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 the phasor transform for automatic delineation of single-lead ECG fiducial points. Physiological Measurement, 2010, 31, 1467-1485.	1.2	176
2	A review on sample entropy applications for the non-invasive analysis of atrial fibrillation electrocardiograms. Biomedical Signal Processing and Control, 2010, 5, 1-14.	3.5	147
3	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
4	Adaptive singular value cancelation of ventricular activity in single-lead atrial fibrillation electrocardiograms. Physiological Measurement, 2008, 29, 1351-1369.	1.2	113
5	Optimal parameters study for sample entropy-based atrial fibrillation organization analysis. Computer Methods and Programs in Biomedicine, 2010, 99, 124-132.	2.6	88
6	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
7	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
8	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
9	A Review on Nonlinear Methods Using Electroencephalographic Recordings for Emotion Recognition. IEEE Transactions on Affective Computing, 2021, 12, 801-820.	5.7	69
10	Application of Entropy-Based Metrics to Identify Emotional Distress from Electroencephalographic Recordings. Entropy, 2016, 18, 221.	1.1	56
11	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
12	Wavelet Entropy Automatically Detects Episodes of Atrial Fibrillation from Single-Lead Electrocardiograms. Entropy, 2015, 17, 6179-6199.	1.1	52
13	Classification of Paroxysmal and Persistent Atrial Fibrillation in Ambulatory ECG Recordings. IEEE Transactions on Biomedical Engineering, 2011, 58, 1441-1449.	2.5	50
14	Sample entropy of the main atrial wave predicts spontaneous termination of paroxysmal atrial fibrillation. Medical Engineering and Physics, 2009, 31, 917-922.	0.8	47
15	Multiscale Entropy Analysis for Recognition of Visually Elicited Negative Stress From EEG Recordings. International Journal of Neural Systems, 2019, 29, 1850038.	3.2	43
16	Morphological variability of the P-wave for premature envision of paroxysmal atrial fibrillation events. Physiological Measurement, 2014, 35, 1-14.	1.2	42
17	Discrete-time macroeconomic system: Bifurcation analysis and synchronization using fuzzy-based activation feedback control. Chaos, Solitons and Fractals, 2021, 142, 110378.	2.5	42
18	Symbolic Analysis of Brain Dynamics Detects Negative Stress. Entropy, 2017, 19, 196.	1.1	39

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19	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
20	A non-invasive method to predict electrical cardioversion outcome of persistent atrial fibrillation. Medical and Biological Engineering and Computing, 2008, 46, 625-635.	1.6	34
21	Noninvasive Time and Frequency Predictors of Longâ€Standing Atrial Fibrillation Early Recurrence after Electrical Cardioversion. PACE - Pacing and Clinical Electrophysiology, 2011, 34, 1241-1250.	0.5	34
22	Wavelet bidomain sample entropy analysis to predict spontaneous termination of atrial fibrillation. Physiological Measurement, 2008, 29, 65-80.	1.2	33
23	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
24	A novel application of sample entropy to the electrocardiogram of atrial fibrillation. Nonlinear Analysis: Real World Applications, 2010, 11, 1026-1035.	0.9	32
25	Application of Entropy-Based Features to Predict Defibrillation Outcome in Cardiac Arrest. Entropy, 2016, 18, 313.	1.1	32
26	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
27	A novel wavelet-based filtering strategy to remove powerline interference from electrocardiograms with atrial fibrillation. Physiological Measurement, 2018, 39, 115006.	1.2	28
28	Non-invasive organization variation assessment in the onset and termination of paroxysmal atrial fibrillation. Computer Methods and Programs in Biomedicine, 2009, 93, 148-154.	2.6	27
29	Study on the P-wave feature time course as early predictors of paroxysmal atrial fibrillation. Physiological Measurement, 2012, 33, 1959-1974.	1.2	27
30	Assessment of non-invasive time and frequency atrial fibrillation organization markers with unipolar atrial electrograms. Physiological Measurement, 2011, 32, 99-114.	1.2	25
31	Electrocardiographic Spectral Features for Long-Term Outcome Prognosis of Atrial Fibrillation Catheter Ablation. Annals of Biomedical Engineering, 2016, 44, 3307-3318.	1.3	23
32	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
33	The application of nonlinear metrics to assess organization differences in short recordings of paroxysmal and persistent atrial fibrillation. Physiological Measurement, 2010, 31, 115-130.	1.2	21
34	Multi-Lag Analysis of Symbolic Entropies on EEG Recordings for Distress Recognition. Frontiers in Neuroinformatics, 2019, 13, 40.	1.3	21
35	Time and frequency recurrence analysis of persistent atrial fibrillation after electrical cardioversion. Physiological Measurement, 2009, 30, 479-489.	1.2	20
36	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

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37	Short-time regularity assessment of fibrillatory waves from the surface ECG in atrial fibrillation. Physiological Measurement, 2012, 33, 969-984.	1.2	19
38	A new method for automatic delineation of ECG fiducial points based on the Phasor Transform. , 2010, 2010, 4586-9.		17
39	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
40	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
41	Nonlinear predictability analysis of brain dynamics for automatic recognition of negative stress. Neural Computing and Applications, 2020, 32, 13221-13231.	3.2	15
42	Surface ECG organization analysis to predict paroxysmal atrial fibrillation termination. Computers in Biology and Medicine, 2009, 39, 697-706.	3.9	14
43	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
44	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
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	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
47	Waveform Integrity in Atrial Fibrillation: The Forgotten Issue of Cardiac Electrophysiology. Annals of Biomedical Engineering, 2017, 45, 1890-1907.	1.3	13
48	Non-invasive atrial fibrillation organization follow-up under successive attempts of electrical cardioversion. Medical and Biological Engineering and Computing, 2009, 47, 1247-1255.	1.6	11
49	A Fractionation-based Local Activation Wave Detector for Atrial Electrograms of Atrial Fibrillation. , 0, , .		11
50	Calculation of the DC-bus Capacitors of the Back-to-back NPC Converters. , 2006, , .		10
51	Title is missing!. Journal of Medical and Biological Engineering, 2013, 33, 239.	1.0	10
52	Assessment of dispersion patterns for negative stress detection from electroencephalographic signals. Pattern Recognition, 2021, 119, 108094.	5.1	10
53	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
54	Nonlinear Methodologies Applied to Automatic Recognition of Emotions: An EEG Review. Lecture Notes in Computer Science, 2017, , 754-765.	1.0	9

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55	Application of frequency and sample entropy to discriminate long-term recordings of paroxysmal and persistent atrial fibrillation. , 2010, 2010, 4558-61.		8
56	Detection and removal of ventricular ectopic beats in atrial fibrillation recordings via principal component analysis. , 2011, 2011, 4693-6.		8
57	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
58	Electrocardiographic P-wave Delineation Based on Adaptive Slope Gaussian Detection. , 2017, , .		8
59	Combined Nonlinear Analysis of Atrial and Ventricular Series for Automated Screening of Atrial Fibrillation. Complexity, 2017, 2017, 1-13.	0.9	8
60	Detection of Negative Stress through Spectral Features of Electroencephalographic Recordings and a Convolutional Neural Network. Sensors, 2021, 21, 3050.	2.1	8
61	The Relevance of Calibration in Machine Learning-Based Hypertension Risk Assessment Combining Photoplethysmography and Electrocardiography. Biosensors, 2022, 12, 289.	2.3	8
62	Comparison of Voltage Harmonic Identification Methods for Single-Phase Systems. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	7
63	Non-Invasive Characterization of Atrial Activity Immediately Prior to Termination of Paroxysmal Atrial Fibrillation. Revista Espanola De Cardiologia (English Ed), 2008, 61, 154-160.	0.4	7
64	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
65	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
66	The P Wave Timeâ€Frequency Variability Reflects Atrial Conduction Defects before Paroxysmal Atrial Fibrillation. Annals of Noninvasive Electrocardiology, 2015, 20, 433-445.	0.5	7
67	Symbolic Entropy Analysis and Its Applications. Entropy, 2018, 20, 568.	1.1	7
68	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
69	Conditional Entropy Estimates for Distress Detection with EEG Signals. Lecture Notes in Computer Science, 2017, , 193-202.	1.0	7
70	Study of Electroencephalographic Signal Regularity for Automatic Emotion Recognition. Lecture Notes in Computer Science, 2017, , 766-777.	1.0	7
71	Surface ECG organization time course analysis along onward episodes of paroxysmal atrial fibrillation. Medical Engineering and Physics, 2011, 33, 597-603.	0.8	6
72	Application of Hurst exponents to assess atrial reverse remodeling in paroxysmal atrial fibrillation. Physiological Measurement, 2015, 36, 2231-2246.	1.2	6

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73	Study on How Catheter Ablation Affects Atrial Structures in Patients with Paroxysmal Atrial Fibrillation: The Case of the Coronary Sinus. , 2020, , .		6
74	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
75	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
76	Adaptive singular value QRST cancellation for the analysis of short single lead atrial fibrillation electrocardiograms. , 2007, , .		5
77	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
78	Characterization of f Waves. Series in Bioengineering, 2018, , 221-279.	0.3	5
79	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
80	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
81	Comparison of Voltage Harmonic Identification Algorithms for Three-Phase Systems. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	4
82	Bidomain Sample Entropy to Predict Termination of Atrial Arrhythmias. , 2007, , .		4
83	Atrial Fibrillation Screening through Combined Timing Features of Short Single-Lead Electrocardiograms. , 2017, , .		4
84	Reference database and performance evaluation of methods for extraction of atrial fibrillatory waves in the ECG. Physiological Measurement, 2019, 40, 075011.	1.2	4
85	An Experimental Review on Obstructive Sleep Apnea Detection Based on Heart Rate Variability and Machine Learning Techniques. , 2020, , .		4
86	Nonlinear Symbolic Assessment of Electroencephalographic Recordings for Negative Stress Recognition. Lecture Notes in Computer Science, 2017, , 203-212.	1.0	3
87	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
88	Comparison of Pre-Trained Deep Learning Algorithms for Quality Assessment of Electrocardiographic Recordings. , 2020, , .		3
89	ECG Quality Assessment via Deep Learning and Data Augmentation. , 2021, , .		3
90	Wavelet Domain Blind Signal Separation to Analyze Supraventricular Arrhythmias from Holter Registers. Lecture Notes in Computer Science, 2004, , 1111-1117.	1.0	2

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91	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
92	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
93	Optimized assessment of atrial fibrillation organization through suitable parameters of Sample Entropy. , 2010, 2010, 118-21.		2
94	Validation of surface atrial fibrillation organization indicators through invasive recordings. , 2011, 2011, 5519-22.		2
95	Non-lineal EEG Modelling by Using Quadratic Entropy for Arousal Level Classification. Smart Innovation, Systems and Technologies, 2016, , 3-13.	0.5	2
96	EEG Mapping for Arousal Level Quantification Using Dynamic Quadratic Entropy. Advances in Intelligent Systems and Computing, 2016, , 207-214.	0.5	2
97	Applications of Nonlinear Methods to Atrial Fibrillation. , 2017, , 387-426.		2
98	Signal Analysis in Atrial Fibrillation. Series in Bioengineering, 2019, , 331-350.	0.3	2
99	Thorough Assessment of a P-wave Delineation Algorithm Through the Use of Diverse Electrocardiographic Databases. , 2019, , .		2
100	Lempel-Ziv Complexity Analysis for the Evaluation of Atrial Fibrillation Organization. , 2011, , .		2
101	Calculation of the DC-bus Capacitors of the Back-to-back NPC Converters. , 2006, , .		2
102	Obstructive Sleep Apnea Detection Methods Based on Heart Rate Variability Analysis: Opportunities for a Future Cinc Challenge. , 0, , .		2
103	The Dissimilar Impact in Atrial Substrate Modificationof Left and Right Pulmonary Veins Isolation after Catheter Ablation of Paroxysmal Atrial Fibrillation. Journal of Personalized Medicine, 2022, 12, 462.	1.1	2
104	Novel Photoplethysmographic and Electrocardiographic Features for Enhanced Detection of Hypertensive Individuals. , 2021, , .		2
105	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
106	An Efficient Hybrid Methodology for Local Activation Waves Detection under Complex Fractionated Atrial Electrograms of Atrial Fibrillation. Sensors, 2022, 22, 5345.	2.1	2
107	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
108	Predicting Electrical Cardioversion outcome from surface ECG recordings through Wavelet Sample Entropy. , 2008, , .		1

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109	Optimal beat selection study for QSRT cancellation methods in the ECG of atrial fibrillation. , 2008, , .		1
110	Enhancement of atrial fibrillation electrical cardioversion procedures through the arrhythmia organization estimation from the ECG. , 2010, 2010, 122-5.		1
111	Study on the trustability of phase mapping methods to represent atrial potentials in atrial fibrillation. , 2015, , .		1
112	The Physionet QT Database: Study on the Reliability of P-wave Manual Annotations under Noisy Recordings. , 0, , .		1
113	An Efficient Algorithm Based on Wavelet Transform to Reduce Powerline Noise From Electrocardiograms. , 0, , .		1
114	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
115	Application of the Stationary Wavelet Transform to Reduce Power-line Interference in Atrial Electrograms. , 0, , .		1
116	The Contribution of Nonlinear Methods in the Understanding of Atrial Fibrillation. , 0, , .		1
117	Comparative Study of Methods for Atrial Fibrillation Cycle Length Estimation in Fractionated Electrograms. , 0, , .		1
118	Comparative Study of Convolutional Neural Networks for ECG Quality Assessment. , 0, , .		1
119	Application of Deep Learning for Quality Assessment of Atrial Fibrillation ECG Recordings. , 0, , .		1
120	A Deep Learning Solution for Automatized Interpretation of 12-Lead ECGs. , 0, , .		1
121	Improved Discrimination Between Healthy and Hypertensive Individuals Combining Photoplethysmography and Electrocardiography. , 2021, , .		1
122	Robust prediction of atrial fibrillation termination usingwavelet bidomain entropy analysis. , 2007, , .		0
123	Non-Linear analysis of the main atrial wave to estimate organization in paroxysmal atrial fibrillation. , 2007, , .		0
124	A new method to assess sinus rhythm maintenance likelihood before electrical cardioversion of persistent atrial fibrillation. , 2007, , .		0
125	Comparison of atrial wave extraction methods from invasive recordings in atrial fibrillation. , 2007, , .		0
126	Organization deterioration assessment from the surface ECG in the onset and termination of paroxysmal atrial fibrillation. , 2007, , .		0

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127	Non-linear Regularity Analysis of Cardiac Atrial Signals. , 2007, , .		0
128	Noninvasive organization analysis along consecutive episodes of paroxysmal atrial fibrillation. , 2011, 2011, 1467-70.		0
129	Recent Advances in the Noninvasive Study of Atrial Conduction Defects Preceding Atrial Fibrillation. , 0, , .		0
130	The lagged central tendency measure applied to assess P-wave duration variability improves paroxysmal atrial fibrillation onset prediction. , 2015, , .		0
131	Surface ECG spectral analysis to predict atrial fibrillation catheter ablation long-term outcome. , 2015, , .		0
132	Spectral Analysis of the ECG to Guide Optimal Endpoint in Catheter Ablation of Atrial Fibrillation. , 0, , .		0
133	Application of Joint Notch Filtering and Wavelet Transform for Enhanced Powerline Interference Removal in Atrial Fibrillation Electrograms. , 2018, , .		0
134	Assisting Electrophysiological Substrate Quantification in Atrial Fibrillation Ablation. , 2019, , .		0
135	Detection of Dominant Reentries in Multichannel Electrograms of Atrial Fibrillation. , 2019, , .		0
136	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
137	Power System Voltage Harmonic Identification Using Kalman Filter. , 2006, , .		0
138	Lempel-Ziv complexity analysis for the evaluation of atrial fibrillation organization. , 2010, , .		0
139	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
140	Study on Atrial Arrhythmias Optimal Organization Assessment with Generalized Hurst Exponents. IFMBE Proceedings, 2014, , 1013-1016.	0.2	0
141	Paroxysmal Atrial Fibrillation Termination Prognosis through the Application of Generalized Hurst Exponents. IFMBE Proceedings, 2014, , 973-976.	0.2	0
142	Study on the Alternatives to Reduce High-Frequency Noise from Invasive Recordings of Atrial Fibrillation. , 0, , .		0
143	Multilag Extension of Quadratic Sample Entropy for Distress Recognition with EEG Recordings. Advances in Intelligent Systems and Computing, 2019, , 274-281.	0.5	0
144	Study on the Stability of CFAEs to Characterize the Atrial Substrate in Atrial Fibrillation. , 0, , .		0

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145	Predicting Atrial Fibrillation Recurrence After Catheter Ablation Through Time Variability of P-wave Features. , 0, , .		0
146	Discrimination Between CFAEs of Paroxysmal and Persistent Atrial Fibrillation with Simple Classification Models of Reduced Features. , 0, , .		0
147	Multidimensional Characterization of the Atrial Activity to Predict Electrical Cardioversion Outcome of Persistent Atrial Fibrillation. , 0, , .		0
148	Time Variability of Fibrillatory Waves Energy Predicts Long-Term Outcome of Atrial Fibrillation Concomitant Surgical Ablation. , 0, , .		0
149	Refined Multiscale Entropy Predicts Early Failure in Electrical Cardioversion of Atrial Fibrillation. , 0, , .		0
150	Limb Versus Precordial ECG Leads as Improved Predictors of Electrical Cardioversion Outcome in Persistent Atrial Fibrillation. , 0, , .		0
151	Catheter Ablation Outcome Prediction with Advanced Time-Frequency Features of the Fibrillatory Waves from Patients in Persistent Atrial Fibrillation. , 0, , .		0
152	Reliability of Local Activation Waves Features to Characterize Paroxysmal Atrial Fibrillation Substrate During Sinus Rhythm. , 0, , .		0
153	Assessing the Stability of Complex Fractionated Atrial Electrograms for the Characterization of Atrial Substrate in Atrial Fibrillation. , 2020, , .		0
154	Reliable Paroxysmal Atrial Fibrillation Substrate Assessment During Sinus Rhythm Through Optimal Estimation of Local Activation Waves Dynamics. , 2020, , .		0
155	Time Variability of P-wave Features from the Preoperative Electrocardiogram Predicts Recurrence After Catheter Cryoablation of Atrial Fibrillation. , 2020, , .		0
156	Atrial Fibrillation Surgical Ablation Long-term Outcome Prediction Just with One Lead of the Preoperative Surface Electrocardiogram. , 2020, , .		0
157	Multidimensional Fibrillatory Waves Analysis for Improved Electrical Cardioversion Outcome Prediction in Persistent Atrial Fibrillation. , 2020, , .		0
158	Prediction of Early Failure in Electrical Cardioversion of Atrial Fibrillation Using Refined Multiscale Entropy. , 2020, , .		0
159	A Straightforward Methodology to Distinguish Complex Fractionated Atrial Electrograms of Paroxysmal from Persistent Atrial Fibrillation. , 2020, , .		0
160	Deep Learning Detection of Corrupted Segments in Recordings from Wearable Devices to Improve Atrial Fibrillation Screening. , 2020, , .		0
161	Refined Electrical Cardioversion Outcome Prediction with Bipolar Surface Standard Leads for Patients in Persistent Atrial Fibrillation. , 2020, , .		0
162	Novel Time-Frequency Features of the Fibrillatory Waves Improve Catheter Ablation Outcome Prediction of Persistent Atrial Fibrillation. , 2020, , .		0

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163	Linear and Nonlinear Correlations Between Surface and Invasive Atrial Activation Features in Catheter Ablation of Paroxysmal Atrial Fibrillation. , 2021, , .		0
164	Parallel Study on Surface and Invasive Recordings Across Catheter Ablation Steps of Paroxysmal Atrial Fibrillation. , 2021, , .		0
165	Alternative Time-Domain P-wave Analysis for Precise Information on Substrate Alteration After Pulmonary Vein Isolation for Atrial Fibrillation. , 2021, , .		0
166	Are Coronary Sinus Features Reflecting the Effect of Catheter Ablation of Atrial Fibrillation as P-waves Do?. , 2021, , .		0
167	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