Pasi A Karjalainen

List of Publications by Year
in descending order

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129	6,895	136740	62479
papers	citations	32 h-index	80 g-index

134	134	134	7975
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Kubios HRV â€“ Heart rate variability analysis software. Computer Methods and Programs in Biomedicine, 2014, 113, 210-220.	2.6	1,878
2	An advanced detrending method with application to HRV analysis. IEEE Transactions on Biomedical Engineering, 2002, 49, 172-175.	2.5	898
3	Software for advanced HRV analysis. Computer Methods and Programs in Biomedicine, 2004, 76, 73-81.	2.6	593
4	Tikhonov regularization and prior information in electrical impedance tomography. IEEE Transactions on Medical Imaging, 1998, 17, 285-293.	5.4	476
5	Increased fMRI responses during encoding in mild cognitive impairment. Neurobiology of Aging, 2007, 28, 1889-1903.	1.5	298
6	A Kalman filter approach to track fast impedance changes in electrical impedance tomography. IEEE Transactions on Biomedical Engineering, 1998, 45, 486-493.	2.5	154
7	Assessment of errors in static electrical impedance tomography with adjacent and trigonometric current patterns. Physiological Measurement, 1997, 18, 289-303.	1.2	134
8	Estimation of Nonstationary EEG With Kalman Smoother Approach: An Application to Event-Related Synchronization (ERS). IEEE Transactions on Biomedical Engineering, 2004, 51, 516-524.	2.5	105
9	Novel parameters of surface EMG in patients with Parkinsonâ€™s disease and healthy young and old controls. Journal of Electromyography and Kinesiology, 2009, 19, e206-e213.	0.7	103
10	Electrical impedance tomography with basis constraints. Inverse Problems, 1997, 13, 523-530.	1.0	92
11	Perceived Mental Stress and Reactions in Heart Rate Variabilityâ€”A Pilot Study Among Employees of an Electronics Company. International Journal of Occupational Safety and Ergonomics, 2008, 14, 275-283.	1.1	91
12	Heart rate variability in acute psychosis. Psychophysiology, 2003, 40, 716-726.	1.2	85
13	Surface EMG and acceleration signals in Parkinsonâ€™s disease: feature extraction and cluster analysis. Medical and Biological Engineering and Computing, 2008, 46, 849-858.	1.6	78
14	Single-Trial Dynamical Estimation of Event-Related Potentials: A Kalman Filter-Based Approach. IEEE Transactions on Biomedical Engineering, 2005, 52, 1397-1406.	2.5	77
15	The Relationship Between Spectral Changes in Heart Rate Variability and Fatigue. Journal of Psychophysiology, 2009, 23, 143-151.	0.3	75
16	Time-varying analysis of heart rate variability signals with a Kalman smoother algorithm. Physiological Measurement, 2006, 27, 225-239.	1.2	72
17	Effects of local skull inhomogeneities on EEG source estimation. Medical Engineering and Physics, 1999, 21, 143-154.	0.8	67
18	Gait and muscle activation changes in men with knee osteoarthritis. Knee, 2010, 17, 69-76.	0.8	62

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19	Subspace regularization method for the single-trial estimation of evoked potentials. IEEE Transactions on Biomedical Engineering, 1999, 46, 849-860.	2.5	59
20	Groupâ€level variations in motor representation areas of thenar and anterior tibial muscles: Navigated Transcranial Magnetic Stimulation Study. Human Brain Mapping, 2010, 31, 1272-1280.	1.9	54
21	Linear and nonlinear tremor acceleration characteristics in patients with Parkinson's disease. Physiological Measurement, 2012, 33, 395-412.	1.2	54
22	Analysis of surface EMG signal morphology in Parkinson's disease. Physiological Measurement, 2007, 28, 1507-1521.	1.2	52
23	EMG signal morphology and kinematic parameters in essential tremor and Parkinsonâ€™s disease patients. Journal of Electromyography and Kinesiology, 2014, 24, 300-306.	0.7	44
24	Analysis of EMG and Acceleration Signals for Quantifying the Effects of Deep Brain Stimulation in Parkinsonâ€™s Disease. IEEE Transactions on Biomedical Engineering, 2011, 58, 2545-2553.	2.5	43
25	Non-Linear EMG Parameters for Differential and Early Diagnostics of Parkinsonâ€™s Disease. Frontiers in Neurology, 2013, 4, 135.	1.1	41
26	State Estimation in Time-Varying Electrical Impedance Tomography. Annals of the New York Academy of Sciences, 1999, 873, 430-439.	1.8	40
27	Postural control and thigh muscle activity in men with knee osteoarthritis. Journal of Electromyography and Kinesiology, 2010, 20, 1066-1074.	0.7	40
28	How creditor rights affect the value of cash: A cross-country study. Journal of Corporate Finance, 2013, 22, 278-298.	2.7	40
29	Reproducibility of Loading Measurements With Skin-Mounted Accelerometers During Walking. Archives of Physical Medicine and Rehabilitation, 2007, 88, 907-915.	0.5	38
30	Asynchronicity of Facial Blood Perfusion in Migraine. PLoS ONE, 2013, 8, e80189.	1.1	37
31	Analysis of galvanic skin responses with principal components and clustering techniques. IEEE Transactions on Biomedical Engineering, 2001, 48, 1071-1079.	2.5	35
32	Relationship of P300 single-trial responses with reaction time and preceding stimulus sequence. International Journal of Psychophysiology, 2006, 61, 244-252.	0.5	35
33	Monitoring Functional Impairment and Recovery after Traumatic Brain Injury in Rats by fMRI. Journal of Neurotrauma, 2013, 30, 546-556.	1.7	35
34	Effects of electrode properties on EEG measurements and a related inverse problem. Medical Engineering and Physics, 2000, 22, 535-545.	0.8	34
35	Mouse ECG findings in aging, with conduction system affecting drugs and in cardiac pathologies: Development and validation of ECG analysis algorithm in mice. Physiological Reports, 2015, 3, e12639.	0.7	34
36	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-R37.	0.9	33

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37	Effects of nutritive and non-nutritive sucking on infant heart rate variability during the first 6 months of life. , 2007, 30, 546-556.		31
38	The effect of fMRI task combinations on determining the hemispheric dominance of language functions. Neuroradiology, 2012, 54, 393-405.	1.1	31
39	Estimation of event-related synchronization changes by a new TVAR method. IEEE Transactions on Biomedical Engineering, 1997, 44, 649-656.	2.5	30
40	Single-trial estimation of multichannel evoked-potential measurements. IEEE Transactions on Biomedical Engineering, 2003, 50, 189-196.	2.5	28
41	Analysis of Dynamic Voluntary Muscle Contractions in Parkinson's Disease. IEEE Transactions on Biomedical Engineering, 2009, 56, 2280-2288.	2.5	28
42	Kinematic and kinetic changes in obese gait in bariatric surgery-induced weight loss. Journal of Biomechanics, 2012, 45, 1769-1774.	0.9	27
43	Signal features of surface electromyography in advanced Parkinsonâ€™s disease during different settings of deep brain stimulation. Clinical Neurophysiology, 2015, 126, 2290-2298.	0.7	26
44	R&D investments: The effects of different financial environments on firm profitability. Journal of Multinational Financial Management, 2008, 18, 79-93.	1.0	25
45	Heart Rate Variability Dynamics During Low-Dose Propofol and Dexmedetomidine Anesthesia. Annals of Biomedical Engineering, 2012, 40, 1802-1813.	1.3	23
46	Simulation of nonstationary EEG. Biological Cybernetics, 1997, 76, 349-356.	0.6	21
47	Evaluation of the Effect of Bariatric Surgery-Induced Weight Loss on Knee Gait and Cartilage Degeneration. Journal of Biomechanical Engineering, 2018, 140, .	0.6	21
48	Levodopa-Induced Changes in Electromyographic Patterns in Patients with Advanced Parkinsonâ€™s Disease. Frontiers in Neurology, 2018, 9, 35.	1.1	21
49	Dynamic electrical impedance tomography - phantom studies. Inverse Problems in Science and Engineering, 2000, 8, 495-510.	0.5	20
50	Differences in Heart Rate Variability of Female Nurses between and within Normal and Extended Work Shifts. Industrial Health, 2013, 51, 154-164.	0.4	20
51	Dynamic estimation of cardiac repolarization characteristics during hypoglycemia in healthy and diabetic subjects. Physiological Measurement, 2011, 32, 649-660.	1.2	19
52	Electroencephalogram reactivity to verbal command after dexmedetomidine, propofol and sevoflurane-induced unresponsiveness. Anaesthesia, 2015, 70, 190-204.	1.8	19
53	An electrical impedance tomography measurement system for experimental use. Review of Scientific Instruments, 1996, 67, 3605-3609.	0.6	17
54	Heart rate variability derived from exercise ECG in the detection of coronary artery disease. Physiological Measurement, 2007, 28, 1189-1200.	1.2	16

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55	Non-invasive mapping of bilateral motor speech areas using navigated transcranial magnetic stimulation and functional magnetic resonance imaging. Journal of Neuroscience Methods, 2015, 248, 32-40.	1.3	16
56	High-resolution QRS fiducial point corrections in sparsely sampled ECG recordings. Physiological Measurement, 2005, 26, 743-751.	1.2	14
57	A Principal Component Regression Approach for Estimation of Ventricular Repolarization Characteristics. IEEE Transactions on Biomedical Engineering, 2010, 57, 1062-1069.	2.5	14
58	Force-velocity profiling in ice hockey skating: reliability and validity of a simple, low-cost field method. Sports Biomechanics, 2023, 22, 874-889.	0.8	14
59	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, 307-314.	0.5	13
60	Effects of Implementing an Ergonomic Work Schedule on Heart Rate Variability in Shiftâ€working Nurses. Journal of Occupational Health, 2013, 55, 225-233.	1.0	13
61	Lower impulsive loadings following intensive weight loss after bariatric surgery in level and stair walking: A preliminary study. Knee, 2014, 21, 534-540.	0.8	13
62	Principal Component Regression on Motor Evoked Potential in Single-Pulse Transcranial Magnetic Stimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 1521-1528.	2.7	13
63	An EMG-Assisted Muscle-Force Driven Finite Element Analysis Pipeline to Investigate Joint- and Tissue-Level Mechanical Responses in Functional Activities: Towards a Rapid Assessment Toolbox. IEEE Transactions on Biomedical Engineering, 2022, 69, 2860-2871.	2.5	13
64	A new computational approach for cortical imaging. IEEE Transactions on Medical Imaging, 2001, 20, 325-332.	5.4	12
65	Visual Processing of Coherent Rotation in the Central Visual Field: An fMRI Study. Perception, 2003, 32, 1247-1257.	0.5	12
66	Effects of mop handle height on shoulder muscle activity and perceived exertion during floor mopping using a figure eight method. Industrial Health, 2016, 54, 58-67.	0.4	12
67	Parameters of Surface Electromyogram Suggest That Dry Immersion Relieves Motor Symptoms in Patients With Parkinsonism. Frontiers in Neuroscience, 2018, 12, 667.	1.4	12
68	Hypoglycemia detection based on cardiac repolarization features. , 2011, 2011, 4697-700.		11
69	Nitroglycerinâ€induced changes in facial skin temperature: â€˜cold noseâ€™ as a predictor of headache?. Clinical Physiology and Functional Imaging, 2013, 33, 409-417.	0.5	11
70	Psychophysiological responses to positive and negative food and nonfood visual stimuli.. Journal of Neuroscience, Psychology, and Economics, 2016, 9, 78-88.	0.4	11
71	Time-varying spectrum estimation of heart rate variability signals with Kalman smoother algorithm. , 2009, 2009, 1-4.		9
72	Nonlinear State-Space Modeling of Human Motion Using 2-D Marker Observations. IEEE Transactions on Biomedical Engineering, 2014, 61, 2167-2178.	2.5	9

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73	The correlation of vectorcardiographic changes to blood lactate concentration during an exercise test. Biomedical Signal Processing and Control, 2013, 8, 491-499.	3.5	8
74	Time-varying reconstruction in single photon emission computed tomography. International Journal of Imaging Systems and Technology, 2004, 14, 186-197.	2.7	7
75	Analysis of heart rate variability dynamics during propofol and dexmedetomidine anesthesia. , 2010, 2010, 1634-7.		7
76	EMG signal morphology in essential tremor and Parkinson's disease. , 2013, 2013, 5765-8.		7
77	Dynamic tension EMG to characterize the effects of DBS treatment of advanced Parkinson's disease. , 2014, 2014, 3248-51.		7
78	Acral coldness in migraineurs. Autonomic Neuroscience: Basic and Clinical, 2014, 180, 70-73.	1.4	7
79	Heart rate variability evaluation of Emfit sleep mattress breathing categories in NREM sleep. Clinical Neurophysiology, 2015, 126, 967-974.	0.7	7
80	Autonomic responses to tooth clenching in migraineursâ€"augmented trigeminocardiac reflex?. Journal of Oral Rehabilitation, 2018, 45, 764-769.	1.3	7
81	Wearable monitoring of positive and negative myoclonus in progressive myoclonic epilepsy type 1. Clinical Neurophysiology, 2021, 132, 2464-2472.	0.7	7
82	A Subspace Method for Dynamical Estimation of Evoked Potentials. Computational Intelligence and Neuroscience, 2007, 2007, 1-11.	1.1	6
83	Spectral power and fractal dimension: Methodological comparison in a sample of normal sleepers and chronic insomniacs. Sleep and Biological Rhythms, 2007, 5, 239-250.	0.5	6
84	Effects of Mop Handle Height on Forearm Muscle Activity, Wrist and Upper Arm Posture and Movement During Floor Mopping. IISE Transactions on Occupational Ergonomics and Human Factors, 2018, 6, 84-97.	0.5	6
85	<title>Three-dimensional electrical impedance tomography using complete electrode model</title>. , 1997, 3171, 166.		5
86	Nonlinear parameters of surface EMG in schizophrenia patients depend on kind of antipsychotic therapy. Frontiers in Physiology, 2015, 6, 197.	1.3	5
87	Nutritive sucking induces age-specific EEG-changes in 0â€"24 week-old infants. , 2016, 45, 98-108.		5
88	Tooth Clenching Induces Abnormal Cerebrovascular Responses in Migraineurs. Frontiers in Neurology, 2018, 9, 1112.	1.1	5
89	Toward Tailored Rehabilitation by Implementation of a Novel Musculoskeletal Finite Element Analysis Pipeline. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 789-802.	2.7	5
90	Estimation of the dynamics of event-related desynchronisation changes in electroencephalograms. Medical and Biological Engineering and Computing, 1999, 37, 309-315.	1.6	4

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91	Loss of Time-Organized Sympathetic Skin Responses in Acute Psychosis. Journal of Nervous and Mental Disease, 2001, 189, 552-556.	0.5	4
92	Discrimination of EMG and acceleration measurements between patients with Parkinson's disease and healthy persons. , 2010, 2010, 4878-81.		4
93	Causal estimation of neural and overall baroreflex sensitivity in relation to carotid artery stiffness. Physiological Measurement, 2013, 34, 1633-1644.	1.2	4
94	‹title›Recursive estimation of fast-impedance changes in electrical impedance tomography and a related problem‹/title›. , 1997, 3171, 208.		3
95	Method for Testing Motion Analysis Laboratory Measurement Systems. Journal of Biomechanical Engineering, 2010, 132, 114501.	0.6	3
96	Autonomic nervous system response to L-dopa in patients with advanced Parkinson's disease. , 2015, 2015, 6162-5.		3
97	An Overview of Strategies for Reducing Upper Extremity Physical Exposure Associated With Floor Mopping: A Systematic Review. Human Factors, 2019, 61, 43-63.	2.1	3
98	A Perturbed Postural Balance Test Using an Instrumented Treadmill â€“ Precision and Accuracy of Belt Movement and Test-Retest Reliability of Balance Measures. Frontiers in Sports and Active Living, 2021, 3, 688993.	0.9	3
99	Autonomic responses to tooth clenching and handgrip test. Acta Odontologica Scandinavica, 2022, 80, 389-395.	0.9	3
100	Analysis of dynamic EMG and acceleration measurements in Parkinson's disease. , 2008, 2008, 5053-6.		2
101	Reduced cortical activation in inferior frontal junction in Unverrichtâ€“Lundborg disease (EPM1) â€“ A motor fMRI study. Epilepsy Research, 2015, 111, 78-84.	0.8	2
102	Forces required in repositioning a patient in bed using regular sheet and slide film. International Journal of Industrial Ergonomics, 2022, 90, 103302.	1.5	2
103	Perturbation expansions in polynomial root tracking. Signal Processing, 2000, 80, 515-523.	2.1	1
104	Optimization of illumination profiles in line-scan camera systems. Measurement Science and Technology, 2000, 11, 1301-1306.	1.4	1
105	Noise Sensitivity of a Principal Component Regression Based RT Interval Variability Estimation Method. , 2006, 2006, 3098-101.		1
106	Tracking single-trial evoked potential changes with Kalman filtering and smoothing. , 2008, 2008, 157-60.		1
107	Kalman smoother based time-varying spectrum estimation of EEG during single agent propofol anesthesia. , 2009, 2009, 5709-12.		1
108	EMG and acceleration signal analysis for quantifying the effects of medication in Parkinson's disease. , 2011, 2011, 7496-9.		1

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109	Cholesterol metabolism, endothelial dysfunction, and carotid artery stiffness in type 1 diabetesâ˜†. Artery Research, 2011, 5, 8.	0.3	1
110	Cerebral cortex and sub-cortex lateralization in cardiovascular regulation: Correlations of BOLD fMRI and heart rate variability. , 2012, 2012, 3412-5.		1
111	Surface EMG parameters in schizophrenia patients. , 2014, 2014, 3260-3.		1
112	The Impact of Obesity and Weight Loss on Gait in Adults. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2014, , 125-147.	0.7	1
113	Lumbopelvic movement control in contemporary dancers: A multiple case study. Translational Sports Medicine, 2019, 2, 214-220.	0.5	1
114	Nutritive sucking creates a neurophysiological bridge over the birth gap. Acta Paediatrica, International Journal of Paediatrics, 2020, 109, 233-235.	0.7	1
115	Baseline Removal from Near Infrared Spectroscopy Measurements for Lactate Concentration Estimation. IFMBE Proceedings, 2009, , 2042-2045.	0.2	1
116	Analysis of heart rate variability dynamics during propofol anesthesia. IFMBE Proceedings, 2009, , 868-871.	0.2	1
117	The Potential of Dance Art in Recovery From a Stroke: A Case Study. Nordic Journal of Dance, 2019, 10, 32-43.	0.2	1
118	Method for testing movement analysis laboratory measurement systems. Gait and Posture, 2006, 24, S106-S107.	0.6	0
119	Subspace Approaches for fMRI Time Series Estimation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5485-8.	0.5	0
120	A Principal Component Regression Approach for Estimating Ventricular Repolarization Duration Variability. Eurasip Journal on Advances in Signal Processing, 2007, 2007, .	1.0	0
121	Estimation of single-trial fMRI BOLD responses using combined EEG and fMRI measurements. , 2008, 2008, 299-302.		0
122	Estimation of arterial baroreflex sensitivity in relation to carotid artery stiffness. , 2012, 2012, 3408-11.		0
123	A transportable camera based motion analysis system with application to monitoring of rehabilitation of hand. IFMBE Proceedings, 2009, , 914-917.	0.2	0
124	Principal Component Approach for Mapping Functional Connectivity in Event-Related fMRI. IFMBE Proceedings, 2009, , 1029-1032.	0.2	0
125	Time-Varying Multivariate Correlation Analysis of EEG during Low Dose Propofol Anesthesia. IFMBE Proceedings, 2009, , 2028-2031.	0.2	0
126	Embodiment der Psyche des Neugeborenen. , 2013, , 113-128.		0

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127	Novel sEMG parameters for early diagnostics of neurological diseases and aging. Journal of Biomedical Technologies, 2014, , 2-9.	0.0	0
128	Changes in elbow flexion EMG morphology during adjustment of deep brain stimulator in advanced Parkinsonâ€™s disease. PLoS ONE, 2022, 17, e0266936.	1.1	0
129	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, , .	0.5	0