Pablo laguna

List of Publications by Citations

218 papers	6,262 citations	39 h-index	73 g-index
265 ext. papers	7,499 ext. citations	3.5 avg, IF	5.72 L-index

#	Paper	IF	Citations
218	A wavelet-based ECG delineator: evaluation on standard databases. *IEEE Transactions on Biomedical Engineering*, **2004**, 51, 570-81	5	909
217	Automatic detection of wave boundaries in multilead ECG signals: validation with the CSE database. *Journal of Biomedical Informatics*, **1994**, 27, 45-60		328
216	Photoplethysmography pulse rate variability as a surrogate measurement of heart rate variability during non-stationary conditions. *Physiological Measurement*, **2010**, 31, 1271-90	2.9	281
215	Power spectral density of unevenly sampled data by least-square analysis: performance and application to heart rate signals. *IEEE Transactions on Biomedical Engineering*, **1998**, 45, 698-715	5	182
214	Analysis of heart rate variability in the presence of ectopic beats using the heart timing signal. *IEEE Transactions on Biomedical Engineering*, **2003**, 50, 334-43	5	159
213	New algorithm for QT interval analysis in 24-hour Holter ECG: performance and applications. *Medical and Biological Engineering and Computing*, **1990**, 28, 67-73	3.1	159
212	Principal Component Analysis in ECG Signal Processing. *Eurasip Journal on Advances in Signal Processing*, **2007**, 2007, 1	1.9	150
211	Drowsiness detection using heart rate variability. *Medical and Biological Engineering and Computing*, **2016**, 54, 927-37	3.1	134
210	QT interval variability in body surface ECG: measurement, physiological basis, and clinical value: position statement and consensus guidance endorsed by the European Heart Rhythm Association jointly with the ESC Working Group on Cardiac Cellular Electrophysiology. *Europace*, **2016**, 18, 925-44	3.9	129
209	Improved heart rate variability signal analysis from the beat occurrence times according to the IPFM model. *IEEE Transactions on Biomedical Engineering*, **2000**, 47, 985-96	5	120
208	Adaptive filter for event-related bioelectric signals using an impulse correlated reference input: comparison with signal averaging techniques. *IEEE Transactions on Biomedical Engineering*, **1992**, 39, 1032-44	5	111
207	A robust method for ECG-based estimation of the respiratory frequency during stress testing. *IEEE Transactions on Biomedical Engineering*, **2006**, 53, 1273-85	5	108
206	Characterization of QT interval adaptation to RR interval changes and its use as a risk-stratifier of arrhythmic mortality in amiodarone-treated survivors of acute myocardial infarction. *IEEE Transactions on Biomedical Engineering*, **2004**, 51, 1511-20	5	103
205	Computational techniques for ECG analysis and interpretation in light of their contribution to medical advances. *Journal of the Royal Society Interface*, **2018**, 15,	4.1	92
204	Adaptive estimation of QRS complex wave features of ECG signal by the Hermite model. *Medical and Biological Engineering and Computing*, **1996**, 34, 58-68	3.1	88
203	Deriving respiration from photoplethysmographic pulse width. *Medical and Biological Engineering and Computing*, **2013**, 51, 233-42	3.1	87
202	Pulse rate variability analysis for discrimination of sleep-apnea-related decreases in the amplitude fluctuations of pulse photoplethysmographic signal in children. *IEEE Journal of Biomedical and Health Informatics*, **2014**, 18, 240-6	7.2	79

201	Characterization of dynamic interactions between cardiovascular signals by time-frequency coherence. *IEEE Transactions on Biomedical Engineering*, **2012**, 59, 663-73	5	78
200	Inclusion of Respiratory Frequency Information in Heart Rate Variability Analysis for Stress Assessment. *IEEE Journal of Biomedical and Health Informatics*, **2016**, 20, 1016-25	7.2	76
199	A method for continuously assessing the autonomic response to music-induced emotions through HRV analysis. *Medical and Biological Engineering and Computing*, **2010**, 48, 423-33	3.1	65
198	Characterization of repolarization alternans during ischemia: time-course and spatial analysis. *IEEE Transactions on Biomedical Engineering*, **2006**, 53, 701-11	5	65
197	Alignment methods for averaging of high-resolution cardiac signals: a comparative study of performance. *IEEE Transactions on Biomedical Engineering*, **1991**, 38, 571-9	5	65
196	Detection of decreases in the amplitude fluctuation of pulse photoplethysmography signal as indication of obstructive sleep apnea syndrome in children. *Biomedical Signal Processing and Control* , **2008**, 3, 267-277	4.9	63
195	The integral pulse frequency modulation model with time-varying threshold: application to heart rate variability analysis during exercise stress testing. *IEEE Transactions on Biomedical Engineering*, **2011**, 58, 642-52	5	59
194	Mechanisms of ventricular rate adaptation as a predictor of arrhythmic risk. *American Journal of Physiology - Heart and Circulatory Physiology*, **2010**, 298, H1577-87	5.2	57
193	PTT variability for discrimination of sleep apnea related decreases in the amplitude fluctuations of PPG signal in children. *IEEE Transactions on Biomedical Engineering*, **2010**, 57, 1079-88	5	56
192	QRS slopes for detection and characterization of myocardial ischemia. *IEEE Transactions on Biomedical Engineering*, **2008**, 55, 468-77	5	56
191	Automatic detection of ST-T complex changes on the ECG using filtered RMS difference series: application to ambulatory ischemia monitoring. *IEEE Transactions on Biomedical Engineering*, **2000**, 47, 1195-201	5	53
190	Multilead analysis of T-wave alternans in the ECG using principal component analysis. *IEEE Transactions on Biomedical Engineering*, **2009**, 56, 1880-90	5	51
189	Estimation of the QT/RR hysteresis lag. *Journal of Electrocardiology*, **2003**, 36 Suppl, 187-90	1.4	51
188	QT variability and HRV interactions in ECG: quantification and reliability. *IEEE Transactions on Biomedical Engineering*, **2006**, 53, 1317-29	5	50
187	Analysis of the ST-T complex of the electrocardiogram using the Karhunen--Lo□e transform: adaptive monitoring and alternans detection. *Medical and Biological Engineering and Computing*, **1999**, 37, 175-89	3.1	49
186	ECG Signal Processing **2005**, 453-566		48
185	Discrimination of sleep-apnea-related decreases in the amplitude fluctuations of PPG signal in children by HRV analysis. *IEEE Transactions on Biomedical Engineering*, **2009**, 56, 1005-14	5	43
184	Electrocardiogram (ECG) Signal Processing **2006**,		43

183	EEG Signal Processing **2005**, 55-179		41
182	Assessment of the dynamic interactions between heart rate and arterial pressure by the cross time-frequency analysis. *Physiological Measurement*, **2012**, 33, 315-31	2.9	40
181	Comparative study of local and Karhunen-Loève-based ST-T indexes in recordings from human subjects with induced myocardial ischemia. *Journal of Biomedical Informatics*, **1998**, 31, 271-92		40
180	Electrocardiogram derived respiratory rate from QRS slopes and R-wave angle. *Annals of Biomedical Engineering*, **2014**, 42, 2072-83	4.7	39
179	The Na+/K+ pump is an important modulator of refractoriness and rotor dynamics in human atrial tissue. *American Journal of Physiology - Heart and Circulatory Physiology*, **2012**, 302, H1146-59	5.2	39
178	A human ventricular cell model for investigation of cardiac arrhythmias under hyperkalaemic conditions. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2011**, 369, 4205-32	3	37
177	Vectorcardiographic loop alignment and the measurement of morphologic beat-to-beat variability in noisy signals. *IEEE Transactions on Biomedical Engineering*, **2000**, 47, 497-506	5	37
176	Distinct ECG Phenotypes Identified in Hypertrophic Cardiomyopathy Using Machine Learning Associate With Arrhythmic Risk Markers. *Frontiers in Physiology*, **2018**, 9, 213	4.6	36
175	Heart rate turbulence analysis based on photoplethysmography. *IEEE Transactions on Biomedical Engineering*, **2013**, 60, 3149-55	5	36
174	Analysis of heart rate variability during exercise stress testing using respiratory information. *Biomedical Signal Processing and Control*, **2010**, 5, 299-310	4.9	36
173	ECG-based detection of body position changes in ischemia monitoring. *IEEE Transactions on Biomedical Engineering*, **2003**, 50, 677-85	5	35
172	Quantification of restitution dispersion from the dynamic changes of the T-wave peak to end, measured at the surface ECG. *IEEE Transactions on Biomedical Engineering*, **2011**, 58, 1172-82	5	34
171	Automatic measurement of corrected QT interval in Holter recordings: comparison of its dynamic behavior in patients after myocardial infarction with and without life-threatening arrhythmias. *American Heart Journal*, **1997**, 134, 181-7	4.9	33
170	Depolarization changes during acute myocardial ischemia by evaluation of QRS slopes: standard lead and vectorial approach. *IEEE Transactions on Biomedical Engineering*, **2011**, 58, 110-20	5	31
169	Block adaptive filters with deterministic reference inputs for event-related signals: BLMS and BRLS. *IEEE Transactions on Signal Processing*, **2002**, 50, 1102-1112	4.8	31
168	Analysis of heart rate variability using time-varying frequency bands based on respiratory frequency. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2007**, 2007, 6675-8		30
167	Low-pass differentiators for biological signals with known spectra: application to ECG signal processing. *IEEE Transactions on Biomedical Engineering*, **1990**, 37, 420-5	5	30
166	Measuring acute stress response through physiological signals: towards a quantitative assessment of stress. *Medical and Biological Engineering and Computing*, **2019**, 57, 271-287	3.1	29

165	A Comparative Study of ECG-derived Respiration in Ambulatory Monitoring using the Single-lead ECG. *Scientific Reports*, **2020**, 10, 5704	4.9	28
164	Average T-wave alternans activity in ambulatory ECG records predicts sudden cardiac death in patients with chronic heart failure. *Heart Rhythm*, **2012**, 9, 383-9	6.7	28
163	An efficient method for handling ectopic beats using the heart timing signal. *IEEE Transactions on Biomedical Engineering*, **2006**, 53, 13-20	5	28
162	A multilead scheme based on periodic component analysis for T-wave alternans analysis in the ECG. *Annals of Biomedical Engineering*, **2010**, 38, 2532-41	4.7	27
161	Estimation of the respiratory frequency using spatial information in the VCG. *Medical Engineering and Physics*, **2003**, 25, 501-7	2.4	27
160	Sudden cardiac death and pump failure death prediction in chronic heart failure by combining ECG and clinical markers in an integrated risk model. *PLoS ONE*, **2017**, 12, e0186152	3.7	26
159	Human emotion recognition using heart rate variability analysis with spectral bands based on respiration. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2015**, 2015, 6134-7	0.9	26
158	Multilead ECG delineation using spatially projected leads from wavelet transform loops. *IEEE Transactions on Biomedical Engineering*, **2009**, 56, 1996-2005	5	26
157	Individual patterns of dynamic QT/RR relationship in survivors of acute myocardial infarction and their relationship to antiarrhythmic efficacy of amiodarone. *Journal of Cardiovascular Electrophysiology*, **2004**, 15, 1147-54	2.7	25
156	Techniques for Ventricular Repolarization Instability Assessment From the ECG. *Proceedings of the IEEE*, **2016**, 104, 392-415	14.3	24
155	Cardiac repolarization analysis using the surface electrocardiogram. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2009**, 367, 213-33	3	24
154	Steady-state MSE convergence of LMS adaptive filters with deterministic reference inputs with applications to biomedical signals. *IEEE Transactions on Signal Processing*, **2000**, 48, 2229-2241	4.8	24
153	Identification of the occluded artery in patients with myocardial ischemia induced by prolonged percutaneous transluminal coronary angioplasty using traditional vs transformed ECG-based indexes. *Journal of Biomedical Informatics*, **1999**, 32, 470-82		24
152	Transient and rapid QRS-widening associated with a J-wave pattern predicts impending ventricular fibrillation in experimental myocardial infarction. *Heart Rhythm*, **2014**, 11, 1195-201	6.7	23
151	Coronary artery disease diagnosis based on exercise electrocardiogram indexes from repolarisation, depolarisation and heart rate variability. *Medical and Biological Engineering and Computing*, **2003**, 41, 561-71	3.1	23
150	The adaptive linear combiner with a periodic-impulse reference input as a linear comb filter. *Signal Processing*, **1996**, 48, 193-203	4.4	23
149	Orthonormal (Fourier and Walsh) models of time-varying evoked potentials in neurological injury. *IEEE Transactions on Biomedical Engineering*, **1993**, 40, 213-21	5	23
148	Influence of running stride frequency in heart rate variability analysis during treadmill exercise testing. *IEEE Transactions on Biomedical Engineering*, **2013**, 60, 1796-805	5	22

147	Synthesis of HRV signals characterized by predetermined time-frequency structure by means of time-varying ARMA models. *Biomedical Signal Processing and Control*, **2012**, 7, 141-150	4.9	21
146	Sampling rate and the estimation of ensemble variability for repetitive signals. *Medical and Biological Engineering and Computing*, **2000**, 38, 540-6	3.1	21
145	Variability of Ventricular Repolarization Dispersion Quantified by Time-Warping the Morphology of the T-Waves. *IEEE Transactions on Biomedical Engineering*, **2017**, 64, 1619-1630	5	20
144	Automatic SVM classification of sudden cardiac death and pump failure death from autonomic and repolarization ECG markers. *Journal of Electrocardiology*, **2015**, 48, 551-7	1.4	20
143	Detection and quantification of acute myocardial ischemia by morphologic evaluation of QRS changes by an angle-based method. *Journal of Electrocardiology*, **2013**, 46, 204-14	1.4	20
142	T-Wave Morphology Restitution Predicts Sudden Cardiac Death in Patients With Chronic Heart Failure. *Journal of the American Heart Association*, **2017**, 6,	6	19
141	A multivariate time-frequency method to characterize the influence of respiration over heart period and arterial pressure. *Eurasip Journal on Advances in Signal Processing*, **2012**, 2012,	1.9	19
140	Remote processing server for ECG-based clinical diagnosis support. *IEEE Transactions on Information Technology in Biomedicine*, **2002**, 6, 277-84		19
139	Temporal evolution of traditional versus transformed ECG-based indexes in patients with induced myocardial ischemia. *Journal of Electrocardiology*, **2000**, 33, 37-47	1.4	19
138	Respiratory rate derived from smartphone-camera-acquired pulse photoplethysmographic signals. *Physiological Measurement*, **2015**, 36, 2317-33	2.9	18
137	Evaluation of depolarization changes during acute myocardial ischemia by analysis of QRS slopes. *Journal of Electrocardiology*, **2011**, 44, 416-24	1.4	18
136	Wearable Armband Device for Daily Life Electrocardiogram Monitoring. *IEEE Transactions on Biomedical Engineering*, **2020**, 67, 3464-3473	5	18
135	T-wave width as an index for quantification of ventricular repolarization dispersion: Evaluation in an isolated rabbit heart model. *Biomedical Signal Processing and Control*, **2008**, 3, 67-77	4.9	17
134	ECG signal compression plus noise filtering with truncated orthogonal expansions. *Signal Processing* , **1999**, 79, 97-115	4.4	17
133	A Time-Varying Nonparametric Methodology for Assessing Changes in QT Variability Unrelated to Heart Rate Variability. *IEEE Transactions on Biomedical Engineering*, **2018**, 65, 1443-1451	5	15
132	Methodological framework for estimating the correlation dimension in HRV signals. *Computational and Mathematical Methods in Medicine*, **2014**, 2014, 129248	2.8	15
131	Detection and Classification of Sleep Apnea and Hypopnea Using PPG and SpO Signals. *IEEE Transactions on Biomedical Engineering*, **2021**, 68, 1496-1506	5	15
130	Prediction of hypotension in hemodialysis patients. *Physiological Measurement*, **2014**, 35, 1885-98	2.9	14

129	Evaluation of ventricular repolarization dispersion during acute myocardial ischemia: spatial and temporal ECG indices. *Medical and Biological Engineering and Computing*, **2014**, 52, 375-91	3.1	13
128	Pulse Rate and Transit Time Analysis to Predict Hypotension Events After Spinal Anesthesia During Programmed Cesarean Labor. *Annals of Biomedical Engineering*, **2017**, 45, 2253-2263	4.7	13
127	Non-linear HRV indices under autonomic nervous system blockade. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2014**, 2014, 3252-5	0.9	13
126	Prognostic value of average T-wave alternans and QT variability for cardiac events in MADIT-II patients. *Journal of Electrocardiology*, **2013**, 46, 480-6	1.4	13
125	A dynamic model to characterize beat-to-beat adaptation of repolarization to heart rate changes. *Biomedical Signal Processing and Control*, **2008**, 3, 29-43	4.9	13
124	A wavelet-based electrogram onset delineator for automatic ventricular activation mapping. *IEEE Transactions on Biomedical Engineering*, **2014**, 61, 2830-9	5	12
123	Respiration effect on wavelet-based ECG T-wave end delineation strategies. *IEEE Transactions on Biomedical Engineering*, **2012**, 59, 1818-28	5	12
122	Time domain baroreflex sensitivity assessment by joint analysis of spontaneous SBP and RR series. *Biomedical Signal Processing and Control*, **2009**, 4, 254-261	4.9	12
121	Model-based detection of heart rate turbulence using mean shape information. *IEEE Transactions on Biomedical Engineering*, **2010**, 57, 334-42	5	12
120	Detection of body position changes using the surface electrocardiogram. *Medical and Biological Engineering and Computing*, **2003**, 41, 164-71	3.1	12
119	Methodological framework for heart rate variability analysis during exercise: application to running and cycling stress testing. *Medical and Biological Engineering and Computing*, **2018**, 56, 781-794	3.1	11
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117	A Multi-Variate Predictability Framework to Assess Invasive Cardiac Activity and Interactions During Atrial Fibrillation. *IEEE Transactions on Biomedical Engineering*, **2017**, 64, 1157-1168	5	11
116	A novel method to capture the onset of dynamic electrocardiographic ischemic changes and its implications to arrhythmia susceptibility. *Journal of the American Heart Association*, **2014**, 3, e001055	6	11
115	Selection of Nonstationary Dynamic Features for Obstructive Sleep Apnoea Detection in Children. *Eurasip Journal on Advances in Signal Processing*, **2011**, 2011,	1.9	11
114	Assessment of QT-measurement accuracy using the 12-lead electrocardiogram derived from EASI leads. *Journal of Electrocardiology*, **2007**, 40, 172-9	1.4	11
113	Karhunen-Lo□e transform as a tool to analyze the ST-segment. Comparison with QT interval. *Journal of Electrocardiology*, **1995**, 28 Suppl, 41-9	1.4	11
112	The STAFF III ECG database and its significance for methodological development and evaluation. *Journal of Electrocardiology*, **2014**, 47, 408-17	1.4	10

111	Influence of time-varying mean heart rate in coronary artery disease diagnostic performance of heart rate variability indices from exercise stress testing. *Journal of Electrocardiology*, **2011**, 44, 445-52	1.4	10
110	Detection performance and risk stratification using a model-based shape index characterizing heart rate turbulence. *Annals of Biomedical Engineering*, **2010**, 38, 3173-84	4.7	10
109	Discrimination between ischemic and artifactual ST segment events in Holter recordings. *Biomedical Signal Processing and Control*, **2010**, 5, 21-31	4.9	10
108	Model-based detection of heart rate turbulence. *IEEE Transactions on Biomedical Engineering*, **2008**, 55, 2712-22	5	10
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106	Machine learning enables noninvasive prediction of atrial fibrillation driver location and acute pulmonary vein ablation success using the 12-lead ECG. *Cardiovascular Digital Health Journal*, **2021**, 2, 126-136	2	9
105	Weightlessness and Cardiac Rhythm Disorders: Current Knowledge from Space Flight and Bed-Rest Studies. *Frontiers in Astronomy and Space Sciences*, **2016**, 3,	3.8	8
104	Ischemia detection from morphological QRS angle changes. *Physiological Measurement*, **2016**, 37, 1004-23	2.9	8
103	Time-varying spectral analysis for comparison of HRV and PPG variability during tilt table test. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 3579-82	0.9	8
102	Dynamic assessment of spontaneous baroreflex sensitivity by means of time-frequency analysis using either RR or pulse interval variability. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 1630-3	0.9	8
101	Impact of sampling rate reduction on automatic ECG delineation. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2007**, 2007, 2587-90		8
100	ECG-Derived Respiratory Rate in Atrial Fibrillation. *IEEE Transactions on Biomedical Engineering*, **2020**, 67, 905-914	5	8
99	Baroreflex Sensitivity Measured by Pulse Photoplethysmography. *Frontiers in Neuroscience*, **2019**, 13, 339	5.1	7
98	ECG-based estimation of dispersion of APD restitution as a tool to stratify sotalol-induced arrhythmic risk. *Journal of Electrocardiology*, **2015**, 48, 867-73	1.4	7
97	Mutual information between heart rate variability and respiration for emotion characterization. *Physiological Measurement*, **2019**, 40, 084001	2.9	7
96	Detection of body position changes from the ECG using a Laplacian noise model. *Biomedical Signal Processing and Control*, **2014**, 14, 189-196	4.9	7
95	Modeling and estimation of time-varying heart rate variability during stress test by parametric and non parametric analysis **2007**,		7
94	Evaluation of a root mean squared based ischemia detector on the long-term ST database with body position change cancellation **2005**,		7

93	Pulse photopletismography amplitude decrease detector for sleep apnea evaluation in children. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2005**, 2005, 2743-6		7
92	Photoplethysmographic Waveform Analysis for Autonomic Reactivity Assessment in Depression. *IEEE Transactions on Biomedical Engineering*, **2021**, 68, 1273-1281	5	7
91	Pilot Study on Electrocardiogram Derived Respiratory Rate Using a Wearable Armband **2018**,		7
90	ECG Beat Representation and Delineation by Means of Variable Projection. *IEEE Transactions on Biomedical Engineering*, **2021**, 68, 2997-3008	5	7
89	Assessment of respiratory flow cycle morphology in patients with chronic heart failure. *Medical and Biological Engineering and Computing*, **2017**, 55, 245-255	3.1	6
88	Heart morphology differences induced by intrauterine growth restriction and preterm birth measured on the ECG at preadolescent age. *Journal of Electrocardiology*, **2016**, 49, 401-9	1.4	6
87	Cardiovascular Predictive Value and Genetic Basis of Ventricular Repolarization Dynamics. *Circulation: Arrhythmia and Electrophysiology*, **2019**, 12, e007549	6.4	6
86	T wave alternans in experimental myocardial infarction: time course and predictive value for the assessment of myocardial damage. *Journal of Electrocardiology*, **2013**, 46, 263-9	1.4	6
85	. *IEEE Transactions on Signal Processing*, **1994**, 42, 3224-3229	4.8	6
84	Human Emotion Characterization by Heart Rate Variability Analysis Guided by Respiration. *IEEE Journal of Biomedical and Health Informatics*, **2019**, 23, 2446-2454	7.2	5
83	Post-Ventricular Premature Contraction Phase Correction Improves the Predictive Value of Average T-Wave Alternans in Ambulatory ECG Recordings. *IEEE Transactions on Biomedical Engineering*, **2018**, 65, 635-644	5	5
82	Assessment of Quadratic Nonlinear Cardiorespiratory Couplings During Tilt-Table Test by Means of Real Wavelet Biphase. *IEEE Transactions on Biomedical Engineering*, **2019**, 66, 187-198	5	5
81	Electrocardiogram derived respiration from QRS slopes. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 3913-6	0.9	5
80	ECG Signal Processing: Heart Rate Variability **2005**, 567-631		5
79	Model-based estimation of cardiovascular repolarization features: ischaemia detection and PTCA monitoring. *Journal of Medical Engineering and Technology*, **1998**, 22, 64-72	1.8	5
78	Feasibility of Long-Term Daily Life Electrocardiogram Monitoring Based on a Wearable Armband Device. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2019**, 2019, 4314-4317	0.9	5
77	Monitoring breathing rate by fusing the physiological impact of respiration on video-photoplethysmogram with head movements. *Physiological Measurement*, **2019**, 40, 094002	2.9	4
76	Smartphone-camera-acquired pulse photoplethysmographic signal for deriving respiratory rate **2014**,		4

75	2D ECG differences in frontal vs preferential planes inpatients referred for percutaneous transluminal coronary angioplasty. *Biomedical Signal Processing and Control*, **2014**, 11, 97-106	4.9	4
74	Impaired T-wave amplitude adaptation to heart-rate induced by cardiac deconditioning after 5-days of head-down bed-rest. *Acta Astronautica*, **2013**, 91, 166-172	2.9	4
73	Time-Frequency Analysis of Cardiovascular Signals and Their Dynamic Interactions **2017**, 257-287		4
72	Evaluation of T-wave alternans activity under stress conditions after 5 d and 21 d of sedentary head-down bed rest. *Physiological Measurement*, **2015**, 36, 2041-55	2.9	4
71	Real time QRS detection based on M-ary likelihood ratio test on the DFT coefficients. *PLoS ONE*, **2014**, 9, e110629	3.7	4
70	High-frequency signature of the QRS complex across ischemia quantified by QRS slopes **2005**,		4
69	Identification of patients prone to hypotension during hemodialysis based on the analysis of cardiovascular signals. *Medical Engineering and Physics*, **2015**, 37, 1156-61	2.4	3
68	Respiratory Rate Detection Using a Camera as Contactless Sensor **2017**,		3
67	Modeling and quantification of repolarization feature dependency on heart rate. *Methods of Information in Medicine*, **2014**, 53, 324-8	1.5	3
66	Assessing real-time RR-QT frequency-domain measures of coupling and causality through inhomogeneous point-process bivariate models. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference* **2014**, 2014, 6475-8	0.9	3
65	Respiration effect on single and multi lead ECG delineation strategies. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 3575-8	0.9	3
64	Accuracy of QT measurement in the EASI-derived 12-lead ECG. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, 2006, 3986-9		3
63	Obstructive sleep apnea syndrome analysis in children by decreases in the amplitude fluctuations of pulse photoplethysmography: role of recording duration and heart rate variability. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2007**, 2007, 6090-3		3
62	Performance evaluation of heart rate turbulence detection using an extended IPFM model **2007**,		3
61	Study of the relationship between pulse photoplethysmography amplitude decrease events and sleep apneas in children. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2006**, 2006, 3887-90		3
60	Amplitude variability extraction from multi-lead electrocardiograms for improvement of sleep apnea recognition **2005**,		3
59	Improved QT variability quantification by multilead automatic delineation **2005**,		3
58	Heart Rate Variability Analysis Guided by Respiration in Major Depressive Disorder		3

57	The STAFF III Database: ECGs Recorded During Acutely Induced Myocardial Ischemia		3
56	Electrocardiogram Derived Respiratory Rate Using a Wearable Armband. *IEEE Transactions on Biomedical Engineering*, **2021**, 68, 1056-1065	5	3
55	Monitoring blood potassium concentration in hemodialysis patients by quantifying T-wave morphology dynamics. *Scientific Reports*, **2021**, 11, 3883	4.9	3
54	Respiratory Rate Derived from Pulse Photoplethysmographic Signal by Pulse Decomposition Analysis. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2018**, 2018, 5282-5285	0.9	3
53	Assessment of ventricular repolarization instability in terms of T-wave alternans induced by head-down bed-rest immobilization. *Physiological Measurement*, **2019**, 40, 104001	2.9	2
52	A Two Step Gaussian Modelling to Assess PPG Morphological Variability Induced by Psychological Stress **2017**,		2
51	Eigenvalue-based time delay estimation of repetitive biomedical signals **2018**, 75, 107-119		2
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49	Signal Processing Guided by Physiology: Making the Most of Cardiorespiratory Signals [Life Sciences]. *IEEE Signal Processing Magazine*, **2013**, 30, 136-142	9.4	2
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47	Assessing instantaneous QT variability dynamics within a point-process nonlinear framework **2014**,		2
46	Characterization of ventricular depolarization and repolarization changes in a porcine model of myocardial infarction. *Physiological Measurement*, **2012**, 33, 1975-91	2.9	2
45	BioSigBrowser, biosignal processing interface **2009**,		2
44	ECG-based detection of body position changes using a Laplacian noise model. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2011**, 2011, 6931-4	0.9	2
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42	Evaluation of a Neyman-Pearson heart-rate turbulence detector. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2008**, 2008, 4407-10	0.9	2
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39	Advances in Electrocardiogram Signal Processing and Analysis. *Eurasip Journal on Advances in Signal Processing*, **2007**, 2007,	1.9	2
38	Evoked Potentials **2005**, 181-336		2
37	Difference in Pulse Arrival Time at Forehead and at Finger as a Surrogate of Pulse Transit Time		2
36	Mental Stress Detection Using Cardiorespiratory Wavelet Cross:Bispectrum		2
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