

# Juan Pablo Martínez Cortés

## List of Publications by Year in descending order

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Version: 2024-02-01

98  
papers

3,526  
citations

346980

22  
h-index

156644

58  
g-index

99  
all docs

99  
docs citations

99  
times ranked

3187  
citing authors

#	ARTICLE	IF	CITATIONS
1	Critical appraisal of technologies to assess electrical activity during atrial fibrillation: a position paper from the European Heart Rhythm Association and European Society of Cardiology Working Group on eCardiology in collaboration with the Heart Rhythm Society, Asia Pacific Heart Rhythm Society, Latin American Heart Rhythm Society and Computing in Cardiology. <i>Europace</i> , 2022, 24, 313-330.	0.7	33
2	Weighted Time Warping Improves T-Wave Morphology Markers Clinical Significance. <i>IEEE Transactions on Biomedical Engineering</i> , 2022, 69, 2787-2796.	2.5	2
3	Editorial: Atrial Fibrillation: Technology for Diagnosis, Monitoring, and Treatment. <i>Frontiers in Physiology</i> , 2022, 13, 848096.	1.3	1
4	Omnipolar EGM Voltage Mapping for Atrial Fibrosis Identification Evaluated with an Electrophysiological Model. , 2021, , .		0
5	Monitoring blood potassium concentration in hemodialysis patients by quantifying T-wave morphology dynamics. <i>Scientific Reports</i> , 2021, 11, 3883.	1.6	11
6	Nonlinear T-Wave Time Warping-Based Sensing Model for Non-Invasive Personalised Blood Potassium Monitoring in Hemodialysis Patients: A Pilot Study. <i>Sensors</i> , 2021, 21, 2710.	2.1	2
7	ECG-based monitoring of blood potassium concentration: Periodic versus principal component as lead transformation for biomarker robustness. <i>Biomedical Signal Processing and Control</i> , 2021, 68, 102719.	3.5	7
8	Characterization of Atrial Propagation Patterns and Fibrotic Substrate With a Modified Omnipolar Electrogram Strategy in Multi-Electrode Arrays. <i>Frontiers in Physiology</i> , 2021, 12, 674223.	1.3	5
9	Periodic repolarization dynamics as predictor of risk for sudden cardiac death in chronic heart failure patients. <i>Scientific Reports</i> , 2021, 11, 20546.	1.6	8
10	Mechanisms Underlying QT Interval Adaptation Behind Heart Rate During Stress Test. , 2021, , .		0
11	Weighted Time Warping T-Wave Analysis Robust to Delineation Errors: Clinical Implications. , 2021, , .		0
12	Eigenvector-based spatial ECG filtering improves QT delineation in stress test recordings. , 2021, , .		1
13	Characterization of impaired repolarization by quantification of the QT delay in response to heart rate changes from stress test recordings. , 2020, , .		0
14	Commentary: Increased Beat-to-Beat Variability of T-Wave Heterogeneity Measured From Standard 12-Lead Electrocardiogram Is Associated With Sudden Cardiac Death: A Case-Control Study. <i>Frontiers in Physiology</i> , 2020, 11, 598314.	1.3	0
15	Automatic Detection of Slow Conducting Channels during Substrate Ablation of Scar-Related Ventricular Arrhythmias. <i>Journal of Interventional Cardiology</i> , 2020, 2020, 1-13.	0.5	2
16	Quantification of Ventricular Repolarization Variation for Sudden Cardiac Death Risk Stratification in Atrial Fibrillation. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2019, 23, 1049-1057.	3.9	4
17	Assessment of automatic strategies for combining QRS detections by multiple algorithms in multiple leads. <i>Physiological Measurement</i> , 2019, 40, 114002.	1.2	3
18	Assessment of ventricular repolarization instability in terms of T-wave alternans induced by head-down bed-rest immobilization. <i>Physiological Measurement</i> , 2019, 40, 104001.	1.2	3

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19	Heart rate variability study in young subjects under stress conditions. , 2019, , .		0
20	Automatic diagnosis of strict left bundle branch block using a wavelet-based approach. PLoS ONE, 2019, 14, e0212971.	1.1	6
21	A Lead Selection Strategy based on an Estimated Detection Quality Index. , 2019, , .		0
22	Long-Term Microgravity Exposure Increases ECG Repolarization Instability Manifested by Low-Frequency Oscillations of T-Wave Vector. Frontiers in Physiology, 2019, 10, 1510.	1.3	8
23	Computational techniques for ECG analysis and interpretation in light of their contribution to medical advances. Journal of the Royal Society Interface, 2018, 15, 20170821.	1.5	143
24	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.	2.5	7
25	Automatic activation mapping and origin identification of idiopathic outflow tract ventricular arrhythmias. Journal of Electrocardiology, 2018, 51, 239-246.	0.4	1
26	Detection of ventricular premature beats based on the pressure signals of a hemodialysis machine. Medical Engineering and Physics, 2018, 51, 49-55.	0.8	6
27	T-Wave Morphology Restitution in Chronic Heart Failure Patients With Atrial Fibrillation. , 2018, , .		0
28	On the Influence of Heart Rate and Coupling Interval Prematurity on Heart Rate Turbulence. IEEE Transactions on Biomedical Engineering, 2017, 64, 302-309.	2.5	4
29	Tâ€Wave Morphology Restitution Predicts Sudden Cardiac Death in Patients With Chronic Heart Failure. Journal of the American Heart Association, 2017, 6, .	1.6	32
30	Measuring ventricular repolarisation dynamics from ambulatory electrocardiography as non-invasive cardiac risk indices. Revista Clinica Espanola, 2017, 217, 460-461.	0.2	0
31	Evaluation of respiratory- and postural-induced changes on the ballistocardiogram signal by time warping averaging. Physiological Measurement, 2017, 38, 1426-1440.	1.2	15
32	A Multi-Variate Predictability Framework to Assess Invasive Cardiac Activity and Interactions During Atrial Fibrillation. IEEE Transactions on Biomedical Engineering, 2017, 64, 1157-1168.	2.5	13
33	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.	1.1	38
34	QRS broadening due to terminal distortion is associated with the size of myocardial injury in experimental myocardial infarction. Journal of Electrocardiology, 2016, 49, 300-306.	0.4	4
35	Spatiotemporal model-based estimation of high-density atrial fibrillation activation maps. , 2016, 54, 64-74.		3
36	Ischemia detection from morphological QRS angle changes. Physiological Measurement, 2016, 37, 1004-1023.	1.2	12

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37	Techniques for Ventricular Repolarization Instability Assessment From the ECG. Proceedings of the IEEE, 2016, 104, 392-415.	16.4	36
38	Estimation of high-density activation maps during atrial fibrillation. , 2015, , .		0
39	Analysis of T-wave Alternans in ambulatory recordings using the ADTWA index. , 2015, 2015, 402-5.		0
40	Evaluation of T-wave alternans activity under stress conditions after 5â€œ%od and 21â€œ%od of sedentary head-down bed rest. Physiological Measurement, 2015, 36, 2041-2055.	1.2	6
41	Circadian modulation on T-wave alternans activity in chronic heart failure patients. , 2015, , .		0
42	Automatic SVM classification of sudden cardiac death and pump failure death from autonomic and repolarization ECG markers. Journal of Electrocardiology, 2015, 48, 551-557.	0.4	32
43	T-wave alternans and autonomic nervous system activity during orthostatic stress after 5 days of head-down bed-rest. , 2014, , .		0
44	Study of electrogram organization and synchronization in paroxysmal and persistent/permanent atrial fibrillation. , 2014, , .		0
45	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.	1.6	16
46	Evaluation of ventricular repolarization dispersion during acute myocardial ischemia: spatial and temporal ECG indices. Medical and Biological Engineering and Computing, 2014, 52, 375-391.	1.6	15
47	Prediction of hypotension in hemodialysis patients. Physiological Measurement, 2014, 35, 1885-1898.	1.2	21
48	Comparative Evaluation of Methodologies for T-Wave Alternans Mapping in Electrograms. IEEE Transactions on Biomedical Engineering, 2014, 61, 308-316.	2.5	32
49	A Wavelet-Based Electrogram Onset Delineator for Automatic Ventricular Activation Mapping. IEEE Transactions on Biomedical Engineering, 2014, 61, 2830-2839.	2.5	14
50	Transient and rapid QRS-widening associated with a J-wave pattern predicts impending ventricular fibrillation in experimental myocardial infarction. Heart Rhythm, 2014, 11, 1195-1201.	0.3	29
51	DYNAMIC QRS-WIDENING AND APPEARANCE OF EARLY REPOLARIZATION PATTERN PREDICT IMPENDING VENTRICULAR FIBRILLATION IN EXPERIMENTAL MYOCARDIAL INFARCTION. Journal of the American College of Cardiology, 2014, 63, A304.	1.2	0
52	Signal Processing Guided by Physiology: Making the Most of Cardiorespiratory Signals [Life Sciences]. IEEE Signal Processing Magazine, 2013, 30, 136-142.	4.6	2
53	T wave alternans in experimental myocardial infarction: Time course and predictive value for the assessment of myocardial damage. Journal of Electrocardiology, 2013, 46, 263-269.	0.4	10
54	Heart Rate Turbulence Analysis Based on Photoplethysmography. IEEE Transactions on Biomedical Engineering, 2013, 60, 3149-3155.	2.5	44

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55	Prognostic value of average T-wave alternans and QT variability for cardiac events in MADIT-II patients. <i>Journal of Electrocardiology</i> , 2013, 46, 480-486.	0.4	15
56	Cross-Database Evaluation of a Multilead Heartbeat Classifier. <i>IEEE Transactions on Information Technology in Biomedicine</i> , 2012, 16, 658-664.	3.6	13
57	Average T-wave alternans activity in ambulatory ECG records predicts sudden cardiac death in patients with chronic heart failure. <i>Heart Rhythm</i> , 2012, 9, 383-389.	0.3	38
58	Microvolt T-Wave Alternans Testing Has a Role in Arrhythmia Risk Stratification. <i>Journal of the American College of Cardiology</i> , 2012, 59, 1572-1573.	1.2	11
59	Letter to the Editorâ€Average T-wave alternans activity in ambulatory electrocardiogram records: Commentary on the relationship with T-wave amplitude and T-wave alternans regional. <i>Heart Rhythm</i> , 2012, 9, e6-e7.	0.3	0
60	Respiration Effect on Wavelet-Based ECG T-Wave End Delineation Strategies. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 1818-1828.	2.5	13
61	An Automatic Patient-Adapted ECG Heartbeat Classifier Allowing Expert Assistance. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 2312-2320.	2.5	97
62	Microvolt T-Wave Alternans. <i>Journal of the American College of Cardiology</i> , 2011, 58, 1309-1324.	1.2	371
63	Heartbeat Classification Using Feature Selection Driven by Database Generalization Criteria. <i>IEEE Transactions on Biomedical Engineering</i> , 2011, 58, 616-625.	2.5	313
64	Optimization of ECG Classification by Means of Feature Selection. <i>IEEE Transactions on Biomedical Engineering</i> , 2011, 58, 2168-2177.	2.5	249
65	A Multilead Scheme Based on Periodic Component Analysis for T-Wave Alternans Analysis in the ECG. <i>Annals of Biomedical Engineering</i> , 2010, 38, 2532-2541.	1.3	40
66	Detection Performance and Risk Stratification Using a Model-Based Shape Index Characterizing Heart Rate Turbulence. <i>Annals of Biomedical Engineering</i> , 2010, 38, 3173-3184.	1.3	11
67	Model-Based Detection of Heart Rate Turbulence Using Mean Shape Information. <i>IEEE Transactions on Biomedical Engineering</i> , 2010, 57, 334-342.	2.5	14
68	Evaluation of an ECG heartbeat classifier designed by generalization-driven feature selection. , 2010, 2010, 5399-402.		0
69	Respiration effect on single and multi lead ECG delineation strategies. , 2010, 2010, 3575-8.		4
70	Comparison of source separation techniques for multilead T-wave alternans detection in the ECG. , 2010, 2010, 5367-70.		0
71	New ways to revitalise minority languages: The repercussions of the internet in the case of Aragonese. <i>Digithum</i> , 2010, .	0.2	0
72	Multilead Analysis of T-Wave Alternans in the ECG Using Principal Component Analysis. <i>IEEE Transactions on Biomedical Engineering</i> , 2009, 56, 1880-1890.	2.5	65

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73	Multilead ECG Delineation Using Spatially Projected Leads From Wavelet Transform Loops. IEEE Transactions on Biomedical Engineering, 2009, 56, 1996-2005.	2.5	32
74	Cardiac repolarization analysis using the surface electrocardiogram. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 213-233.	1.6	28
75	Model-Based Detection of Heart Rate Turbulence. IEEE Transactions on Biomedical Engineering, 2008, 55, 2712-2722.	2.5	14
76	Evaluation of a Neyman-Pearson heart-rate turbulence detector. , 2008, 2008, 4407-10.		2
77	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.	0.5	10
78	Assessment of QT-measurement accuracy using the 12-lead electrocardiogram derived from EASI leads. Journal of Electrocardiology, 2007, 40, 172-179.	0.4	12
79	Characterization of Repolarization Alternans During Ischemia: Time-Course and Spatial Analysis. IEEE Transactions on Biomedical Engineering, 2006, 53, 701-711.	2.5	76
80	QT Variability and HRV Interactions in ECG: Quantification and Reliability. IEEE Transactions on Biomedical Engineering, 2006, 53, 1317-1329.	2.5	52
81	Accuracy of QT Measurement in the EASI-derived 12-lead ECG. , 2006, 2006, 3986-9.		3
82	Accuracy of QT Measurement in the EASI-derived 12-lead ECG. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
83	Methodological Principles of T Wave Alternans Analysis: A Unified Framework. IEEE Transactions on Biomedical Engineering, 2005, 52, 599-613.	2.5	172
84	A Wavelet-Based ECG Delineator: Evaluation on Standard Databases. IEEE Transactions on Biomedical Engineering, 2004, 51, 570-581.	2.5	1,216
85	Evaluation of Changes in T-wave Alternans Induced by 60 Days of Immobilization by Head-down Bed-rest. , 0, , .		1
86	Machine Learning to Find Areas of Rotors Sustaining Atrial Fibrillation From the ECG. , 0, , .		2
87	Potassium Monitoring from Multilead T-wave Morphology Changes during Hemodialysis: Periodic versus Principal Component Analysis. , 0, , .		2
88	Index of T:wave Variation as a Predictor of Sudden Cardiac Death in Chronic Heart Failure Patients with Atrial Fibrillation. , 0, , .		0
89	Postextrasystolic T Wave Change to Stratify Risk of Pump Failure Death in Patients with Chronic Heart Failure. , 0, , .		0
90	Respiratory Rate Estimation from Multilead ECG Delineation using VCG Directions on Fiducial Points. , 0, , .		0

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91	The STAFF III Database: ECGs Recorded During Acutely Induced Myocardial Ischemia. , 0, , .		6
92	Microgravity Exposure Alters Sympathetic Modulation of Ventricular Repolarization Quantified From the ECG via Periodic Repolarization Dynamics. , 0, , .		0
93	A Wavelet-Based Approach for Automatic Diagnosis of Strict Left Bundle Branch Block. , 0, , .		0
94	Sudden Cardiac Death Prediction in Chronic Heart Failure Patients by Periodic Repolarization Dynamics. , 0, , .		1
95	Unipolar Electrogram Eigenvalue Distribution Analysis for the Identification of Atrial Fibrosis. , 0, , .		2
96	De la prueba de esfuerzo a la predicción de muerte súbita cardíaca usando marcadores no invasivos. Jornadas De Jóvenes Investigadores Del I3A, 0, 8, .	0.0	0
97	Dinámica periódica de la repolarización como predictor de muerte súbita en pacientes con insuficiencia cardíaca crónica. Jornadas De Jóvenes Investigadores Del I3A, 0, 8, .	0.0	0
98	Characterization of Impaired Ventricular Repolarization by Quantification of QT Delayed Response to Heart Rate Changes in Stress Test. , 0, , .		8