JosÃ© Luis Rojo-Ãlvarez

List of Publications by Year
in descending order

131 papers	1,776 citations	361045 20 h-index	344852 36 g-index
148 all docs	148 docs citations	148 times ranked	1776 citing authors

#	Article	IF	Citations
1	Support vector machines in engineering: an overview. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2014, 4, 234-267.	4.6	137
2	Support Vector Method for RobustARMA System Identification. IEEE Transactions on Signal Processing, 2004, 52, 155-164.	3.2	116
3	Using big data from Customer Relationship Management information systems to determine the client profile in the hotel sector. Tourism Management, 2018, 68, 187-197.	5.8	98
4	Traffic sign segmentation and classification using statistical learning methods. Neurocomputing, 2015, 153, 286-299.	3.5	95
5	Deep Learning and Big Data in Healthcare: A Double Review for Critical Beginners. Applied Sciences (Switzerland), 2019, 9, 2331.	1.3	71
6	Feature selection using support vector machines and bootstrap methods for ventricular fibrillation detection. Expert Systems With Applications, 2012, 39, 1956-1967.	4.4	60
7	Support Vector Feature Selection for Early Detection of Anastomosis Leakage From Bag-of-Words in Electronic Health Records. IEEE Journal of Biomedical and Health Informatics, 2016, 20, 1404-1415.	3.9	60
8	Predicting colorectal surgical complications using heterogeneous clinical data and kernel methods. Journal of Biomedical Informatics, 2016, 61, 87-96.	2.5	57
9	Support vector machines framework for linear signal processing. Signal Processing, 2005, 85, 2316-2326.	2.1	53
10	Sudden Cardiac Risk Stratification with Electrocardiographic Indices - A Review on Computational Processing, Technology Transfer, and Scientific Evidence. Frontiers in Physiology, 2016, 7, 82.	1.3	35
11	Automatic Recognition of Long Period Events From Volcano Tectonic Earthquakes at Cotopaxi Volcano. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 5247-5257.	2.7	34
12	A robust support vector algorithm for nonparametric spectral analysis. IEEE Signal Processing Letters, 2003, 10, 320-323.	2.1	33
13	Nonparametric Model Comparison and Uncertainty Evaluation for Signal Strength Indoor Location. IEEE Transactions on Mobile Computing, 2009, 8, 1250-1264.	3.9	33
14	Nonuniform Interpolation of Noisy Signals Using Support Vector Machines. IEEE Transactions on Signal Processing, 2007, 55, 4116-4126.	3.2	32
15	Discriminating between supraventricular and ventricular tachycardias from EGM onset analysis. IEEE Engineering in Medicine and Biology Magazine, 2002, 21, 16-26.	1.1	30
16	Using daily store-level data to understand price promotion effects in a semiparametric regression model. Journal of Retailing and Consumer Services, 2006, 13, 193-204.	5.3	30
17	Symmetrical Compression Distance for Arrhythmia Discrimination in Cloud-Based Big-Data Services. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 1253-1263.	3.9	30
18	Noise Maps for Quantitative and Clinical Severity Towards Long-Term ECG Monitoring. Sensors, 2017, 17, 2448.	2.1	25

#	Article	IF	Citations
19	Multiparametric Monitoring in Equatorian Tomato Greenhouses (I): Wireless Sensor Network Benchmarking. Sensors, 2018, 18, 2555.	2.1	22
20	Feature selection of seismic waveforms for long period event detection at Cotopaxi Volcano. Journal of Volcanology and Geothermal Research, 2016, 316, 34-49.	0.8	21
21	Comparison of Detection of Arrhythmias in Patients With Chronic Heart Failure Secondary to Non-Ischemic Versus Ischemic Cardiomyopathy by 1 Versus 7-Day Holter Monitoring. American Journal of Cardiology, 2010, 106, 677-681.	0.7	20
22	On the use of conventional and statistical-learning techniques for the analysis of PISA results in Spain. Neurocomputing, 2016, 171, 625-637.	3.5	20
23	Electrocardiographic Imaging for Atrial Fibrillation: A Perspective From Computer Models and Animal Experiments to Clinical Value. Frontiers in Physiology, 2021, 12, 653013.	1.3	20
24	Informative variable identifier: Expanding interpretability in feature selection. Pattern Recognition, 2020, 98, 107077.	5.1	19
25	Heart Rate Variability on 7-Day Holter Monitoring Using a Bootstrap Rhythmometric Procedure. IEEE Transactions on Biomedical Engineering, 2010, 57, 1366-1376.	2.5	18
26	Analyzing and Forecasting Electrical Load Consumption in Healthcare Buildings. Energies, 2018, 11, 493.	1.6	18
27	Nonparametric Signal Processing Validation in T-Wave Alternans Detection and Estimation. IEEE Transactions on Biomedical Engineering, 2014, 61, 1328-1338.	2.5	17
28	Fundamental Frequency and Regularity of Cardiac Electrograms With Fourier Organization Analysis. IEEE Transactions on Biomedical Engineering, 2010, 57, 2168-2177.	2.5	16
29	Heart Rate Turbulence Denoising Using Support Vector Machines. IEEE Transactions on Biomedical Engineering, 2009, 56, 310-319.	2.5	15
30	Spectrally adapted Mercer kernels for support vector nonuniform interpolation. Signal Processing, 2014, 94, 421-433.	2.1	15
31	Safety threshold of R-wave amplitudes in patients with implantable cardioverter defibrillator. Heart, 2016, 102, 1662-1670.	1.2	15
32	Spectral analysis of intracardiac electrograms during induced and spontaneous ventricular fibrillation in humans. Europace, 2009, 11, 328-331.	0.7	14
33	A unified SVM framework for signal estimation. , 2014, 26, 1-20.		14
34	Automatic ladybird beetle detection using deep-learning models. PLoS ONE, 2021, 16, e0253027.	1.1	14
35	On the differential benchmarking of promotional efficiency with machine learning modeling (I): Principles and statistical comparison. Expert Systems With Applications, 2012, 39, 12772-12783.	4.4	13
36	Gaussian Processes for Direction-of-Arrival Estimation With Random Arrays. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 2297-2300.	2.4	13

#	Article	IF	Citations
37	A Big Data Approach to Customer Relationship Management Strategy in Hospitality Using Multiple Correspondence Domain Description. Applied Sciences (Switzerland), 2021, 11, 256.	1.3	13
38	Time and Frequency Feature Selection for Seismic Events from Cotopaxi Volcano. , 2015, , .		12
39	Assessing the impact of temporary retail price discounts intervals using SVM semiparametric regression. International Review of Retail, Distribution and Consumer Research, 2006, 16, 181-197.	1.3	11
40	On the Beat Detection Performance in Long-Term ECG Monitoring Scenarios. Sensors, 2018, 18, 1387.	2.1	11
41	Sentiment Analysis of Political Tweets From the 2019 Spanish Elections. IEEE Access, 2021, 9, 101847-101862.	2.6	11
42	Digital recovery of biomedical signals from binary images. Signal Processing, 2012, 92, 43-53.	2.1	10
43	Long-term characterization of persistent atrial fibrillation: wave morphology, frequency, and irregularity analysis. Medical and Biological Engineering and Computing, 2014, 52, 1053-1060.	1.6	10
44	Benchmarking of a T-wave alternans detection method based on empirical mode decomposition. Computer Methods and Programs in Biomedicine, 2017, 145, 147-155.	2.6	10
45	From E-911 to NG-911: Overview and Challenges in Ecuador. IEEE Access, 2018, 6, 42578-42591.	2.6	10
46	An Interoperable System toward Cardiac Risk Stratification from ECG Monitoring. International Journal of Environmental Research and Public Health, 2018, 15, 428.	1.2	10
47	Entropic Statistical Description of Big Data Quality in Hotel Customer Relationship Management. Entropy, 2019, 21, 419.	1.1	10
48	Spatio-Temporal Analysis of Water Quality Parameters in Machángara River with Nonuniform Interpolation Methods. Water (Switzerland), 2016, 8, 507.	1.2	9
49	A Flexible 12-Lead/Holter Device with Compression Capabilities for Low-Bandwidth Mobile-ECG Telemedicine Applications. Sensors, 2018, 18, 3773.	2.1	9
50	On the differential benchmarking of promotional efficiency with machine learning modelling (II): Practical applications. Expert Systems With Applications, 2012, 39, 12784-12798.	4.4	8
51	Multiparametric Monitoring in Equatorian Tomato Greenhouses (III): Environmental Measurement Dynamics. Sensors, 2018, 18, 2557.	2.1	8
52	Forecasting Promotional Sales Within the Neighbourhood. IEEE Access, 2019, 7, 74759-74775.	2.6	8
53	Enabling Heart Self-Monitoring for All and for AAL—Portable Device within a Complete Telemedicine System. Sensors, 2019, 19, 3969.	2.1	8
54	On the Statistical and Temporal Dynamics of Sentiment Analysis. IEEE Access, 2020, 8, 87994-88013.	2.6	8

#	Article	IF	Citations
55	An approach to automatic classification of Culicoides species by learning the wing morphology. PLoS ONE, 2020, 15, e0241798.	1.1	8
56	On the Black-Box Challenge for Fraud Detection Using Machine Learning (II): Nonlinear Analysis through Interpretable Autoencoders. Applied Sciences (Switzerland), 2022, 12, 3856.	1.3	8
57	Ontology for Heart Rate Turbulence Domain From The Conceptual Model of SNOMED-CT. IEEE Transactions on Biomedical Engineering, 2013, 60, 1825-1833.	2.5	7
58	On the use of multi-class support vector machines for classification of seismic signals at Cotopaxi volcano. , 2017, , .		7
59	Fetal Heart Rate Analysis for Automatic Detection of Perinatal Hypoxia Using Normalized Compression Distance and Machine Learning. Frontiers in Physiology, 2017, 8, 113.	1.3	7
60	An Accurate Probabilistic Model for TVWS Identification. Applied Sciences (Switzerland), 2019, 9, 4232.	1.3	7
61	Multiple Correspondence Analysis of Emergencies Attended by Integrated Security Services. Applied Sciences (Switzerland), 2019, 9, 1396.	1.3	7
62	Cold-Start Promotional Sales Forecasting Through Gradient Boosted-Based Contrastive Explanations. IEEE Access, 2020, 8, 137574-137586.	2.6	7
63	On the Black-Box Challenge for Fraud Detection Using Machine Learning (I): Linear Models and Informative Feature Selection. Applied Sciences (Switzerland), 2022, 12, 3328.	1.3	7
64	Using Support Vector Semiparametric Regression to Estimate the Effects of Pricing on Brand Substitution. International Journal of Market Research, 2008, 50, 533-557.	2.8	6
65	Weaning outcome prediction from heterogeneous time series using Normalized Compression Distance and Multidimensional Scaling. Expert Systems With Applications, 2013, 40, 1737-1747.	4.4	6
66	A new approach to the intracardiac inverse problem using Laplacian distance kernel. BioMedical Engineering OnLine, 2018, 17, 86.	1.3	6
67	Towards Organization Management Using Exploratory Screening and Big Data Tests: A Case Study of the Spanish Red Cross. IEEE Access, 2019, 7, 80661-80674.	2.6	6
68	On the Differential Analysis of Enterprise Valuation Methods as a Guideline for Unlisted Companies Assessment (I): Empowering Discounted Cash Flow Valuation. Applied Sciences (Switzerland), 2020, 10, 5875.	1.3	6
69	Event Analysis on Power Communication Networks With Big Data for Maintenance Forms. IEEE Access, 2018, 6, 72263-72274.	2.6	5
70	Statistical, Spatial and Temporal Mapping of 911 Emergencies in Ecuador. Applied Sciences (Switzerland), 2018, 8, 199.	1.3	5
71	Multiparametric Monitoring in Equatorian Tomato Greenhouses (II): Energy Consumption Dynamics. Sensors, 2018, 18, 2556.	2.1	5
72	On the Robustness of Multiscale Indices for Long-Term Monitoring in Cardiac Signals. Entropy, 2019, 21, 594.	1.1	5

#	Article	IF	Citations
73	Comparison of Omegawave Device and an Ambulatory ECG for RR Interval Measurement at rest. International Journal of Sports Medicine, 2021, 42, 138-146.	0.8	5
74	A Resampling Univariate Analysis Approach to Ovarian Cancer From Clinical and Genetic Data. IEEE Access, 2021, 9, 25959-25972.	2.6	5
75	Prognostic Significance of Long-Period Heart Rate Rhythms in Chronic Heart Failure. Circulation Journal, 2012, 76, 2124-2129.	0.7	4
76	Automatic Supporting System for Regionalization of Ventricular Tachycardia Exit Site in Implantable Defibrillators. PLoS ONE, 2015, 10, e0124514.	1.1	4
77	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
78	Water Quality Sensing and Spatio-Temporal Monitoring Structure with Autocorrelation Kernel Methods. Sensors, 2017, 17, 2357.	2.1	4
79	Electrocardiographic Fragmented Activity (II): A Machine Learning Approach to Detection. Applied Sciences (Switzerland), 2019, 9, 3565.	1.3	4
80	Gaussian Process Regression for Array Interpolation. , 2019, , .		4
81	On the Differential Analysis of Enterprise Valuation Methods as a Guideline for Unlisted Companies Assessment (II): Applying Machine-Learning Techniques for Unbiased Enterprise Value Assessment. Applied Sciences (Switzerland), 2020, 10, 5334.	1.3	4
82	Prediction of Healthcare Associated Infections in an Intensive Care Unit Using Machine Learning and Big Data Tools. IFMBE Proceedings, 2016, , 840-845.	0.2	4
83	Deep Neural Nets for DOA Estimation With Random Arrays. , 2020, , .		4
84	Statistical nonlinear analysis for reliable promotion decision-making. , 2014, 33, 156-168.		3
85	Classifying cardiac arrhythmic episodes via data compression. Neurocomputing, 2018, 307, 1-13.	3.5	3
86	Kernel DOA estimation in nonuniform arrays. , 2018, , .		3
87	Simple Algorithms for Estimating the Symbol Timing Offset in DCT-Based Multicarrier Systems. Wireless Communications and Mobile Computing, 2018, 2018, 1-8.	0.8	3
88	Optimal Axes for Data Value Estimation in Star Coordinates and Radial Axes Plots. Computer Graphics Forum, 2021, 40, 483-494.	1.8	3
89	Multivariate feature selection and autoencoder embeddings of ovarian cancer clinical and genetic data. Expert Systems With Applications, 2022, 206, 117865.	4.4	3
90	Fetal heart rate complexity measures to detect hypoxia. , 2015, , .		2

#	Article	IF	Citations
91	Effect of interpolation on electroanatomical mapping. , 2015, , .		2
92	Adaptive Kernel Learning for Signal Processing. , 2018, , 387-431.		2
93	Data Amount Reduction in Mosaic Image Transmission Techniques for Digital Interactive Television Applications. IEEE Access, 2018, 6, 70283-70297.	2.6	2
94	Force Trends and Pulsatility for Catheter Contact Identification in Intracardiac Electrograms during Arrhythmia Ablation. Sensors, 2018, 18, 1399.	2.1	2
95	Quantitative Cluster Headache Analysis for Neurological Diagnosis Support Using Statistical Classification. Information (Switzerland), 2020, 11, 393.	1.7	2
96	Spatial-Temporal Signals and Clinical Indices in Electrocardiographic Imaging (II): Electrogram Clustering and T-Wave Alternans. Sensors, 2020, 20, 3070.	2.1	2
97	Spatial-Temporal Signals and Clinical Indices in Electrocardiographic Imaging (I): Preprocessing and Bipolar Potentials. Sensors, 2020, 20, 3131.	2.1	2
98	Text Analytics and Mixed Feature Extraction in Ovarian Cancer Clinical and Genetic Data. IEEE Access, 2021, 9, 58034-58051.	2.6	2
99	Causal Quantification of Cannibalization During Promotional Sales in Grocery Retail. IEEE Access, 2021, 9, 34078-34089.	2.6	2
100	QRS Fragmentation Index as a New Discriminator for Early Diagnosis of Heart Diseases. , 0, , .		2
101	Spectral analysis of Electroanatomical Maps for spatial bandwidth estimation as support to ablation. , 2015, , .		1
102	A Support Vector Laplacian Distance Kernel Approach to the Inverse Problem in Intracardiac Electrophysiology. IFMBE Proceedings, 2016, , 89-94.	0.2	1
103	Influence of Normalization on the Analysis of Electroanatomical Maps with Manifold Harmonics. Lecture Notes in Computer Science, 2016, , 415-425.	1.0	1
104	Cardiac Fibrosis Detection Applying Machine Learning Techniques to Standard 12-Lead ECG. , 2018, , .		1
105	Convex Programming and Bootstrap Sensitivity for Optimized Electricity Bill in Healthcare Buildings under a Time-Of-Use Pricing Scheme. Energies, 2018, 11, 1454.	1.6	1
106	Spatio-Temporal River Contamination Measurements with Electrochemical Probes and Mobile Sensor Networks. Sustainability, 2018, 10, 1449.	1.6	1
107	Electrocardiographic Fragmented Activity (I): Physiological Meaning of Multivariate Signal Decompositions. Applied Sciences (Switzerland), 2019, 9, 3566.	1.3	1
108	Big and Deep Hype and Hope: On the Special Issue for Deep Learning and Big Data in Healthcare. Applied Sciences (Switzerland), 2019, 9, 4452.	1.3	1

#	Article	IF	Citations
109	Lack of improvement in autonomic cardiac tone after sacubitril/valsartan at lower than target doses. Journal of Electrocardiology, 2019, 52, 99-100.	0.4	1
110	Spectral Analysis and Mutual Information Estimation of Left and Right Intracardiac Electrograms during Ventricular Fibrillation. Sensors, 2020, 20, 4162.	2.1	1
111	Comparison of Infinite Impulse Response (IIR) and Finite Impulse Response (FIR) Filters in Cardiac Optical Mapping Records. Communications in Computer and Information Science, 2021, , 207-224.	0.4	1
112	Autocorrelation Metrics to Estimate Soil Moisture Persistence From Satellite Time Series: Application to Semiarid Regions. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-17.	2.7	1
113	Autocorrelation Kernel Support Vector Machines for Doppler Ultrasound M:Mode Images Denoising. , 0, , .		1
114	Clinical Severity of Noise in ECG. , 0, , .		1
115	Computational Efficiency and Accuracy for QRS Detection Algorithms on Clinical Long Term Multilead Monitoring. , 0, , .		1
116	Finding Associations among Chronic Conditions by Bootstrap and Multiple Correspondence Analysis. , 2020, , .		1
117	Web application for data exchange and follow-up in Heart Rate Turbulence. , 2015, , .		0
118	Evolution of the Heart Rate Variability complexity during Kangchenjunga climbing. , 2015, , .		0
119	Heart Rate Turbulence modeling using Boosted Regression Trees. , 2015, , .		0
120	Extended iris color features analysis and cluster headache diagnosis based on support vector classifier. , 2017, , .		0
121	Analysis of Heart Rate Variability Influence on Heart Rate Turbulence Using Boosted Regression Trees in Heart Failure Patients. , 0, , .		0
122	Effect of Different Ventricular Arrhythmia Origin on Cardiac Sound Variability Using M-mode Signal Representation. , 2017, , .		0
123	Arrhythmia Mechanism and Scaling Effect on the Spectral Properties of Electroanatomical Maps With Manifold Harmonics. IEEE Transactions on Biomedical Engineering, 2018, 65, 723-732.	2.5	0
124	T-Wave Alternans Analysis With Electrocardiographic Imaging. , 0, , .		0
125	Rapid Estimation of TVWS: A Probabilistic Approach Based on Sensed Signal Parameters. Telecom, 2020, 1, 161-180.	1.6	0
126	Data Science Analysis and Profile Representation Applied to Secondary Prevention of Acute Coronary Syndrome. IEEE Access, 2021, 9, 78607-78620.	2.6	0

#	Article	IF	Citations
127	Auto:Cropping of Phone Camera Color Images to Segment Cardiac Signals in ECG Printouts. , 0, , .		0
128	An Approach to New Methods for Digital Processing on Optical Mapping Sequences and Electrical Mapping. , 0, , .		0
129	Nonuniform Interpolation of Cardiac Navigation Maps Using Support Vector Machines. , 0, , .		0
130	A Quantitative Analysis on the Intracardiac Electrogram Contact During Ventricular Tachycardia Ablation. , 0, , .		0
131	A Group Lasso Based Method for Automatic Physiological Rhythm Analysis. , 0, , .		0