, 299-310.	5.3	60
7	Intracerebral EEG Artifact Identification Using Convolutional Neural Networks. <i>Neuroinformatics</i> , 2019, 17, 225-234.	2.8	60
8	The role of frontal and temporal lobes in visual discrimination task “ depth ERP studies. <i>Neurophysiologie Clinique</i> , 1999, 29, 339-350.	2.2	53
9	Multi-feature localization of epileptic foci from interictal, intracranial EEG. <i>Clinical Neurophysiology</i> , 2019, 130, 1945-1953.	1.5	53
10	Intracerebral recording of cortical activity related to self-paced voluntary movements: a Bereitschaftspotential and event-related desynchronization/synchronization. SEEG study. <i>Experimental Brain Research</i> , 2006, 173, 637-649.	1.5	51
11	SignalPlant: an open signal processing software platform. <i>Physiological Measurement</i> , 2016, 37, N38-N48.	2.1	51
12	Variability of Phase Shift Between Blood Pressure and Heart Rate Fluctuations. <i>Circulation</i> , 2003, 108, 292-297.	1.6	43
13	The effect of apomorphine administration on smooth pursuit ocular movements in early Parkinsonian patients. <i>Parkinsonism and Related Disorders</i> , 2003, 9, 139-144.	2.2	41
14	Interictal high-frequency oscillations indicate seizure onset zone in patients with focal cortical dysplasia. <i>Epilepsy Research</i> , 2010, 90, 28-32.	1.6	40
15	Reproducibility of methods for assessing baroreflex sensitivity in normal controls and in patients with chronic heart failure. <i>Clinical Science</i> , 1999, 97, 515.	4.3	39
16	Involvement of the subthalamic nucleus and globus pallidus internus in attention. <i>Journal of Neural Transmission</i> , 2011, 118, 1235-1245.	2.8	38
17	Sex-Selective QT Prolongation During Rapid Eye Movement Sleep. <i>Circulation</i> , 2002, 106, 1488-1492.	1.6	37
18	Both selective and nonselective His bundle, but not myocardial, pacing preserve ventricular electrical synchrony assessed by ultra-high-frequency ECG. <i>Heart Rhythm</i> , 2020, 17, 607-614.	0.7	36

#	ARTICLE	IF	CITATIONS
19	The Role of Anterior Nuclei of the Thalamus: A Subcortical Gate in Memory Processing: An Intracerebral Recording Study. PLoS ONE, 2015, 10, e0140778.	2.5	34
20	Parallel use of a convolutional neural network and bagged tree ensemble for the classification of Holter ECG. Physiological Measurement, 2018, 39, 094002.	2.1	34
21	Heart sounds analysis using probability assessment. Physiological Measurement, 2017, 38, 1685-1700.	2.1	33
22	Effect of subthreshold target stimuli on event-related potentials. Electroencephalography and Clinical Neurophysiology, 1998, 107, 64-68.	0.3	32
23	Executive functions processed in the frontal and lateral temporal cortices: Intracerebral study. Clinical Neurophysiology, 2007, 118, 2625-2636.	1.5	32
24	Ictal and peri-ictal oscillations in the human basal ganglia in temporal lobe epilepsy. Epilepsy and Behavior, 2011, 20, 512-517.	1.7	32
25	The Executive Functions in Frontal and Temporal Lobes: A Flanker Task Intracerebral Recording Study. Journal of Clinical Neurophysiology, 2011, 28, 30-35.	1.7	32
26	Ventricular dyssynchrony assessment using ultra-high frequency ECG technique. Journal of Interventional Cardiac Electrophysiology, 2017, 49, 245-254.	1.3	32
27	Taming of the monitors: reducing false alarms in intensive care units. Physiological Measurement, 2016, 37, 1313-1325.	2.1	27
28	Novel ultra-high frequency electrocardiogram tool for the description of the ventricular depolarization pattern before and during cardiac resynchronization. Journal of Cardiovascular Electrophysiology, 2020, 31, 300-307.	1.7	27
29	Use of a novel transfer function to reduce repolarization interval hysteresis. Journal of Interventional Cardiac Electrophysiology, 2010, 29, 23-32.	1.3	26
30	Intracerebrally recorded high frequency oscillations: Simple visual assessment versus automated detection. Clinical Neurophysiology, 2013, 124, 1935-1942.	1.5	26
31	Left Ventricular Myocardial Septal Pacing in Close Proximity to LBB Does Not Prolong the Duration of the Left Ventricular Lateral Wall Depolarization Compared to LBB Pacing. Frontiers in Cardiovascular Medicine, 2021, 8, 787414.	2.4	23
32	Vibration plethysmography: A method for studying the visco-elastic properties of finger arteries. Medical and Biological Engineering and Computing, 1997, 35, 633-637.	2.8	22
33	Synchronization of gamma oscillations increases functional connectivity of human hippocampus and inferior-middle temporal cortex during repetitive visuomotor events. European Journal of Neuroscience, 2004, 19, 3088-3098.	2.6	19
34	Sympathetic neural responses to smoking are age dependent. Journal of Hypertension, 2006, 24, 691-695.	0.5	19
35	False alarms in intensive care unit monitors: Detection of life-threatening arrhythmias using elementary algebra, descriptive statistics and fuzzy logic. , 2015, , .		19
36	Ventricular Electrical Delay Measured From Body Surface ECGs Is Associated With Cardiac Resynchronization Therapy Response in Left Bundle Branch Block Patients From the MADIT-CRT Trial (Multicenter Automatic Defibrillator Implantation-Cardiac Resynchronization Therapy). Circulation: Arrhythmia and Electrophysiology, 2018, 11, e005719.	4.8	19

#	ARTICLE	IF	CITATIONS
37	EEG Reactivity Predicts Individual Efficacy of Vagal Nerve Stimulation in Intractable Epileptics. <i>Frontiers in Neurology</i> , 2019, 10, 392.	2.4	19
38	Neural correlates of affective picture processing – A depth ERP study. <i>NeuroImage</i> , 2009, 47, 376-383.	4.2	18
39	On the Time Course of Synchronization Patterns of Neuronal Discharges in the Human Brain during Cognitive Tasks. <i>PLoS ONE</i> , 2013, 8, e63293.	2.5	18
40	Exploiting Graphoelements and Convolutional Neural Networks with Long Short Term Memory for Classification of the Human Electroencephalogram. <i>Scientific Reports</i> , 2019, 9, 11383.	3.3	18
41	Electrical brain stimulation and continuous behavioral state tracking in ambulatory humans. <i>Journal of Neural Engineering</i> , 2022, 19, 016019.	3.5	18
42	Impact of cognitive stimulation on ripples within human epileptic and non-epileptic hippocampus. <i>BMC Neuroscience</i> , 2015, 16, 47.	1.9	17
43	Automatic Detection of Atrial Fibrillation and Other Arrhythmias in Holter ECG Recordings using PQRS Morphology and Rhythm Features. , 0, , .		17
44	Intracerebral P3-like waveforms and the length of the stimulus–response interval in a visual oddball paradigm. <i>Clinical Neurophysiology</i> , 2005, 116, 160-171.	1.5	16
45	The functional organization of human epileptic hippocampus. <i>Journal of Neurophysiology</i> , 2016, 115, 3140-3145.	1.8	16
46	Multicenter intracranial EEG dataset for classification of graphoelements and artifactual signals. <i>Scientific Data</i> , 2020, 7, 179.	5.3	16
47	Ventricular activation pattern assessment during right ventricular pacing: Ultra–high–frequency ECG study. <i>Journal of Cardiovascular Electrophysiology</i> , 2021, 32, 1385-1394.	1.7	16
48	Thalamic oscillatory activity may predict response to deep brain stimulation of the anterior nuclei of the thalamus. <i>Epilepsia</i> , 2021, 62, e70-e75.	5.1	16
49	Measure of the QT–RR Dynamic Coupling in Patients with the Long QT Syndrome. <i>Annals of Noninvasive Electrocardiology</i> , 2012, 17, 323-330.	1.1	14
50	Heightened acute circulatory responses to smoking in women. <i>Blood Pressure</i> , 2008, 17, 141-146.	1.5	13
51	The posterior medial cortex is involved in visual but not in verbal memory encoding processing: an intracerebral recording study. <i>Journal of Neural Transmission</i> , 2013, 120, 391-397.	2.8	12
52	Identical event-related potentials to target and frequent stimuli of visual oddball task recorded by intracerebral electrodes. <i>Clinical Neurophysiology</i> , 2003, 114, 1292-1297.	1.5	11
53	Dynamic coupling between heart rate and ventricular repolarisation. <i>Biomedizinische Technik</i> , 2007, 52, 255-263.	0.8	11
54	Oscillatory changes in cognitive networks activated during a three-stimulus visual paradigm: An intracerebral study. <i>Clinical Neurophysiology</i> , 2013, 124, 283-291.	1.5	11

#	ARTICLE	IF	CITATIONS
55	Heart rate variability analysed by Poincaré plot in patients with metabolic syndrome. <i>Journal of Electrocardiology</i> , 2016, 49, 23-28.	0.9	11
56	Gene-specific paradoxical QT responses during rapid eye movement sleep in women with congenital long QT syndrome. <i>Heart Rhythm</i> , 2010, 7, 1067-1074.	0.7	10
57	Mismatch negativity-like potential (MMN-like) in the subthalamic nuclei in Parkinson's disease patients. <i>Journal of Neural Transmission</i> , 2014, 121, 1507-1522.	2.8	10
58	High-Frequency Oscillations in the Human Anterior Nucleus of the Thalamus. <i>Brain Stimulation</i> , 2016, 9, 629-631.	1.6	10
59	The relationship between ECG predictors of cardiac resynchronization therapy benefit. <i>PLoS ONE</i> , 2019, 14, e0217097.	2.5	10
60	Fully automated QRS area measurement for predicting response to cardiac resynchronization therapy. <i>Journal of Electrocardiology</i> , 2020, 63, 159-163.	0.9	9
61	A multichannel bioimpedance monitor for full-body blood flow monitoring. <i>Biomedizinische Technik</i> , 2016, 61, 107-118.	0.8	8
62	Suboptimal response to STN-DBS in Parkinson's disease can be identified via reaction times in a motor cognitive paradigm. <i>Journal of Neural Transmission</i> , 2020, 127, 1579-1588.	2.8	8
63	Dynamic QT/RR Coupling in Patients with Pacemakers. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2007, 2007, 919-22.	0.5	7
64	The Effect of Short-term Isometric Muscle Contraction and the Valsalva Maneuver on Systemic and Pulmonary Hemodynamics in Patients with Severe Heart Failure. <i>Clinical Cardiology</i> , 2009, 32, E31-E38.	1.8	7
65	Subthalamic nucleus involvement in executive functions with increased cognitive load: a subthalamic nucleus and anterior cingulate cortex depth recording study. <i>Journal of Neural Transmission</i> , 2014, 121, 1287-1296.	2.8	7
66	Towards real-time QRS feature extraction for wearable monitors. , 2016, 2016, 3519-3522.		7
67	CudaFilters: A SignalPlant library for GPU-accelerated FFT and FIR filtering. <i>Software - Practice and Experience</i> , 2018, 48, 3-9.	3.6	7
68	Automated Sleep Arousal Detection Based on EEG Envelopgrams. , 0, , .		7
69	Menopause, hormone replacement and RR and QT modulation during sleep. <i>Sleep Medicine</i> , 2005, 6, 561-566.	1.6	6
70	P3 and ERD/ERS in a Visual Oddball Paradigm. <i>Journal of Psychophysiology</i> , 2006, 20, 32-39.	0.7	6
71	Complex Motor-Cognitive Factors Processed in the Anterior Nucleus of the Thalamus: An Intracerebral Recording Study. <i>Brain Topography</i> , 2015, 28, 269-278.	1.8	6
72	3-Dimensional ventricular electrical activation pattern assessed from a novel high-frequency electrocardiographic imaging technique: principles and clinical importance. <i>Scientific Reports</i> , 2021, 11, 11469.	3.3	6

#	ARTICLE	IF	CITATIONS
73	Cortical network organization reflects clinical response to subthalamic nucleus deep brain stimulation in Parkinson's disease. <i>Human Brain Mapping</i> , 2021, 42, 5626-5635.	3.6	6
74	Respiratory-Induced Hemodynamic Changes Measured by Whole-Body Multichannel Impedance Plethysmography. <i>Physiological Research</i> , 2018, 67, 571-581.	0.9	6
75	Multichannel QRS Morphology Clustering - Data Preprocessing for Ultra-High-Frequency ECG Analysis. , 2015, , .		6
76	Connectivity of epileptic brain regions in wake and sleep. , 2015, 2015, 2191-4.		5
77	Oscillatory reactivity to effortful cognitive processing in the subthalamic nucleus and internal pallidum: a depth electrode EEG study. <i>Journal of Neural Transmission</i> , 2017, 124, 841-852.	2.8	5
78	Fully automatic detection of strict left bundle branch block. <i>Journal of Electrocardiology</i> , 2018, 51, S31-S34.	0.9	5
79	Comparison of noninvasive pulse transit time determined from Doppler aortic flow and multichannel bioimpedance plethysmography. <i>Medical and Biological Engineering and Computing</i> , 2019, 57, 1151-1158.	2.8	5
80	Endovascular brain intervention and mapping in a dog experimental model using magnetically-guided micro-catheter technology. <i>Biomedical Papers of the Medical Faculty of the University Palacky&amp;#x0301;, Olomouc, Czechoslovakia</i> , 2014, 158, 221-226.	0.6	5
81	An additional marker of ventricular dyssynchrony. , 2015, , .		4
82	Ambulatory monitoring of myocardial ischemia in the 21st centuryâ€™an opportunity for high frequency QRS analysis. <i>Journal of Electrocardiology</i> , 2016, 49, 902-906.	0.9	4
83	Efficient implementation of Stockwell Transform for real-time embedded processing of physiologic signals. , 2017, 2017, 2598-2601.		4
84	The VED Meter - a New Tool to Measure the Ventricular Conduction Abnormalities in Heart Failure Patients. , 2017, , .		4
85	A Novel Statistical Model for Predicting the Efficacy of Vagal Nerve Stimulation in Patients With Epilepsy (Pre-X-Stim) Is Applicable to Different EEG Systems. <i>Frontiers in Neuroscience</i> , 2021, 15, 635787.	2.8	4
86	QT/RR Coupling and Gender Differences. <i>Computing in Cardiology</i> , 2010, 37, 365-368.	0.4	4
87	Arterial Aging Best Reflected in Pulse Wave Velocity Measured from Neck to Lower Limbs: A Whole-Body Multichannel Bioimpedance Study. <i>Sensors</i> , 2022, 22, 1910.	3.8	4
88	Classification of ECG using ensemble of residual CNNs with or without attention mechanism. <i>Physiological Measurement</i> , 2022, 43, 044001.	2.1	4
89	Two-Channel Bioimpedance Monitor for Impedance Cardiography. , 2006, 2006, 6061-3.		3
90	Hippocampal negative event-related potential recorded in humans during a simple sensorimotor task occurs independently of motor execution. <i>Hippocampus</i> , 2013, 23, 1337-1344.	1.9	3

#	ARTICLE	IF	CITATIONS
91	Discrimination of Normal and Abnormal Heart Sounds Using Probability Assessment. , 0, ,		3
92	Excitation specificity of repolarization parameters. , 2011, 2011, 961-4.		2
93	Pulse Wave Velocity and Cardiac Output vs. Heart Rate in Patients with an Implanted Pacemaker Based on Electric Impedance Method Measurement. Journal of Physics: Conference Series, 2013, 434, 012050.	0.4	2
94	Influence of tilt load on pulse wave velocity in the lower limbs. , 2014, , .		2
95	Combined e-beam lithography using different energies. Microelectronic Engineering, 2017, 177, 30-34.	2.4	2
96	Fast Detection of Ventricular Tachycardia and Fibrillation in 1-Lead ECG from Three-Second Blocks. , 0, , .		2
97	Shape Analysis of Consecutive Beats May Help in the Automated Detection of Atrial Fibrillation. , 2018, , .		2
98	Changes in connectivity and local synchrony after cognitive stimulation â€œ Intracerebral EEG study. Biomedical Signal Processing and Control, 2018, 45, 136-143.	5.7	2
99	The Relationship between Mechanical and Electrical Dyssynchrony. , 0, , .		2
100	Precise pacing artefact detection. , 0, , .		2
101	QRS Complex Detection in Paced and Spontaneous Ultra-High-Frequency ECG. , 2021, , .		2
102	Pre-implant Heart Activity Differs in Responders and Non-responders to Vagal Nerve Stimulation Therapy in Epileptic Patients. , 2021, 2021, 5816-5819.		2
103	Changes of Pulse Wave Velocity in the lower limbs in hypertensive patients. , 2015, , .		1
104	Respiratory induced heart rate variability during slow mechanical ventilation. Wiener Klinische Wochenschrift, 2017, 129, 251-258.	1.9	1
105	Intracranial EEG Connectivity Analysis and Result Imaging. International Journal of Bioscience, Biochemistry, Bioinformatics (IJBBB), 2012, , 275-279.	0.2	1
106	Analysis of Time Evolution of Couplings in the Repetitive EEG. , 2012, , .		1
107	Automatic Detection of Strict Left Bundle Branch Block. IFMBE Proceedings, 2019, , 435-439.	0.3	1
108	A Method for Removing Pacing Artifacts From Ultra-High-Frequency Electrocardiograms. , 0, , .		1

#	ARTICLE	IF	CITATIONS
109	VDI Vision - Analysis of Ventricular Electrical Dyssynchrony in Real-Time. , 2021, , .		1
110	Noninvasive Detection of Vessel Stiffness from Continuous Blood Pressure Recordings in Hypertensive Subjects. , 2006, 2006, 3222-5.		0
111	Cardiac Output Measurement in Patients with an Implanted Pacemaker. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 916-8.	0.5	0
112	Blood Pressure Dynamics in Hypertensive Subjects During Tilt Table Test. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 939-42.	0.5	0
113	PO18-WE-17 Interictal high-frequency oscillations indicate seizure onset zone in patients with focal cortical dysplasia. Journal of the Neurological Sciences, 2009, 285, S248.	0.6	0
114	Respiratory induced heart rate and blood pressure variability during mechanical ventilation in critically ill and brain death patients. , 2012, 2012, 3821-4.		0
115	Effect of cognitive stimulation on hippocampal ripples in epileptic patients. Journal of the Neurological Sciences, 2013, 333, e35.	0.6	0
116	Analysis of evoked deep brain connectivity. , 2013, 2013, 4358-61.		0
117	Statistical significance of task related deep brain EEG dynamic changes in the time-frequency domain. , 2013, 2013, 1025-8.		0
118	The analysis of linear/nonlinear coupling between heart rate and QT intervals. , 2014, , .		0
119	Time-frequency interpretation of ultra-high-frequency QRS components. , 2014, , .		0
120	Can we hear ventricle dyssynchrony? Yes, we can. , 2015, 2015, 6527-30.		0
121	Cardiac resynchronization efficiency estimation by new ultra-high-frequency ECG dyssynchrony descriptor. , 2015, , .		0
122	The impact of sedation on pulse pressure variation. Australian Critical Care, 2015, 28, 203-207.	1.3	0
123	Repolarization parameters in heart transplant subjects. , 2015, , .		0
124	ARE SUBTHALAMICUS NUCLEUS, INTERNAL GLOBUS PALLIDUS AND THALAMUS INVOLVED IN THINKING?. Journal of Neurology, Neurosurgery and Psychiatry, 2015, 86, e4.77-e4.	1.9	0
125	Interictal very fast ripples (500-1000 Hz) and ultra fast ripples (1-2 kHz): Novel biomarkers of the epileptogenic zone. Journal of the Neurological Sciences, 2017, 381, 337.	0.6	0
126	Are the subthalamic nucleus, internal globus pallidus and thalamus involved in thinking?. Basal Ganglia, 2018, 14, 22-30.	0.3	0



#	ARTICLE	IF	CITATIONS
127	Response to Vagal Stimulation by Heart-rate Features in Drug-resistant Epileptic Patients*. , 2020, 2020, 46-49.		0
128	Cover Image, Volume 32, Issue 5. Journal of Cardiovascular Electrophysiology, 2021, 32, ii.	1.7	0
129	CHANGES IN AUTOREGULATION OF BRAIN CIRCULATION IN PATIENTS WITH VASOVAGAL SYNCOPE DURING TILT TABLE TEST. Journal of Hypertension, 2000, 18, S60.	0.5	0
130	THE INFLUENCE OF SYMPATHETIC CHOLINERGIC SYSTEM ON BLOOD PRESSURE REGULATION. Journal of Hypertension, 2000, 18, S60.	0.5	0
131	BREATHING AND TESTING OF AUTONOMIC NERVOUS SYSTEM. Journal of Hypertension, 2000, 18, S59.	0.5	0
132	THE EFFECT OF VALSALVA MANEUVER AND SHORT ISOMETRIC CONTRACTION ON AUTONOMIC FUNCTIONS AND CORONARY FLOW IN PATIENTS WITH SEVERE CHRONIC HEART FAILURE. Journal of Hypertension, 2004, 22, S92.	0.5	0
133	CHANGES IN AUTONOMIC FUNCTIONS DURING TILT TABLE TEST WITH PACED BREATHING IN YOUNG AND ELDERLY HEALTHY VOLUNTEERS. Journal of Hypertension, 2004, 22, S27.	0.5	0
134	Biventricular Pacing Optimization by Means of the Dyssynchrony Parameter. , 0, , .		0
135	Attenuation of QRS Power in the Frequency Range from 0.05 to 1 kHz. , 0, , .		0
136	Reverse Electrical Remodeling Assessed by High-Frequency QRS Dyssynchrony and QRS Duration. , 0, , .		0
137	High Frequency QRS Analysis From Orthogonal Leads. , 0, , .		0
138	Epicardial Isochrones from a New High-Frequency ECG Imaging Technique. , 0, , .		0
139	Body-Surface Mapping Using High-Frequency ECG to Characterize Electrical Activation Delay. , 0, , .		0
140	High-Frequency Cardiac Electrophysiology. , 2019, , .		0
141	Comparison of UHF-ECG with Other Noninvasive Electrophysiological Mapping Tools for Assessing Ventricular Dyssynchrony. , 2021, , .		0
142	Ultra-High-Frequency Electrocardiography. , 2021, , .		0
143	Physiological versus non-physiological cardiac pacing as assessed by Ultra-high-frequency electrocardiography. , 2021, , .		0
144	Ultra-fast oscillation detection in EEG signal from deep-brain microelectrodes. , 2021, 2021, 265-268.		0

#	ARTICLE	IF	CITATIONS
145	Bilateral bundle branch capture during deep septal myocardial and nonselective left bundle branch pacing preserves interventricular synchrony. <i>Europace</i> , 2022, 24, .	1.7	0
146	Left bundle branch pacing with normal paced QRS axis produce more physiological left ventricular lateral wall depolarization than its pacing resulting in heart axis deviation. <i>Europace</i> , 2022, 24, .	1.7	0