

# Raul Alcaraz

## List of Publications by Year in descending order

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167  
papers

2,392  
citations

218381

26  
h-index

253896

43  
g-index

172  
all docs

172  
docs citations

172  
times ranked

1776  
citing authors

#	ARTICLE	IF	CITATIONS
1	Application of Dispersion Entropy for the Detection of Emotions With Electroencephalographic Signals. IEEE Transactions on Cognitive and Developmental Systems, 2022, 14, 1179-1187.	2.6	6
2	The Dissimilar Impact in Atrial Substrate Modification of Left and Right Pulmonary Veins Isolation after Catheter Ablation of Paroxysmal Atrial Fibrillation. Journal of Personalized Medicine, 2022, 12, 462.	1.1	2
3	Splitting the P-Wave: Improved Evaluation of Left Atrial Substrate Modification after Pulmonary Vein Isolation of Paroxysmal Atrial Fibrillation. Sensors, 2022, 22, 290.	2.1	2
4	The Relevance of Calibration in Machine Learning-Based Hypertension Risk Assessment Combining Photoplethysmography and Electrocardiography. Biosensors, 2022, 12, 289.	2.3	8
5	The Relevance of Heart Rate Fluctuation When Evaluating Atrial Substrate Electrical Features in Catheter Ablation of Paroxysmal Atrial Fibrillation. Journal of Cardiovascular Development and Disease, 2022, 9, 176.	0.8	0
6	An Efficient Hybrid Methodology for Local Activation Waves Detection under Complex Fractionated Atrial Electrograms of Atrial Fibrillation. Sensors, 2022, 22, 5345.	2.1	2
7	A Review on Nonlinear Methods Using Electroencephalographic Recordings for Emotion Recognition. IEEE Transactions on Affective Computing, 2021, 12, 801-820.	5.7	69
8	Antiretroviral therapy of HIV infection using a novel optimal type-2 fuzzy control strategy. AEJ - Alexandria Engineering Journal, 2021, 60, 1545-1555.	3.4	33
9	Discrete-time macroeconomic system: Bifurcation analysis and synchronization using fuzzy-based activation feedback control. Chaos, Solitons and Fractals, 2021, 142, 110378.	2.5	42
10	Detection of Emotions from Electroencephalographic Recordings by Means of a Nonlinear Functional Connectivity Measure. Lecture Notes in Computer Science, 2021, , 242-252.	1.0	0
11	Spectral Entropy Analysis and Synchronization of a Multi-Stable Fractional-Order Chaotic System using a Novel Neural Network-Based Chattering-Free Sliding Mode Technique. Chaos, Solitons and Fractals, 2021, 144, 110576.	2.5	88
12	Detection of Negative Stress through Spectral Features of Electroencephalographic Recordings and a Convolutional Neural Network. Sensors, 2021, 21, 3050.	2.1	8
13	Assessment of dispersion patterns for negative stress detection from electroencephalographic signals. Pattern Recognition, 2021, 119, 108094.	5.1	10
14	Cross-sample entropy for the study of coordinated brain activity in calm and distress conditions with electroencephalographic recordings. Neural Computing and Applications, 2021, 33, 9343-9352.	3.2	6
15	Early Prediction of Students at Risk of Failing a Face-to-Face Course in Power Electronic Systems. IEEE Transactions on Learning Technologies, 2021, 14, 590-603.	2.2	5
16	Improved Discrimination Between Healthy and Hypertensive Individuals Combining Photoplethysmography and Electrocardiography. , 2021, , .		1
17	Linear and Nonlinear Correlations Between Surface and Invasive Atrial Activation Features in Catheter Ablation of Paroxysmal Atrial Fibrillation. , 2021, , .		0
18	ECG Quality Assessment via Deep Learning and Data Augmentation. , 2021, , .		3

#	ARTICLE	IF	CITATIONS
19	Parallel Study on Surface and Invasive Recordings Across Catheter Ablation Steps of Paroxysmal Atrial Fibrillation. , 2021, , .		0
20	Alternative Time-Domain P-wave Analysis for Precise Information on Substrate Alteration After Pulmonary Vein Isolation for Atrial Fibrillation. , 2021, , .		0
21	Novel Photoplethysmographic and Electrocardiographic Features for Enhanced Detection of Hypertensive Individuals. , 2021, , .		2
22	Are Coronary Sinus Features Reflecting the Effect of Catheter Ablation of Atrial Fibrillation as P-waves Do?. , 2021, , .		0
23	Nonlinear predictability analysis of brain dynamics for automatic recognition of negative stress. Neural Computing and Applications, 2020, 32, 13221-13231.	3.2	15
24	Multi-scale Entropy Evaluates the Proarrhythmic Condition of Persistent Atrial Fibrillation Patients Predicting Early Failure of Electrical Cardioversion. Entropy, 2020, 22, 748.	1.1	1
25	Optimal Control of Time-Delay Fractional Equations via a Joint Application of Radial Basis Functions and Collocation Method. Entropy, 2020, 22, 1213.	1.1	54
26	Study on How Catheter Ablation Affects Atrial Structures in Patients with Paroxysmal Atrial Fibrillation: The Case of the Coronary Sinus. , 2020, , .		6
27	Synchronization of a Non-Equilibrium Four-Dimensional Chaotic System Using a Disturbance-Observer-Based Adaptive Terminal Sliding Mode Control Method. Entropy, 2020, 22, 271.	1.1	35
28	Short-Time Estimation of Fractionation in Atrial Fibrillation with Coarse-Grained Correlation Dimension for Mapping the Atrial Substrate. Entropy, 2020, 22, 232.	1.1	5
29	A Deep Learning Approach for Featureless Robust Quality Assessment of Intermittent Atrial Fibrillation Recordings from Portable and Wearable Devices. Entropy, 2020, 22, 733.	1.1	20
30	Blending Inverted Lectures and Laboratory Experiments to Improve Learning in an Introductory Course in Digital Systems. IEEE Transactions on Education, 2020, 63, 144-154.	2.0	7
31	A Multistable Chaotic Jerk System with Coexisting and Hidden Attractors: Dynamical and Complexity Analysis, FPGA-Based Realization, and Chaos Stabilization Using a Robust Controller. Symmetry, 2020, 12, 569.	1.1	29
32	Assessing the Stability of Complex Fractionated Atrial Electrograms for the Characterization of Atrial Substrate in Atrial Fibrillation. , 2020, , .		0
33	Reliable Paroxysmal Atrial Fibrillation Substrate Assessment During Sinus Rhythm Through Optimal Estimation of Local Activation Waves Dynamics. , 2020, , .		0
34	Time Variability of P-wave Features from the Preoperative Electrocardiogram Predicts Recurrence After Catheter Cryoablation of Atrial Fibrillation. , 2020, , .		0
35	Atrial Fibrillation Surgical Ablation Long-term Outcome Prediction Just with One Lead of the Preoperative Surface Electrocardiogram. , 2020, , .		0
36	Multidimensional Fibrillatory Waves Analysis for Improved Electrical Cardioversion Outcome Prediction in Persistent Atrial Fibrillation. , 2020, , .		0

#	ARTICLE	IF	CITATIONS
37	Prediction of Early Failure in Electrical Cardioversion of Atrial Fibrillation Using Refined Multiscale Entropy. , 2020, , .		0
38	An Experimental Review on Obstructive Sleep Apnea Detection Based on Heart Rate Variability and Machine Learning Techniques. , 2020, , .		4
39	A Straightforward Methodology to Distinguish Complex Fractionated Atrial Electrograms of Paroxysmal from Persistent Atrial Fibrillation. , 2020, , .		0
40	Deep Learning Detection of Corrupted Segments in Recordings from Wearable Devices to Improve Atrial Fibrillation Screening. , 2020, , .		0
41	Comparison of Pre-Trained Deep Learning Algorithms for Quality Assessment of Electrocardiographic Recordings. , 2020, , .		3
42	Refined Electrical Cardioversion Outcome Prediction with Bipolar Surface Standard Leads for Patients in Persistent Atrial Fibrillation. , 2020, , .		0
43	Novel Time-Frequency Features of the Fibrillatory Waves Improve Catheter Ablation Outcome Prediction of Persistent Atrial Fibrillation. , 2020, , .		0
44	Multiscale Entropy Analysis for Recognition of Visually Elicited Negative Stress From EEG Recordings. International Journal of Neural Systems, 2019, 29, 1850038.	3.2	43
45	The stationary wavelet transform as an efficient reductor of powerline interference for atrial bipolar electrograms in cardiac electrophysiology. Physiological Measurement, 2019, 40, 075003.	1.2	14
46	Reference database and performance evaluation of methods for extraction of atrial fibrillatory waves in the ECG. Physiological Measurement, 2019, 40, 075011.	1.2	4
47	Multi-Lag Analysis of Symbolic Entropies on EEG Recordings for Distress Recognition. Frontiers in Neuroinformatics, 2019, 13, 40.	1.3	21
48	A financial hyperchaotic system with coexisting attractors: Dynamic investigation, entropy analysis, control and synchronization. Chaos, Solitons and Fractals, 2019, 126, 66-77.	2.5	124
49	Signal Analysis in Atrial Fibrillation. Series in Bioengineering, 2019, , 331-350.	0.3	2
50	Entropy Analysis and Neural Network-Based Adaptive Control of a Non-Equilibrium Four-Dimensional Chaotic System with Hidden Attractors. Entropy, 2019, 21, 156.	1.1	83
51	Assisting Electrophysiological Substrate Quantification in Atrial Fibrillation Ablation. , 2019, , .		0
52	Detection of Dominant Reentries in Multichannel Electrograms of Atrial Fibrillation. , 2019, , .		0
53	Thorough Assessment of a P-wave Delineation Algorithm Through the Use of Diverse Electrocardiographic Databases. , 2019, , .		2
54	Multilag Extension of Quadratic Sample Entropy for Distress Recognition with EEG Recordings. Advances in Intelligent Systems and Computing, 2019, , 274-281.	0.5	0

#	ARTICLE	IF	CITATIONS
55	Application of Joint Notch Filtering and Wavelet Transform for Enhanced Powerline Interference Removal in Atrial Fibrillation Electrograms. , 2018, , .		0
56	Symbolic Entropy Analysis and Its Applications. Entropy, 2018, 20, 568.	1.1	7
57	Fuzzy and Sample Entropies as Predictors of Patient Survival Using Short Ventricular Fibrillation Recordings during out of Hospital Cardiac Arrest. Entropy, 2018, 20, 591.	1.1	16
58	A novel wavelet-based filtering strategy to remove powerline interference from electrocardiograms with atrial fibrillation. Physiological Measurement, 2018, 39, 115006.	1.2	28
59	Characterization of f Waves. Series in Bioengineering, 2018, , 221-279.	0.3	5
60	Waveform Integrity in Atrial Fibrillation: The Forgotten Issue of Cardiac Electrophysiology. Annals of Biomedical Engineering, 2017, 45, 1890-1907.	1.3	13
61	Nonlinear Methodologies Applied to Automatic Recognition of Emotions: An EEG Review. Lecture Notes in Computer Science, 2017, , 754-765.	1.0	9
62	Applications of Nonlinear Methods to Atrial Fibrillation. , 2017, , 387-426.		2
63	Electrocardiographic P-wave Delineation Based on Adaptive Slope Gaussian Detection. , 2017, , .		8
64	Combined Nonlinear Analysis of Atrial and Ventricular Series for Automated Screening of Atrial Fibrillation. Complexity, 2017, 2017, 1-13.	0.9	8
65	Symbolic Analysis of Brain Dynamics Detects Negative Stress. Entropy, 2017, 19, 196.	1.1	39
66	Atrial Fibrillation Screening through Combined Timing Features of Short Single-Lead Electrocardiograms. , 2017, , .		4
67	Conditional Entropy Estimates for Distress Detection with EEG Signals. Lecture Notes in Computer Science, 2017, , 193-202.	1.0	7
68	Nonlinear Symbolic Assessment of Electroencephalographic Recordings for Negative Stress Recognition. Lecture Notes in Computer Science, 2017, , 203-212.	1.0	3
69	Recent Advances and Challenges in Nonlinear Characterization of Brain Dynamics for Automatic Recognition of Emotional States. Lecture Notes in Computer Science, 2017, , 213-222.	1.0	3
70	Study of Electroencephalographic Signal Regularity for Automatic Emotion Recognition. Lecture Notes in Computer Science, 2017, , 766-777.	1.0	7
71	Application of Entropy-Based Metrics to Identify Emotional Distress from Electroencephalographic Recordings. Entropy, 2016, 18, 221.	1.1	56
72	Application of Entropy-Based Features to Predict Defibrillation Outcome in Cardiac Arrest. Entropy, 2016, 18, 313.	1.1	32

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73	Non-linear EEG Modelling by Using Quadratic Entropy for Arousal Level Classification. Smart Innovation, Systems and Technologies, 2016, , 3-13.	0.5	2
74	EEG Mapping for Arousal Level Quantification Using Dynamic Quadratic Entropy. Advances in Intelligent Systems and Computing, 2016, , 207-214.	0.5	2
75	Application of the relative wavelet energy to heart rate independent detection of atrial fibrillation. Computer Methods and Programs in Biomedicine, 2016, 131, 157-168.	2.6	78
76	Electrocardiographic Spectral Features for Long-Term Outcome Prognosis of Atrial Fibrillation Catheter Ablation. Annals of Biomedical Engineering, 2016, 44, 3307-3318.	1.3	23
77	The P Wave Time-Frequency Variability Reflects Atrial Conduction Defects before Paroxysmal Atrial Fibrillation. Annals of Noninvasive Electrocardiology, 2015, 20, 433-445.	0.5	7
78	Wavelet Entropy Automatically Detects Episodes of Atrial Fibrillation from Single-Lead Electrocardiograms. Entropy, 2015, 17, 6179-6199.	1.1	52
79	Alteration of the P-wave non-linear dynamics near the onset of paroxysmal atrial fibrillation. Medical Engineering and Physics, 2015, 37, 692-697.	0.8	13
80	Study on the trustability of phase mapping methods to represent atrial potentials in atrial fibrillation. , 2015, , .		1
81	The lagged central tendency measure applied to assess P-wave duration variability improves paroxysmal atrial fibrillation onset prediction. , 2015, , .		0
82	Surface ECG spectral analysis to predict atrial fibrillation catheter ablation long-term outcome. , 2015, , .		0
83	Gaussian modeling of the P-wave morphology time course applied to anticipate paroxysmal atrial fibrillation. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 1775-1784.	0.9	9
84	Role of the P-wave high frequency energy and duration as noninvasive cardiovascular predictors of paroxysmal atrial fibrillation. Computer Methods and Programs in Biomedicine, 2015, 119, 110-119.	2.6	14
85	Application of Hurst exponents to assess atrial reverse remodeling in paroxysmal atrial fibrillation. Physiological Measurement, 2015, 36, 2231-2246.	1.2	6
86	Preoperative study of the surface ECG for the prognosis of atrial fibrillation maze surgery outcome at discharge. Physiological Measurement, 2014, 35, 1409-1423.	1.2	5
87	Morphological variability of the P-wave for premature envision of paroxysmal atrial fibrillation events. Physiological Measurement, 2014, 35, 1-14.	1.2	42
88	Comparative assessment of nonlinear metrics to quantify organization-related events in surface electrocardiograms of atrial fibrillation. Computers in Biology and Medicine, 2014, 48, 66-76.	3.9	7
89	Relevance of the Atrial Substrate Remodeling during Follow-Up to Predict Preoperatively Atrial Fibrillation Cox-Maze Surgery Outcome. IFMBE Proceedings, 2014, , 1005-1008.	0.2	0
90	Study on Atrial Arrhythmias Optimal Organization Assessment with Generalized Hurst Exponents. IFMBE Proceedings, 2014, , 1013-1016.	0.2	0

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91	Paroxysmal Atrial Fibrillation Termination Prognosis through the Application of Generalized Hurst Exponents. IFMBE Proceedings, 2014, , 973-976.	0.2	0
92	Nonlinear synchronization assessment between atrial and ventricular activations series from the surface ECG in atrial fibrillation. Biomedical Signal Processing and Control, 2013, 8, 1000-1007.	3.5	7
93	Ventricular activity morphological characterization: Ectopic beats removal in long term atrial fibrillation recordings. Computer Methods and Programs in Biomedicine, 2013, 109, 283-292.	2.6	8
94	Dynamic time warping applied to estimate atrial fibrillation temporal organization from the surface electrocardiogram. Medical Engineering and Physics, 2013, 35, 1341-1348.	0.8	15
95	Title is missing!. Journal of Medical and Biological Engineering, 2013, 33, 239.	1.0	10
96	Study on the P-wave feature time course as early predictors of paroxysmal atrial fibrillation. Physiological Measurement, 2012, 33, 1959-1974.	1.2	27
97	Short-time regularity assessment of fibrillatory waves from the surface ECG in atrial fibrillation. Physiological Measurement, 2012, 33, 969-984.	1.2	19
98	Application of Wavelet Entropy to Predict Atrial Fibrillation Progression from the Surface ECG. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-9.	0.7	22
99	Central tendency measure and wavelet transform combined in the non-invasive analysis of atrial fibrillation recordings. BioMedical Engineering OnLine, 2012, 11, 46.	1.3	14
100	Detection and removal of ventricular ectopic beats in atrial fibrillation recordings via principal component analysis. , 2011, 2011, 4693-6.		8
101	Noninvasive Time and Frequency Predictors of Long-standing Atrial Fibrillation Early Recurrence after Electrical Cardioversion. PACE - Pacing and Clinical Electrophysiology, 2011, 34, 1241-1250.	0.5	34
102	Classification of Paroxysmal and Persistent Atrial Fibrillation in Ambulatory ECG Recordings. IEEE Transactions on Biomedical Engineering, 2011, 58, 1441-1449.	2.5	50
103	Surface ECG organization time course analysis along onward episodes of paroxysmal atrial fibrillation. Medical Engineering and Physics, 2011, 33, 597-603.	0.8	6
104	Noninvasive organization analysis along consecutive episodes of paroxysmal atrial fibrillation. , 2011, 2011, 1467-70.		0
105	Validation of surface atrial fibrillation organization indicators through invasive recordings. , 2011, 2011, 5519-22.		2
106	Assessment of non-invasive time and frequency atrial fibrillation organization markers with unipolar atrial electrograms. Physiological Measurement, 2011, 32, 99-114.	1.2	25
107	Lempel-Ziv Complexity Analysis for the Evaluation of Atrial Fibrillation Organization. , 2011, , .		2
108	Optimal parameters study for sample entropy-based atrial fibrillation organization analysis. Computer Methods and Programs in Biomedicine, 2010, 99, 124-132.	2.6	88

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109	A novel application of sample entropy to the electrocardiogram of atrial fibrillation. <i>Nonlinear Analysis: Real World Applications</i> , 2010, 11, 1026-1035.	0.9	32
110	A review on sample entropy applications for the non-invasive analysis of atrial fibrillation electrocardiograms. <i>Biomedical Signal Processing and Control</i> , 2010, 5, 1-14.	3.5	147
111	The application of nonlinear metrics to assess organization differences in short recordings of paroxysmal and persistent atrial fibrillation. <i>Physiological Measurement</i> , 2010, 31, 115-130.	1.2	21
112	Application of the phasor transform for automatic delineation of single-lead ECG fiducial points. <i>Physiological Measurement</i> , 2010, 31, 1467-1485.	1.2	176
113	A new method for automatic delineation of ECG fiducial points based on the Phasor Transform. , 2010, 2010, 4586-9.		17
114	Application of frequency and sample entropy to discriminate long-term recordings of paroxysmal and persistent atrial fibrillation. , 2010, 2010, 4558-61.		8
115	Enhancement of atrial fibrillation electrical cardioversion procedures through the arrhythmia organization estimation from the ECG. , 2010, 2010, 122-5.		1
116	Optimized assessment of atrial fibrillation organization through suitable parameters of Sample Entropy. , 2010, 2010, 118-21.		2
117	Lempel-Ziv complexity analysis for the evaluation of atrial fibrillation organization. , 2010, , .		0
118	Time and frequency recurrence analysis of persistent atrial fibrillation after electrical cardioversion. <i>Physiological Measurement</i> , 2009, 30, 479-489.	1.2	20
119	Non-invasive organization variation assessment in the onset and termination of paroxysmal atrial fibrillation. <i>Computer Methods and Programs in Biomedicine</i> , 2009, 93, 148-154.	2.6	27
120	Non-invasive atrial fibrillation organization follow-up under successive attempts of electrical cardioversion. <i>Medical and Biological Engineering and Computing</i> , 2009, 47, 1247-1255.	1.6	11
121	Sample entropy of the main atrial wave predicts spontaneous termination of paroxysmal atrial fibrillation. <i>Medical Engineering and Physics</i> , 2009, 31, 917-922.	0.8	47
122	Surface ECG organization analysis to predict paroxysmal atrial fibrillation termination. <i>Computers in Biology and Medicine</i> , 2009, 39, 697-706.	3.9	14
123	A non-invasive method to predict electrical cardioversion outcome of persistent atrial fibrillation. <i>Medical and Biological Engineering and Computing</i> , 2008, 46, 625-635.	1.6	34
124	Non-Invasive Characterization of Atrial Activity Immediately Prior to Termination of Paroxysmal Atrial Fibrillation. <i>Revista Espanola De Cardiologia (English Ed )</i> , 2008, 61, 154-160.	0.4	7
125	Wavelet bidomain sample entropy analysis to predict spontaneous termination of atrial fibrillation. <i>Physiological Measurement</i> , 2008, 29, 65-80.	1.2	33
126	Predicting Electrical Cardioversion outcome from surface ECG recordings through Wavelet Sample Entropy. , 2008, , .		1



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127	Optimal beat selection study for QSRT cancellation methods in the ECG of atrial fibrillation. , 2008, , .		1
128	Adaptive singular value cancelation of ventricular activity in single-lead atrial fibrillation electrocardiograms. Physiological Measurement, 2008, 29, 1351-1369.	1.2	113
129	Robust prediction of atrial fibrillation termination using wavelet bidomain entropy analysis. , 2007, , .		0
130	Non-Linear analysis of the main atrial wave to estimate organization in paroxysmal atrial fibrillation. , 2007, , .		0
131	Non-Linear Organization Analysis of Paroxysmal Atrial Fibrillation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 1957-60.	0.5	2
132	A new method to assess sinus rhythm maintenance likelihood before electrical cardioversion of persistent atrial fibrillation. , 2007, , .		0
133	Comparison of atrial wave extraction methods from invasive recordings in atrial fibrillation. , 2007, , .		0
134	Ventricular Artifacts Cancellation from Atrial Epicardial Recordings in Atrial Tachyarrhythmias. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6504-7.	0.5	1
135	Wavelet Bidomain Regularity Analysis to Predict Spontaneous Termination of Atrial Fibrillation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 1838-41.	0.5	2
136	Organization deterioration assessment from the surface ECG in the onset and termination of paroxysmal atrial fibrillation. , 2007, , .		0
137	Adaptive singular value QRST cancellation for the analysis of short single lead atrial fibrillation electrocardiograms. , 2007, , .		5
138	Non-linear Regularity Analysis of Cardiac Atrial Signals. , 2007, , .		0
139	Bidomain Sample Entropy to Predict Termination of Atrial Arrhythmias. , 2007, , .		4
140	Comparison of Voltage Harmonic Identification Methods for Single-Phase Systems. Industrial Electronics Society (IECON ), Annual Conference of IEEE, 2006, , .	0.0	7
141	Comparison of Voltage Harmonic Identification Algorithms for Three-Phase Systems. Industrial Electronics Society (IECON ), Annual Conference of IEEE, 2006, , .	0.0	4
142	Calculation of the DC-bus Capacitors of the Back-to-back NPC Converters. , 2006, , .		10
143	Calculation of the DC-bus Capacitors of the Back-to-back NPC Converters. , 2006, , .		2
144	Power System Voltage Harmonic Identification Using Kalman Filter. , 2006, , .		0

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145	Wavelet Domain Blind Signal Separation to Analyze Supraventricular Arrhythmias from Holter Registers. Lecture Notes in Computer Science, 2004, , 1111-1117.	1.0	2
146	Recent Advances in the Noninvasive Study of Atrial Conduction Defects Preceding Atrial Fibrillation. , 0, , .		0
147	The Physionet QT Database: Study on the Reliability of P-wave Manual Annotations under Noisy Recordings. , 0, , .		1
148	Spectral Analysis of the ECG to Guide Optimal Endpoint in Catheter Ablation of Atrial Fibrillation. , 0, , .		0
149	An Efficient Algorithm Based on Wavelet Transform to Reduce Powerline Noise From Electrocardiograms. , 0, , .		1
150	Application of the Stationary Wavelet Transform to Reduce Power-line Interference in Atrial Electrograms. , 0, , .		1
151	A Fractionation-based Local Activation Wave Detector for Atrial Electrograms of Atrial Fibrillation. , 0, , .		11
152	The Contribution of Nonlinear Methods in the Understanding of Atrial Fibrillation. , 0, , .		1
153	Study on the Alternatives to Reduce High-Frequency Noise from Invasive Recordings of Atrial Fibrillation. , 0, , .		0
154	Comparative Study of Methods for Atrial Fibrillation Cycle Length Estimation in Fractionated Electrograms. , 0, , .		1
155	Study on the Stability of CFAEs to Characterize the Atrial Substrate in Atrial Fibrillation. , 0, , .		0
156	Comparative Study of Convolutional Neural Networks for ECG Quality Assessment. , 0, , .		1
157	Predicting Atrial Fibrillation Recurrence After Catheter Ablation Through Time Variability of P-wave Features. , 0, , .		0
158	Obstructive Sleep Apnea Detection Methods Based on Heart Rate Variability Analysis: Opportunities for a Future Cinc Challenge. , 0, , .		2
159	Discrimination Between CFAEs of Paroxysmal and Persistent Atrial Fibrillation with Simple Classification Models of Reduced Features. , 0, , .		0
160	Multidimensional Characterization of the Atrial Activity to Predict Electrical Cardioversion Outcome of Persistent Atrial Fibrillation. , 0, , .		0
161	Application of Deep Learning for Quality Assessment of Atrial Fibrillation ECG Recordings. , 0, , .		1
162	Time Variability of Fibrillatory Waves Energy Predicts Long-Term Outcome of Atrial Fibrillation Concomitant Surgical Ablation. , 0, , .		0

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163	Refined Multiscale Entropy Predicts Early Failure in Electrical Cardioversion of Atrial Fibrillation. , 0, , .		0
164	Limb Versus Precordial ECG Leads as Improved Predictors of Electrical Cardioversion Outcome in Persistent Atrial Fibrillation. , 0, , .		0
165	Catheter Ablation Outcome Prediction with Advanced Time-Frequency Features of the Fibrillatory Waves from Patients in Persistent Atrial Fibrillation. , 0, , .		0
166	A Deep Learning Solution for Automatized Interpretation of 12-Lead ECGs. , 0, , .		1
167	Reliability of Local Activation Waves Features to Characterize Paroxysmal Atrial Fibrillation Substrate During Sinus Rhythm. , 0, , .		0