

# Mateo Aboy

## List of Publications by Year in descending order

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Version: 2024-02-01

72  
papers

2,139  
citations

257450

24  
h-index

233421

45  
g-index

72  
all docs

72  
docs citations

72  
times ranked

2226  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interpretation of the Lempel-Ziv Complexity Measure in the Context of Biomedical Signal Analysis. IEEE Transactions on Biomedical Engineering, 2006, 53, 2282-2288.	4.2	308
2	An Automatic Beat Detection Algorithm for Pressure Signals. IEEE Transactions on Biomedical Engineering, 2005, 52, 1662-1670.	4.2	161
3	A novel automatic image processing algorithm for detection of hard exudates based on retinal image analysis. Medical Engineering and Physics, 2008, 30, 350-357.	1.7	133
4	Interpretation of Approximate Entropy: Analysis of Intracranial Pressure Approximate Entropy During Acute Intracranial Hypertension. IEEE Transactions on Biomedical Engineering, 2005, 52, 1671-1680.	4.2	113
5	Prediction of Paroxysmal Atrial Fibrillation by Analysis of Atrial Premature Complexes. IEEE Transactions on Biomedical Engineering, 2004, 51, 561-569.	4.2	103
6	Reliability and accuracy of heart rate variability metrics versus ECG segment duration. Medical and Biological Engineering and Computing, 2006, 44, 747-756.	2.8	94
7	COVID-19 contact tracing apps: a stress test for privacy, the GDPR, and data protection regimes. Journal of Law and the Biosciences, 2020, 7, Isaa034.	1.6	85
8	Comparative study of approximate entropy and sample entropy robustness to spikes. Artificial Intelligence in Medicine, 2011, 53, 97-106.	6.5	79
9	Complex analysis of intracranial hypertension using approximate entropy*. Critical Care Medicine, 2006, 34, 87-95.	0.9	70
10	Pulse pressure variation: where are we today?. Journal of Clinical Monitoring and Computing, 2011, 25, 45-56.	1.6	66
11	Variability, Regularity, and Complexity of Time Series Generated by Schizophrenic Patients and Control Subjects. IEEE Transactions on Biomedical Engineering, 2006, 53, 210-218.	4.2	65
12	A Novel Algorithm to Estimate the Pulse Pressure Variation Index $\Delta mPP$ . IEEE Transactions on Biomedical Engineering, 2004, 51, 2198-2203.	4.2	63
13	Statistical Modeling of Cardiovascular Signals and Parameter Estimation Based on the Extended Kalman Filter. IEEE Transactions on Biomedical Engineering, 2008, 55, 119-129.	4.2	56
14	Automated Prediction of the Apnea-Hypopnea Index from Nocturnal Oximetry Recordings. IEEE Transactions on Biomedical Engineering, 2012, 59, 141-149.	4.2	51
15	Automated detection of obstructive sleep apnoea syndrome from oxygen saturation recordings using linear discriminant analysis. Medical and Biological Engineering and Computing, 2010, 48, 895-902.	2.8	47
16	A Microcontroller-Based Portable Electrocardiograph Recorder. IEEE Transactions on Biomedical Engineering, 2004, 51, 1686-1690.	4.2	43
17	Regulatory responses to medical machine learning. Journal of Law and the Biosciences, 2020, 7, Isaa002.	1.6	42
18	Characterization of Sample Entropy in the Context of Biomedical Signal Analysis. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5943-6.	0.5	41

#	ARTICLE	IF	CITATIONS
19	Adaptive Modeling and Spectral Estimation of Nonstationary Biomedical Signals Based on Kalman Filtering. IEEE Transactions on Biomedical Engineering, 2005, 52, 1485-1489.	4.2	37
20	Pulse Morphology Visualization and Analysis With Applications in Cardiovascular Pressure Signals. IEEE Transactions on Biomedical Engineering, 2007, 54, 1552-1559.	4.2	32
21	Automatic segmentation of long-term ECG signals corrupted with broadband noise based on sample entropy. Computer Methods and Programs in Biomedicine, 2010, 98, 118-129.	4.7	28
22	Automatic identification of activity "rest periods based on actigraphy. Medical and Biological Engineering and Computing, 2012, 50, 329-340.	2.8	27
23	Predicting survival in critical patients by use of body temperature regularity measurement based on approximate entropy. Medical and Biological Engineering and Computing, 2007, 45, 671-678.	2.8	26
24	Clinical Application of a Novel Automatic Algorithm for Actigraphy-Based Activity and Rest Period Identification to Accurately Determine Awake and Asleep Ambulatory Blood Pressure Parameters and Cardiovascular Risk. Chronobiology International, 2013, 30, 43-54.	2.0	26
25	Unsupervised classification of ventricular extrasystoles using bounded clustering algorithms and morphology matching. Medical and Biological Engineering and Computing, 2007, 45, 229-239.	2.8	25
26	Analysis of intracranial pressure during acute intracranial hypertension using Lempel "Ziv complexity: further evidence. Medical and Biological Engineering and Computing, 2007, 45, 617-620.	2.8	24
27	After Myriad, what makes a gene patent claim 'markedly different' from nature?. Nature Biotechnology, 2017, 35, 820-825.	17.5	18
28	Enhanced modified moving average analysis of T-wave alternans using a curve matching method: a simulation study. Medical and Biological Engineering and Computing, 2009, 47, 323-331.	2.8	17
29	Description of a Portable Wireless Device for High-Frequency Body Temperature Acquisition and Analysis. Sensors, 2009, 9, 7648-7663.	3.8	16
30	An Enhanced Automatic Algorithm for Estimation of Respiratory Variations in Arterial Pulse Pressure During Regions of Abrupt Hemodynamic Changes. IEEE Transactions on Biomedical Engineering, 2009, 56, 2537-2545.	4.2	16
31	Lomb-Wech periodogram for non-uniform sampling. , 2004, 2006, 271-4.		15
32	Influence of QRS complex detection errors on entropy algorithms. Application to heart rate variability discrimination. Computer Methods and Programs in Biomedicine, 2013, 110, 2-11.	4.7	15
33	Design and implementation of a portable physiologic data acquisition system*. Pediatric Critical Care Medicine, 2007, 8, 563-569.	0.5	14
34	Myriad's impact on gene patents. Nature Biotechnology, 2016, 34, 1119-1123.	17.5	14
35	International transfers of health data between the EU and USA: a sector-specific approach for the USA to ensure an "adequate" level of protection. Journal of Law and the Biosciences, 2020, 7, Isaa055.	1.6	14
36	Was the Myriad decision a 'surgical strike' on isolated DNA patents, or does it have wider impacts?. Nature Biotechnology, 2018, 36, 1146-1149.	17.5	11

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37	How does emerging patent case law in the US and Europe affect precision medicine?. Nature Biotechnology, 2019, 37, 1118-1125.	17.5	11
38	The individual RDH index: a novel vector index for statistical assessment of antihypertensive treatment reduction, duration, and homogeneity. Blood Pressure Monitoring, 2006, 11, 69-78.	0.8	10
39	An Automatic Algorithm for Stationary Segmentation of Extracellular Microelectrode Recordings. Medical and Biological Engineering and Computing, 2006, 44, 511-515.	2.8	10
40	Inertial and time-of-arrival ranging sensor fusion. Gait and Posture, 2017, 54, 1-7.	1.4	10
41	Mayo's impact on patent applications related to biotechnology, diagnostics and personalized medicine. Nature Biotechnology, 2019, 37, 513-518.	17.5	10
42	Methodological considerations in the evaluation of the duration of action of antihypertensive therapy using ambulatory blood pressure monitoring. Blood Pressure Monitoring, 2005, 10, 111-115.	0.8	9
43	A novel recursive Fourier transform for nonuniform sampled signals: application to heart rate variability spectrum estimation. Medical and Biological Engineering and Computing, 2009, 47, 697-707.	2.8	9
44	Continental drift? Do European clinical genetic testing laboratories have a patent problem?. European Journal of Human Genetics, 2019, 27, 997-1007.	2.8	8
45	Cardiovascular Signal Decomposition and Estimation with the Extended Kalman Smoother. , 2006, 2006, 3708-11.		7
46	The population RDH index: a novel vector index and graphical method for statistical assessment of antihypertensive treatment reduction, duration, and homogeneity. Blood Pressure Monitoring, 2006, 11, 143-155.	0.8	6
47	A Two-Stage Tremor Detection Algorithm for Wearable Inertial Sensors During Normal Daily Activities. , 2019, 2019, 2535-2538.		6
48	Standard contractual clauses for cross-border transfers of health data after Schrems II. Journal of Law and the Biosciences, 2021, 8, lsab007.	1.6	6
49	A novel method for nonstationary power spectral density estimation of cardiovascular pressure signals based on a Kalman filter with variable number of measurements. Medical and Biological Engineering and Computing, 2008, 46, 789-797.	2.8	5
50	Complexity Analysis of Arterial Pressure During Periods of Abrupt Hemodynamic Changes. IEEE Transactions on Biomedical Engineering, 2008, 55, 797-801.	4.2	5
51	Review of Recent Patents on Flexible Photovoltaic Applications in Portable and Niche Markets. Recent Patents on Engineering, 2013, 7, 153-166.	0.4	4
52	Pulse pressure variation estimation using a sequential monte carlo method. , 2009, 2009, 5713-6.		4
53	Pulse pressure variation tracking using sequential Monte Carlo methods. Biomedical Signal Processing and Control, 2013, 8, 333-340.	5.7	3
54	The FDA De Novo medical device pathway, patents and anticompetition. Nature Biotechnology, 2020, 38, 1028-1029.	17.5	3

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55	Mapping the European patent landscape for medical uses of known products. Nature Biotechnology, 2021, 39, 1336-1343.	17.5	3
56	A Novel Approach to Pulse Pressure Variation Estimation. , 2006, 2006, 1391-3.		2
57	One year after Vanda, are diagnostics patents transforming into methods of treatment to overcome Mayo-based rejections?. Nature Biotechnology, 2020, 38, 279-283.	17.5	2
58	Review of Recent Patents on Wearable Movement Sensors. Recent Patents on Biomedical Engineering, 2013, 6, 82-88.	0.5	2
59	European patent protection for medical uses of known products and drug repurposing. Nature Biotechnology, 2022, 40, 465-471.	17.5	2
60	T-wave Alternans Analysis Improvement by Means of Curve Alignment Prior to Distance Calculation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 690-3.	0.5	1
61	Statistical model for cardiovascular signals with independent respiratory modulation for tracking pulse pressure variation. , 2011, 2011, 4681-4.		1
62	A novel particle filtering method for estimation of pulse pressure variation during spontaneous breathing. BioMedical Engineering OnLine, 2016, 15, 94.	2.7	1
63	The Patentability of Computer-Implemented Simulations and Implications for Computer-Implemented Inventions (CIIs). Journal of Intellectual Property Law and Practice, 2021, 16, 633-635.	0.3	1
64	Has the EU Incentive for Drug Repositioning Been Effective? An Empirical Analysis of the "œ+1" Regulatory Exclusivity. IIC International Review of Intellectual Property and Competition Law, 2021, 52, 825-851.	0.2	1
65	Review of Recent Patents on Anaerobic Digester Gas for Fuel Cell Applications. Recent Patents on Engineering, 2015, 9, 113-123.	0.4	1
66	Review of Recent Patents in the Area of Intelligent, Adaptive, Wireless and GPS Enabled HVAC Control Devices. Recent Patents on Engineering, 2016, 10, 175-186.	0.4	1
67	EVIDENCE FOR DIMINISHED COMPLEXITY DURING INTRACRANIAL HYPERTENSION IN TRAUMATIC BRAIN INJURY. Critical Care Medicine, 2002, 30, A80.	0.9	0
68	Response: can a simulation study of T-wave alternans (TWA) resolve whether TWA is T-wave amplitude dependent?. Medical and Biological Engineering and Computing, 2009, 47, 355-355.	2.8	0
69	Review of Recent Patents on Carbon Nanotube Based Electrodes for use in Supercapacitor Applications. Recent Patents on Engineering, 2015, 9, 21-28.	0.4	0
70	Reply to C.D. Richter. European Journal of Human Genetics, 2020, 28, 537-538.	2.8	0
71	Review of Recent Patents on Detection and Quantification of Tremor. Recent Patents on Biomedical Engineering, 2013, 6, 89-96.	0.5	0
72	A Novel Approach to Pulse Pressure Variation Estimation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0