Francisco Sales Castells RamÃ³n

List of Publications by Year
in descending order

87 papers	**1,617** citations	623734 **14** h-index	330143 **37** g-index
91 all docs	**91** docs citations	**91** times ranked	**1399** citing authors

#	Article	IF	Citations
1	An open access database for the evaluation of heart sound algorithms. Physiological Measurement, 2016, 37, 2181-2213.	2.1	473
2	Principal Component Analysis in ECG Signal Processing. Eurasip Journal on Advances in Signal Processing, 2007, 2007, 1.	1.7	224
3	Atrial Activity Extraction for Atrial Fibrillation Analysis Using Blind Source Separation. IEEE Transactions on Biomedical Engineering, 2004, 51, 1176-1186.	4.2	214
4	Spatiotemporal Blind Source Separation Approach to Atrial Activity Estimation in Atrial Tachyarrhythmias. IEEE Transactions on Biomedical Engineering, 2005, 52, 258-267.	4.2	128
5	Noninvasive Mapping of Human Atrial Fibrillation. Journal of Cardiovascular Electrophysiology, 2009, 20, 507-513.	1.7	59
6	Estimation of atrial fibrillatory wave from single-lead atrial fibrillation electrocardiograms using principal component analysis concepts. Medical and Biological Engineering and Computing, 2005, 43, 557-560.	2.8	57
7	Poincaré Surface Profiles of RR Intervals: A Novel Noninvasive Method for the Evaluation of Preferential AV Nodal Conduction During Atrial Fibrillation. IEEE Transactions on Biomedical Engineering, 2009, 56, 433-442.	4.2	34
8	Noninvasive Assessment of the Complexity and Stationarity of the Atrial Wavefront Patterns During Atrial Fibrillation. IEEE Transactions on Biomedical Engineering, 2010, 57, 2147-2157.	4.2	32
9	Packet wavelet decomposition: An approach for atrial activity extraction. , 0, , .		23
10	Atrial activity extraction from atrial fibrillation episodes based on maximum likelihood source separation. Signal Processing, 2005, 85, 523-535.	3.7	22
11	The role of independent component analysis in the signal processing of ECG recordings. Biomedizinische Technik, 2007, 52, 18-24.	0.8	20
12	How Many Leads Are Necessary for a Reliable Reconstruction of Surface Potentials During Atrial Fibrillation?. IEEE Transactions on Information Technology in Biomedicine, 2009, 13, 330-340.	3.2	19
13	Entropy measurements in paroxysmal and persistent atrial fibrillation. Physiological Measurement, 2010, 31, 1011-1020.	2.1	18
14	On the Preprocessing of Atrial Electrograms in Atrial Fibrillation: Understanding Botteron's Approach. PACE - Pacing and Clinical Electrophysiology, 2014, 37, 133-143.	1.2	18
15	Role of the Atrial Rate as a Factor Modulating Ventricular Response during Atrial Fibrillation. PACE - Pacing and Clinical Electrophysiology, 2010, 33, 1510-1517.	1.2	16
16	Atrial fibrillation, atrial gutter and normal sinus rhythm discrimination by means of blind source separation and spectral parameters extraction. , 0, , .		14
17	Anesthesia with propofol slows atrial fibrillation dominant frequencies. Computers in Biology and Medicine, 2008, 38, 792-798.	7.0	14
18	Atrial fibrillation organization: quantification of propofol effects. Medical and Biological Engineering and Computing, 2009, 47, 333-341.	2.8	13

#	ARTICLE	IF	CITATIONS
19	Atrial Fibrillation Detection Using Feedforward Neural Networks and Automatically Extracted Signal Features. , 0, , .		13
20	Atrial fibrillation analysis based on ICA including statistical and temporal source information. , 0, , .		10
21	Limitations of Dower's Inverse Transform for the Study of Atrial Loops during Atrial Fibrillation. PACE - Pacing and Clinical Electrophysiology, 2009, 32, 972-980.	1.2	10
22	Profound Sedation with Propofol Modifies Atrial Fibrillation Dynamics. PACE - Pacing and Clinical Electrophysiology, 2013, 36, 1176-1188.	1.2	10
23	Bioelectric model of atrial fibrillation: applicability of blind source separation techniques for atrial activity estimation in atrial fibrillation episodes. , 2003, , .		9
24	Prediction of spontaneous termination of atrial fibrillation using time frequency analysis of the atrial fibrillatory wave. , 0, , .		9
25	Spectral analysis-based risk score enables early prediction of mortality and cerebral performance in patients undergoing therapeutic hypothermia for ventricular fibrillation and comatose status. International Journal of Cardiology, 2015, 186, 250-258.	1.7	9
26	Entropy at the right atrium as a predictor of atrial fibrillation recurrence outcome after pulmonary vein ablation. Biomedizinische Technik, 2016, 61, 29-36.	0.8	9
27	An integral atrial wave identification based on spatiotemporal source separation: clinical validation. , 2003, , .		8
28	Mixing Matrix Pseudostationarity and ECG Preprocessing Impact on ICA-Based Atrial Fibrillation Analysis. Lecture Notes in Computer Science, 2004, , 1079-1086.	1.3	8
29	Refined Multiscale Fuzzy Entropy to Analyse Post-Exercise Cardiovascular Response in Older Adults With Orthostatic Intolerance. Entropy, 2018, 20, 860.	2.2	8
30	Granger Causality and Jensenâ€"Shannon Divergence to Determine Dominant Atrial Area in Atrial Fibrillation. Entropy, 2018, 20, 57.	2.2	8
31	Wavelet analysis of electrocardiograms to characterize recurrent atrial fibrillation. Journal of the Franklin Institute, 2007, 344, 196-211.	3.4	7
32	Evaluation of lead selection methods for optimal reconstruction of body surface potentials. Journal of Electrocardiology, 2008, 41, 26-34.	0.9	7
33	Left ventricular myocardial dysfunction in arrhythmogenic cardiomyopathy with left ventricular involvement: A door to improving diagnosis. International Journal of Cardiology, 2019, 274, 237-244.	1.7	7
34	Improving the diagnosis of bundle branch block by analysis of body surface potential maps. Journal of Electrocardiology, 2009, 42, 651-659.	0.9	6
35	Propofol Effects on Atrial Fibrillation Wavefront Delays. IEEE Transactions on Biomedical Engineering, 2010, 57, 1877-1885.	4.2	6
36	Wavelet blind separation: a new methodology for the analysis of atrial fibrillation from holter recordings. , 0, , .		5

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37	Multidimensional ICA for the Separation of Atrial and Ventricular Activities from Single Lead ECGs in Paroxysmal Atrial Fibrillation Episodes. Lecture Notes in Computer Science, 2004, , 1229-1236.	1.3	5
38	Surface-ECG atrial activity extraction via blind source separation: spectral validation. , 0, , .		4
39	Atrial activity extraction in Holter registers using adaptive wavelet analysis. , 2003, , .		4
40	Convolutive Acoustic Mixtures Approximation to an Instantaneous Model Using a Stereo Boundary Microphone Configuration. Lecture Notes in Computer Science, 2004, , 816-823.	1.3	4
41	Surcando el espacio-ƙpara mejorar la imagen por resonancia magnética. Radiologia, 2004, 46, 133-150.	0.5	4
42	Quantification of anaesthetic effects on atrial fibrillation rate by partial least-squares. Physiological Measurement, 2012, 33, 1757-1768.	2.1	4
43	Estimation of PQ distance dispersion for atrial fibrillation detection. Computer Methods and Programs in Biomedicine, 2021, 208, 106167.	4.7	4
44	From 12 to 1 ECG lead: multiple cardiac condition detection mixing a hybrid machine learning approach with a one-versus-rest classification strategy. Physiological Measurement, 2022, 43, 064003.	2.1	4
45	Implantable cardioverter defibrillator algorithms: status review in terms of computational cost. Biomedizinische Technik, 2007, 52, 25-30.	0.8	3
46	The Effectiveness of Alert Sounds for Electric Vehicles Based on Pedestrians’ Perception. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 2956-2965.	8.0	3
47	Non-invasive characterisation of macroreentrant atrial tachycardia types from a vectorcardiographic approach with the slow conduction region as a cornerstone. Computer Methods and Programs in Biomedicine, 2021, 200, 105932.	4.7	3
48	Entropy Analysis of Atrial Activity Morphology to Study Atrial Fibrillation Recurrences after Ablation Procedure. Lecture Notes in Computer Science, 2015, , 146-154.	1.3	3
49	Wavelet Domain Blind Signal Separation to Analyze Supraventricular Arrhythmias from Holter Registers. Lecture Notes in Computer Science, 2004, , 1111-1117.	1.3	2
50	Optimization of three morphologic algorithms for arrhythmia discrimination in implantable cardioverter defibrillators. , 2005, , .		2
51	Morphological descriptors based on Eigen value decomposition for P-wave analysis. , 2008, , .		2
52	Ventricular rhythm in atrial fibrillation under anaesthetic infusion with propofol. Physiological Measurement, 2009, 30, 833-845.	2.1	2
53	Characterization of typical and atypical atrial flutter loops from the vectorcardiogram. , 2011, 2011, 4976-9.		2
54	Estimation of atrial fibrillatory waves from one-lead ECGs using principal component analysis concepts. , 0, , .		1

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55	Systematic evaluation of time-frequency parameters from surface electrocardiograms for monitoring amiodarone effects in atrial fibrillation. , 2005, , .		1
56	Diagnosis of Bundle Branch Block by analyzing body surface potential maps. , 2008, , .		1
57	Wavelet variance differences in atrial fibrillation during anaesthetic effect. , 2008, , .		1
58	Teager energy based approach to detect atrial peaks to predict atrial fibrillation recurrence. , 2015, , .		1
59	Classification model based on strain measurements to identify patients with arrhythmogenic cardiomyopathy with left ventricular involvement. Computer Methods and Programs in Biomedicine, 2020, 188, 105296.	4.7	1
60	Pulmonary Vein Activity Organization to Determine Atrial Fibrillation Recurrence: Preliminary Data from a Pilot Study. Mathematics, 2020, 8, 1813.	2.2	1
61	Study of New Criteria Based on Eigenvalue Decomposition to Assist Arrhythmogenic Cardiomyopathy Diagnosis. , 0, , .		1
62	Multiscale Principal Component Analysis to Predict Atrial Fibrillation Reversion to Sinus Rhythm. , 0, , .		1
63	Data and signals for the assessment of the cardiovascular system. , 2022, , 11-50.		1
64	A New Auditory-Based Index to Evaluate the Blind Separation Performance of Acoustic Mixtures. Lecture Notes in Computer Science, 2004, , 1118-1125.	1.3	0
65	Preservation of spatial transfer coefficients in surface ECG atrial fibrillation analysis. , 0, , .		0
66	Characterization of atrial tachyarrhythmias by means of time frequency analysis. , 0, , .		0
67	Closed-form expression for the BER of m-QAM-OFDM systems over time- and frequency-selective wireless channels. International Journal of Communication Systems, 2006, 19, 861-876.	2.5	0
68	Analysis of inter-atrium differences in paroxysmal and persistent atrial fibrillation using principal component analysis. , 2007, , .		0
69	Performance evaluation in the reconstruction of body surface potentials from reduced lead systems a comparative study of lead selection algorithms. , 2007, , .		0
70	Evaluation of Propofol Effects in Atrial Fibrillation Using Principal and Independent Component Analysis. , 2007, , 569-576.		0
71	Poincaré surface profile. Novel non-invasive method to detect preferential ventricular response during atrial fibrillation. , 2007, , .		0
72	Role of the atrial rate in the ventricular response during atrial fibrillation. , 2008, , .		0

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73	Principal components analysis for quantifying the anaesthetic effects on atrial fibrillation organization. , 2009, , .		0
74	Principal component analysis for measuring the variation atrial fibrillation morphology during propofol effects. , 2009, , .		0
75	Morphology quantification of atrial fibrillation under propofol using principal components analysis. , 2011, 2011, 6967-70.		0
76	Topographic imaging of the atrial electrical activity during atrial fibrillation for the analysis of uniform distributions of the surface electrical potentials. , 2011, 2011, 2586-9.		0
77	Anaesthetics effects on cardiovascular response in atrial fibrillation patients with different ages. International Journal of Psychophysiology, 2016, 108, 123.	1.0	0
78	Bayesian Classification Applied to Strain in Arrhythmogenic Left-Ventricle Cardiomyopathy. , 2017, , .		0
79	Dyssynchrony Assessment in Arrhythmogenic Cardiomyopathy With Left Ventricular Involvement. , 0, , .		0
80	Exploiting Spatiotemporal Information for Blind Atrial Activity Extraction in Atrial Arrhythmias. Lecture Notes in Computer Science, 2004, , 18-25.	1.3	0
81	Is the Ventricular Response during Atrial Fibrillation Certainly Random?. IFMBE Proceedings, 2009, , 1362-1365.	0.3	0
82	Can orthogonal leads be derived from the standard electrocardiogram during atrial fibrillation?. IFMBE Proceedings, 2009, , 1192-1195.	0.3	0
83	Anaesthesia with Propofol Reduces Ventricular Rhythm Variability during Atrial Fibrillation. IFMBE Proceedings, 2009, , 1370-1373.	0.3	0
84	Non Invasive Mapping of Human Atrial Fibrillation. IFMBE Proceedings, 2009, , 575-578.	0.3	0
85	Singular Spectrum Analysis of Atrial Activations to Predict Atrial Fibrillation Recurrence After Ablation Procedure. , 0, , .		0
86	Prediction of Atrial Fibrillation Recurrence by Pulmonary Vein Electrogram Correlation. , 0, , .		0
87	Spatio Temporal Filtering of Multi-lead ECG Signals for Atrial Arrhythmia Classification. , 2021, , .		0