Mika P Tarvainen

List of Publications by Citations

123 papers	4,516 citations	28 h-index	66 g-index
136 ext. papers	5,681 ext. citations	2.9 avg, IF	5.57 L-index

#	Paper	IF	Citations
123	Kubios HRV--heart rate variability analysis software. *Computer Methods and Programs in Biomedicine* , **2014**, 113, 210-20	6.9	1248
122	An advanced detrending method with application to HRV analysis. *IEEE Transactions on Biomedical Engineering*, **2002**, 49, 172-5	5	686
121	Software for advanced HRV analysis. *Computer Methods and Programs in Biomedicine*, **2004**, 76, 73-81	6.9	480
120	Where to put your best foot forward: Psycho-physiological responses to walking in natural and urban environments. *Journal of Environmental Psychology*, **2016**, 45, 22-29	6.7	139
119	The effects of views of nature on autonomic control. *European Journal of Applied Physiology*, **2012**, 112, 3379-86	3.4	89
118	Estimation of nonstationary EEG with Kalman smoother approach: an application to event-related synchronization (ERS). *IEEE Transactions on Biomedical Engineering*, **2004**, 51, 516-24	5	84
117	Novel parameters of surface EMG in patients with Parkinson's disease and healthy young and old controls. *Journal of Electromyography and Kinesiology*, **2009**, 19, e206-13	2.5	78
116	Heart rate variability in acute psychosis. *Psychophysiology*, **2003**, 40, 716-26	4.1	76
115	Cue reactivity and its relation to craving and relapse in alcohol dependence: a combined laboratory and field study. *Psychopharmacology*, **2015**, 232, 3685-96	4.7	69
114	Perceived mental stress and reactions in heart rate variability--a pilot study among employees of an electronics company. *International Journal of Occupational Safety and Ergonomics*, **2008**, 14, 275-83	2.1	65
113	The relationships among heart rate variability, executive functions, and clinical variables in patients with panic disorder. *International Journal of Psychophysiology*, **2012**, 86, 269-75	2.9	64
112	Heart rate variability and occupational stress-systematic review. *Industrial Health*, **2018**, 56, 500-511	2.5	63
111	Surface EMG and acceleration signals in Parkinson's disease: feature extraction and cluster analysis. *Medical and Biological Engineering and Computing*, **2008**, 46, 849-58	3.1	63
110	Single-trial dynamical estimation of event-related potentials: a Kalman filter-based approach. *IEEE Transactions on Biomedical Engineering*, **2005**, 52, 1397-406	5	61
109	Cognitive, behavioral, and autonomic correlates of mind wandering and perseverative cognition in major depression. *Frontiers in Neuroscience*, **2014**, 8, 433	5.1	59
108	Kubios HRV A Software for Advanced Heart Rate Variability Analysis. *IFMBE Proceedings*, **2009**, 1022-1025	2	59
107	Time-varying analysis of heart rate variability signals with a Kalman smoother algorithm. *Physiological Measurement*, **2006**, 27, 225-39	2.9	57

106	The Relationship Between Spectral Changes in Heart Rate Variability and Fatigue. *Journal of Psychophysiology*, **2009**, 23, 143-151	1	56
105	Cognitive rigidity is mirrored by autonomic inflexibility in daily life perseverative cognition. *Biological Psychology*, **2015**, 107, 24-30	3.2	47
104	A robust algorithm for heart rate variability time series artefact correction using novel beat classification. *Journal of Medical Engineering and Technology*, **2019**, 43, 173-181	1.8	46
103	Processing intrusion detection alert aggregates with time series modeling. *Information Fusion*, **2009**, 10, 312-324	16.7	44
102	Analysis of surface EMG signal morphology in Parkinson's disease. *Physiological Measurement*, **2007**, 28, 1507-21	2.9	42
101	Cardiac autonomic dysfunction in type 2 diabetes - effect of hyperglycemia and disease duration. *Frontiers in Endocrinology*, **2014**, 5, 130	5.7	38
100	Normal values for heart rate variability parameters in children 6-8 years of age: the PANIC Study. *Clinical Physiology and Functional Imaging*, **2014**, 34, 290-6	2.4	38
99	Linear and nonlinear tremor acceleration characteristics in patients with Parkinson's disease. *Physiological Measurement*, **2012**, 33, 395-412	2.9	34
98	Heart rate variability during acute psychosocial stress: A randomized cross-over trial of verbal and non-verbal laboratory stressors. *International Journal of Psychophysiology*, **2018**, 127, 17-25	2.9	30
97	Non-Linear EMG Parameters for Differential and Early Diagnostics of Parkinson's Disease. *Frontiers in Neurology*, **2013**, 4, 135	4.1	29
96	Dynamic time-varying analysis of heart rate and blood pressure variability in cats exposed to short-term chronic intermittent hypoxia. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2008**, 295, R28-37	3.2	28
95	Effects of nutritive and non-nutritive sucking on infant heart rate variability during the first 6 months of life. *Research in Social and Administrative Pharmacy*, **2007**, 30, 546-56	2.9	28
94	Analysis of galvanic skin responses with principal components and clustering techniques. *IEEE Transactions on Biomedical Engineering*, **2001**, 48, 1071-9	5	27
93	How to Calculate Renyi Entropy from Heart Rate Variability, and Why it Matters for Detecting Cardiac Autonomic Neuropathy. *Frontiers in Bioengineering and Biotechnology*, **2014**, 2, 34	5.8	26
92	Analysis of EMG and acceleration signals for quantifying the effects of deep brain stimulation in Parkinson's disease. *IEEE Transactions on Biomedical Engineering*, **2011**, 58, 2545-53	5	26
91	Effect of heart rate correction on pre- and post-exercise heart rate variability to predict risk of mortality-an experimental study on the FINCAVAS cohort. *Frontiers in Physiology*, **2014**, 5, 208	4.6	24
90	A Lunchtime Walk in Nature Enhances Restoration of Autonomic Control during Night-Time Sleep: Results from a Preliminary Study. *International Journal of Environmental Research and Public Health*, **2016**, 13,	4.6	22
89	Heart rate variability dynamics during low-dose propofol and dexmedetomidine anesthesia. *Annals of Biomedical Engineering*, **2012**, 40, 1802-13	4.7	21

No.	Title		
88	Analysis of dynamic voluntary muscle contractions in Parkinson's disease. *IEEE Transactions on Biomedical Engineering*, **2009**, 56, 2280-8	5	20
87	A Comparison of Nonlinear Measures for the Detection of Cardiac Autonomic Neuropathy from Heart Rate Variability. *Entropy*, **2015**, 17, 1425-1440	2.8	17
86	Subjective sleep quality in relation to inhibition and heart rate variability in patients with panic disorder. *Journal of Affective Disorders*, **2013**, 150, 152-5	6.6	17
85	Intensified emotion perception in depression: Differences in physiological arousal and subjective perceptions. *Psychiatry Research*, **2017**, 253, 303-310	9.9	16
84	Principal component model for maternal ECG extraction in fetal QRS detection. *Physiological Measurement*, **2014**, 35, 1637-48	2.9	16
83	Associations of physical activity, sedentary time, and cardiorespiratory fitness with heart rate variability in 6- to 9-year-old children: the PANIC study. *European Journal of Applied Physiology*, **2019**, 119, 2487-2498	3.4	15
82	Recovery from sauna bathing favorably modulates cardiac autonomic nervous system. *Complementary Therapies in Medicine*, **2019**, 45, 190-197	3.5	15
81	Oscillatory TMS-EEG-Responses as a Measure of the Cortical Excitability Threshold. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2018**, 26, 383-391	4.8	15
80	Differences in heart rate variability of female nurses between and within normal and extended work shifts. *Industrial Health*, **2013**, 51, 154-64	2.5	15
79	Wrist band photoplethysmography in detection of individual pulses in atrial fibrillation and algorithm-based detection of atrial fibrillation. *Europace*, **2019**, 21, 1031-1038	3.9	14
78	Dynamic estimation of cardiac repolarization characteristics during hypoglycemia in healthy and diabetic subjects. *Physiological Measurement*, **2011**, 32, 649-60	2.9	14
77	Boundary element method and internal electrodes in electrical impedance tomography. *International Journal for Numerical Methods in Engineering*, **2001**, 50, 809-824	2.4	14
76	High-resolution QRS fiducial point corrections in sparsely sampled ECG recordings. *Physiological Measurement*, **2005**, 26, 743-51	2.9	12
75	A principal component regression approach for estimation of ventricular repolarization characteristics. *IEEE Transactions on Biomedical Engineering*, **2010**, 57, 1062-9	5	11
74	Heart rate variability derived from exercise ECG in the detection of coronary artery disease. *Physiological Measurement*, **2007**, 28, 1189-200	2.9	11
73	Electrical and mechanical dyssynchrony in patients with right bundle branch block. *Journal of Nuclear Cardiology*, **2020**, 27, 621-630	2.1	11
72	Nitroglycerin-induced changes in facial skin temperature: 'cold nose' as a predictor of headache?. *Clinical Physiology and Functional Imaging*, **2013**, 33, 409-17	2.4	10
71	Principal Component Analysis of the Longitudinal Carotid Wall Motion in Association with Vascular Stiffness: A Pilot Study. *Ultrasound in Medicine and Biology*, **2016**, 42, 2873-2886	3.5	10

70	Relationships between electrical and mechanical dyssynchrony in patients with left bundle branch block and healthy controls. *Journal of Nuclear Cardiology*, **2019**, 26, 1228-1239	2.1	10
69	Measurements of skin temperature responses to cold exposure of foot and face in healthy individuals: variability and influencing factors. *Clinical Physiology and Functional Imaging*, **2011**, 31, 307-14	2.4	9
68	Psychophysiological responses to positive and negative food and nonfood visual stimuli.. *Journal of Neuroscience, Psychology, and Economics*, **2016**, 9, 78-88	1.6	9
67	Complexity of heart rate variability in type 2 diabetes - effect of hyperglycemia. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 5558-61	0.9	8
66	Using Renyi entropy to detect early cardiac autonomic neuropathy. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 5562-5	0.9	8
65	Effects of implementing an ergonomic work schedule on heart rate variability in shift-working nurses. *Journal of Occupational Health*, **2013**, 55, 225-33	2.3	8
64	Effectiveness of the Chest Strap Electrocardiogram to Detect Atrial Fibrillation. *American Journal of Cardiology*, **2019**, 123, 1643-1648	3	8
63	The correlation of vectorcardiographic changes to blood lactate concentration during an exercise test. *Biomedical Signal Processing and Control*, **2013**, 8, 491-499	4.9	7
62	Principal component analysis of heart rate variability data in assessing cardiac autonomic neuropathy. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 6667-70	0.9	7
61	Hypoglycemia detection based on cardiac repolarization features. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 4697-700	0.9	7
60	Fluctuations in heart rate variability of health care workers during four consecutive extended work shifts and recovery during rest and sleep. *Industrial Health*, **2018**, 56, 122-131	2.5	7
59	Moderating effects of the valence of social interaction on the dysfunctional consequences of perseverative cognition: an ecological study in major depression and social anxiety disorder. *Anxiety, Stress and Coping*, **2019**, 32, 179-195	3.1	6
58	Depression and cardiac dysautonomia in eating disorders. *Eating and Weight Disorders*, **2018**, 23, 369-374	3.6	6
57	Transfer Function Analysis of the Longitudinal Motion of the Common Carotid Artery Wall. *Frontiers in Physiology*, **2016**, 7, 651	4.6	6
56	Higher levels of Depressive Symptoms are Associated with Increased Resting-State Heart Rate Variability and Blunted Reactivity to a Laboratory Stress Task among Healthy Adults. *Applied Psychophysiology Biofeedback*, **2019**, 44, 221-234	3.4	5
55	Heart rate variability evaluation of Emfit sleep mattress breathing categories in NREM sleep. *Clinical Neurophysiology*, **2015**, 126, 967-74	4.3	5
54	Assessment of the acute impact of normobaric hypoxia as a part of an intermittent hypoxic training on heart rate variability. *Cor Et Vasa*, **2015**, 57, e251-e256	0.3	5
53	Physiological stress response patterns during a blood donation. *Vox Sanguinis*, **2018**, 113, 357-367	3.1	5

52	Autonomic responses to tooth clenching in migraineurs-augmented trigeminocardiac reflex?. *Journal of Oral Rehabilitation*, **2018**, 45, 764-769	3.4	5
51	Time-varying spectrum estimation of heart rate variability signals with Kalman smoother algorithm. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 1-4	0.9	5
50	Wrist Band Photoplethysmography Autocorrelation Analysis Enables Detection of Atrial Fibrillation Without Pulse Detection. *Frontiers in Physiology*, **2021**, 12, 654555	4.6	5
49	Multiscale Renyi Entropy and Cardiac Autonomic Neuropathy **2015**,		4
48	Analysis of heart rate variability dynamics during propofol and dexmedetomidine anesthesia. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 1634-7	0.9	4
47	N100 auditory potential and electroencephalogram discriminate propofol-induced sedation levels. *Journal of Clinical Monitoring and Computing*, **2004**, 18, 163-70	2	4
46	Use of Room Temperature Semiconductor Detectors for the Verification of Nuclear Material in International Safeguards Recent Advances. *Materials Research Society Symposia Proceedings*, **1993**, 302, 19		4
45	Associations of cardiometabolic risk factors with heart rate variability in 6- to 8-year-old children: The PANIC Study. *Pediatric Diabetes*, **2020**, 21, 251-258	3.6	4
44	Psycho-physiological responses of repeated exposure to natural and urban environments. *Landscape and Urban Planning*, **2021**, 209, 104061	7.7	4
43	Cardiac Autonomic Activity in Commercial Aircrew During an Actual Flight Duty Period. *Aerospace Medicine and Human Performance*, **2019**, 90, 945-952	1.1	4
42	Determinants of Cardiorespiratory Fitness in a Population Sample of Girls and Boys Aged 6 to 8 Years. *Journal of Physical Activity and Health*, **2016**, 13, 1149-1155	2.5	3
41	Experimental study on the effects of isoflurane with and without remifentanil or dexmedetomidine on heart rate variability before and after nociceptive stimulation at different MAC multiples in cats. *BMC Veterinary Research*, **2019**, 15, 258	2.7	3
40	Autonomic nervous system response to L-dopa in patients with advanced Parkinson's disease. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 6162-5	0.9	3
39	Causal estimation of neural and overall baroreflex sensitivity in relation to carotid artery stiffness. *Physiological Measurement*, **2013**, 34, 1633-44	2.9	3
38	Discrimination of EMG and acceleration measurements between patients with Parkinson's disease and healthy persons. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 4878-81	0.9	3
37	Method for testing motion analysis laboratory measurement systems. *Journal of Biomechanical Engineering*, **2010**, 132, 114501	2.1	3
36	From Individual Output to Pooled Data. *Journal of Psychophysiology*, **2018**, 32, 157-159	1	3
35	Nutritive sucking induces age-specific EEG-changes in 0-24 week-old infants. *Research in Social and Administrative Pharmacy*, **2016**, 45, 98-108	2.9	3

34	Necklace-embedded electrocardiogram for the detection and diagnosis of atrial fibrillation. *Clinical Cardiology*, **2021**, 44, 620-626	3.3	3
33	Investigation of Linear and Nonlinear Properties of a Heartbeat Time Series Using Multiscale Rēyi Entropy. *Entropy*, **2019**, 21,	2.8	2
32	Complex nonlinear autonomic nervous system modulation link cardiac autonomic neuropathy and peripheral vascular disease. *Frontiers in Physiology*, **2015**, 6, 101	4.6	2
31	A subspace method for dynamical estimation of evoked potentials. *Computational Intelligence and Neuroscience*, **2007**, 2007, 61916	3	2
30	Time-varying analysis of heart rate variability with kalman smoother algorithm. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2005**, 2005, 2718-21		2
29	Autonomic responses to tooth clenching and handgrip test.. *Acta Odontologica Scandinavica*, **2022**, 1-7	2.2	2
28	Work community factors, occupational well-being and work ability in home care: A structural equation modelling. *Nursing Open*, **2021**, 8, 3190-3200	2.1	2
27	Heart rate reactivity associated to positive and negative food and non-food visual stimuli. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 5279-5282	0.9	1
26	Effects of a reduction in the number of short intervals between work shifts on heart rate variability: A prospective field study of female nurses. *Clinical Nursing Studies*, **2015**, 3,	0.1	1
25	Evaluation of normalised Renyi entropy for classification of cardiac autonomic neuropathy **2014**,		1
24	Cholesterol metabolism, endothelial dysfunction, and carotid artery stiffness in type 1 diabetes?. *Artery Research*, **2011**, 5, 8	2.2	1
23	Analysis of dynamic EMG and acceleration measurements in Parkinsons disease. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 5053-6	0.9	1
22	On correlation between single-trial ERP and GSR responses: a principal component regression approach. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, 2006, 5499-502		1
21	Noise sensitivity of a principal component regression based RT interval variability estimation method. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, 2006, 3098-101		1
20	Principal Component Regression Approach for QT Variability Estimation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2005**, 2005, 1145-7		1
19	Heart rate variability and chronotype - a systematic review. *Chronobiology International*, **2021**, 38, 1786-1796	3.7	1
18	Dynamic modeling of respiratory sinus arrhythmia component from HRV with multivariate Kalman smoother. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 1684-7	0.9	0
17	Cerebral cortex and sub-cortex lateralization in cardiovascular regulation: correlations of BOLD fMRI and heart rate variability. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 3412-5	0.9	0

16	Continuous 24-h Photoplethysmogram Monitoring Enables Detection of Atrial Fibrillation.. *Frontiers in Physiology*, **2021**, 12, 778775	4.6	0
15	Automatic Mobile Health Arrhythmia Monitoring for the Detection of Atrial Fibrillation: Prospective Feasibility, Accuracy, and User Experience Study. *JMIR MHealth and UHealth*, **2021**, 9, e29933	5.5	0
14	Heart Rate Variability During Cardiorespiratory Exercise Test in Type 1 Diabetes. *IFMBE Proceedings*, **2018**, 181-184	0.2	0
13	Altered Expiratory Flow Dynamics at Peak Exercise in Adult Men With Well-Controlled Type 1 Diabetes.. *Frontiers in Physiology*, **2022**, 13, 836814	4.6	0
12	Visualization methods for assisting detection of cardiovascular neuropathy. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 6675-8	0.9	
11	Relation of arterial stiffness and axial motion of the carotid artery wall - a pilot study to test our motion tracking algorithm in practice. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, 2014, 2014, 841-8	0.9	
10	EMG and acceleration signal analysis for quantifying the effects of medication in Parkinson's disease. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 7496-9	0.9	
9	Kalman smoother based time-varying spectrum estimation of EEG during single agent propofol anesthesia. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 5709-12	0.9	
8	Estimation of arterial baroreflex sensitivity in relation to carotid artery stiffness. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2012**, 2012, 3408-11	0.9	
7	Tracking single-trial evoked potential changes with Kalman filtering and smoothing. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 157-60	0.9	
6	Estimation of single-trial fMRI BOLD responses using combined EEG and fMRI measurements. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 299-302	0.9	
5	Subspace approaches for FMRI time series estimation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2007**, 2007, 5485-8		
4	The association between chronotype and sleep quality among female home care workers performing shift work.. *Chronobiology International*, **2022**, 1-10	3.6	
3	A Principal Component Regression Approach for Estimation of Ventricular Repolarization Characteristics. *IFMBE Proceedings*, **2009**, 385-388	0.2	
2	Socioeconomic status, age and heart rate variability in a Bangladeshi community. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 5283-5285	0.9	
1	Verbalization has regulatory influences on autonomic activity during recall of unpleasant experience. *Speech Communication*, **2021**, 126, 1-8	2.8	