

# Gonzalo C sar Guti rrez-Tobal

## List of Publications by Year in descending order

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68  
papers

1,067  
citations

393982

19  
h-index

454577

30  
g-index

70  
all docs

70  
docs citations

70  
times ranked

676  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nocturnal Oximetry-based Evaluation of Habitually Snoring Children. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2017, 196, 1591-1598.	2.5	95
2	Automated Multiclass Classification of Spontaneous EEG Activity in Alzheimer's Disease and Mild Cognitive Impairment. <i>Entropy</i> , 2018, 20, 35.	1.1	75
3	Utility of AdaBoost to Detect Sleep Apnea-Hypopnea Syndrome From Single-Channel Airflow. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 63, 636-646.	2.5	54
4	Automated Screening of Children With Obstructive Sleep Apnea Using Nocturnal Oximetry: An Alternative to Respiratory Polygraphy in Unattended Settings. <i>Journal of Clinical Sleep Medicine</i> , 2017, 13, 693-702.	1.4	50
5	Evaluation of Machine-Learning Approaches to Estimate Sleep Apnea Severity From At-Home Oximetry Recordings. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2019, 23, 882-892.	3.9	48
6	A machine learning-based test for adult sleep apnoea screening at home using oximetry and airflow. <i>Scientific Reports</i> , 2020, 10, 5332.	1.6	46
7	Linear and nonlinear analysis of airflow recordings to help in sleep apnoea-hypopnoea syndrome diagnosis. <i>Physiological Measurement</i> , 2012, 33, 1261-1275.	1.2	40
8	Oximetry use in obstructive sleep apnea. <i>Expert Review of Respiratory Medicine</i> , 2018, 12, 665-681.	1.0	40
9	Utility of bispectrum in the screening of pediatric sleep apnea-hypopnea syndrome using oximetry recordings. <i>Computer Methods and Programs in Biomedicine</i> , 2018, 156, 141-149.	2.6	37
10	A Convolutional Neural Network Architecture to Enhance Oximetry Ability to Diagnose Pediatric Obstructive Sleep Apnea. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2021, 25, 2906-2916.	3.9	37
11	Assessment of Time and Frequency Domain Entropies to Detect Sleep Apnoea in Heart Rate Variability Recordings from Men and Women. <i>Entropy</i> , 2015, 17, 123-141.	1.1	36
12	Pattern recognition in airflow recordings to assist in the sleep apnoea-hypopnoea syndrome diagnosis. <i>Medical and Biological Engineering and Computing</i> , 2013, 51, 1367-1380.	1.6	34
13	Cloud algorithm-driven oximetry-based diagnosis of obstructive sleep apnoea in symptomatic habitually snoring children. <i>European Respiratory Journal</i> , 2019, 53, 1801788.	3.1	33
14	Diagnosis of pediatric obstructive sleep apnea: Preliminary findings using automatic analysis of airflow and oximetry recordings obtained at patients' home. <i>Biomedical Signal Processing and Control</i> , 2015, 18, 401-407.	3.5	30
15	Assessment of automated analysis of portable oximetry as a screening test for moderate-to-severe sleep apnea in patients with chronic obstructive pulmonary disease. <i>PLoS ONE</i> , 2017, 12, e0188094.	1.1	23
16	Detrended fluctuation analysis of the oximetry signal to assist in paediatric sleep apnoea-hypopnoea syndrome diagnosis. <i>Physiological Measurement</i> , 2018, 39, 114006.	1.2	22
17	Assessment of Airflow and Oximetry Signals to Detect Pediatric Sleep Apnea-Hypopnea Syndrome Using AdaBoost. <i>Entropy</i> , 2020, 22, 670.	1.1	22
18	Reliability of machine learning to diagnose pediatric obstructive sleep apnea: Systematic review and meta-analysis. <i>Pediatric Pulmonology</i> , 2022, 57, 1931-1943.	1.0	22

#	ARTICLE	IF	CITATIONS
19	Multiscale Entropy Analysis of Unattended Oximetric Recordings to Assist in the Screening of Paediatric Sleep Apnoea at Home. <i>Entropy</i> , 2017, 19, 284.	1.1	21
20	Wavelet analysis of oximetry recordings to assist in the automated detection of moderate-to-severe pediatric sleep apnea-hypopnea syndrome. <i>PLoS ONE</i> , 2018, 13, e0208502.	1.1	21
21	Assessment of oximetry-based statistical classifiers as simplified screening tools in the management of childhood obstructive sleep apnea. <i>Sleep and Breathing</i> , 2018, 22, 1063-1073.	0.9	20
22	Usefulness of recurrence plots from airflow recordings to aid in paediatric sleep apnoea diagnosis. <i>Computer Methods and Programs in Biomedicine</i> , 2020, 183, 105083.	2.6	17
23	Wavelet Analysis of Overnight Airflow to Detect Obstructive Sleep Apnea in Children. <i>Sensors</i> , 2021, 21, 1491.	2.1	17
24	Bispectral analysis of overnight airflow to improve the pediatric sleep apnea diagnosis. <i>Computers in Biology and Medicine</i> , 2021, 129, 104167.	3.9	16
25	Heart rate variability spectrum characteristics in children with sleep apnea. <i>Pediatric Research</i> , 2021, 89, 1771-1779.	1.1	15
26	Ensemble-learning regression to estimate sleep apnea severity using at-home oximetry in adults. <i>Applied Soft Computing Journal</i> , 2021, 111, 107827.	4.1	14
27	Bispectral Analysis of Heart Rate Variability to Characterize and Help Diagnose Pediatric Sleep Apnea. <i>Entropy</i> , 2021, 23, 1016.	1.1	13
28	A 2D convolutional neural network to detect sleep apnea in children using airflow and oximetry. <i>Computers in Biology and Medicine</i> , 2022, 147, 105784.	3.9	13
29	Estudio de la adherencia al tratamiento con presión continua positiva en la vía aérea en pacientes con síndrome de apnea obstructiva del sueño en el confinamiento impuesto durante la pandemia de COVID-19. <i>Archivos De Bronconeumología</i> , 2020, 56, 818-819.	0.4	12
30	Study of adherence to continuous positive airway pressure treatment in patients with obstructive sleep apnea syndrome in the confinement during the COVID-19 pandemic. <i>Archivos De Bronconeumología</i> , 2020, 56, 818-819.	0.4	12
31	Heart rate variability as a potential biomarker of pediatric obstructive sleep apnea resolution. <i>Sleep</i> , 2022, 45, .	0.6	12
32	Irregularity and Variability Analysis of Airflow Recordings to Facilitate the Diagnosis of Paediatric Sleep Apnoea-Hypopnoea Syndrome. <i>Entropy</i> , 2017, 19, 447.	1.1	10
33	Symbolic dynamics to enhance diagnostic ability of portable oximetry from the Phone Oximeter in the detection of paediatric sleep apnoea. <i>Physiological Measurement</i> , 2018, 39, 104002.	1.2	9
34	Pediatric Sleep Apnea: The Overnight Electroencephalogram as a Phenotypic Biomarker. <i>Frontiers in Neuroscience</i> , 2021, 15, 644697.	1.4	9
35	Analysis and classification of oximetry recordings to predict obstructive sleep apnea severity in children. , 2015, 2015, 4540-3.		8
36	Convolutional Neural Networks to Detect Pediatric Apnea-Hypopnea Events from Oximetry. , 2019, 2019, 3555-3558.		8

#	ARTICLE	IF	CITATIONS
37	Automated analysis of unattended portable oximetry by means of Bayesian neural networks to assist in the diagnosis of sleep apnea. , 2016, , .		7
38	Positive airway pressure and electrical stimulation methods for obstructive sleep apnea treatment: a patent review (2005 – 2014). Expert Opinion on Therapeutic Patents, 2015, 25, 971-989.	2.4	6
39	Regularity analysis of nocturnal oximetry recordings to assist in the diagnosis of sleep apnoea syndrome. Medical Engineering and Physics, 2016, 38, 216-224.	0.8	6
40	Influence of Chronic Obstructive Pulmonary Disease and Moderate-To-Severe Sleep Apnoea in Overnight Cardiac Autonomic Modulation: Time, Frequency and Non-Linear Analyses. Entropy, 2019, 21, 381.	1.1	6
41	Improving the Diagnostic Ability of Oximetry Recordings in Pediatric Sleep Apnea-Hypopnea Syndrome by Means of Multi-Class AdaBoost. , 2018, 2018, 167-170.		5
42	Automated analysis of nocturnal oximetry as screening tool for childhood obstructive sleep apnea-hypopnea syndrome. , 2015, 2015, 2800-3.		4
43	Multi-class adaboost to detect Sleep Apnea-Hypopnea Syndrome severity from oximetry recordings obtained at home. , 2016, , .		4
44	Usefulness of discrete wavelet transform in the analysis of oximetry signals to assist in childhood sleep apnea-hypopnea syndrome diagnosis. , 2017, 2017, 3753-3756.		4
45	Automatic Assessment of Pediatric Sleep Apnea Severity Using Overnight Oximetry and Convolutional Neural Networks. , 2020, 2020, 633-636.		4
46	Assessment of Nocturnal Autonomic Cardiac Imbalance in Positional Obstructive Sleep Apnea. A Multiscale Nonlinear Approach. Entropy, 2020, 22, 1404.	1.1	4
47	Spectral and temporal characterization of sleep spindles – methodological implications. Journal of Neural Engineering, 2021, 18, 036014.	1.8	4
48	Apnea-hypopnea index estimation from spectral analysis of airflow recordings. , 2012, 2012, 3444-7.		3
49	Usefulness of Spectral Analysis of Respiratory Rate Variability to Help in Pediatric Sleep Apnea-Hypopnea Syndrome Diagnosis. , 2019, 2019, 4580-4583.		3
50	Automatic Sleep Staging in Children with Sleep Apnea using Photoplethysmography and Convolutional Neural Networks. , 2021, 2021, 216-219.		3
51	Bispectral Analysis to Enhance Oximetry as a Simplified Alternative for Pediatric Sleep Apnea Diagnosis. , 2018, 2018, 175-178.		2
52	Classification Methods from Heart Rate Variability to Assist in SAHS Diagnosis. IFMBE Proceedings, 2014, , 1825-1828.	0.2	2
53	Editorial: Unraveling Sleep and Its Disorders Using Novel Analytical Approaches. Frontiers in Neuroscience, 2022, 16, .	1.4	2
54	Statistical and nonlinear analysis of oximetry from respiratory polygraphy to assist in the diagnosis of Sleep Apnea in children. , 2014, 2014, 1860-3.		1

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55	Pulse Rate Variability Analysis to Enhance Oximetry as at-Home Alternative for Sleep Apnea Diagnosing. IFMBE Proceedings, 2019, , 213-217.	0.2	1
56	Spectral EEG Differences in Children with Obstructive Sleep Apnea. , 2019, , .		1
57	Intraindividual Characterization of the Sleep Spindle Variability in Healthy Subjects. , 2020, 2020, 3473-3476.		1
58	A Bayesian neural network approach to compare the spectral information from nasal pressure and thermistor airflow in the automatic sleep apnea severity estimation. , 2017, 2017, 3741-3744.		1
59	Network Analysis on Overnight EEG Spectrum to Assess Relationships Between Paediatric Sleep Apnoea and Cognition. IFMBE Proceedings, 2020, , 1138-1146.	0.2	1
60	Assessment of spectral bands of interest in airflow signal to assist in sleep apnea-hypopnea syndrome diagnosis. , 2013, 2013, 5021-4.		0
61	Exploring the spectral information of airflow recordings to help in pediatric Obstructive Sleep Apnea-Hypopnea Syndrome diagnosis. , 2014, 2014, 2298-301.		0
62	Applying Variable Ranking to Oximetric Recordings in Sleep Apnea Diagnosis. IFMBE Proceedings, 2014, , 969-972.	0.2	0
63	Assessment of an automated neural network based on unsupervised oximetry at home in the diagnosis of patients with moderate-to-severe SAHS and COPD. , 2016, , .		0
64	Automated analysis of overnight oximetry recordings by means of support vector machines to assist in the diagnosis of paediatric sleep apnoea. , 2016, , .		0
65	Automated detection of childhood sleep apnea using discrete wavelet transform of nocturnal oximetry and anthropometric variables. , 2017, , .		0
66	Usefulness of symbolic dynamics to characterize oximetric recordings from a smartphone in the detection of pediatric sleep apnea. , 2018, , .		0
67	A bagging-based automatic method to estimate apnea-hypopnea index from home-oximetry recordings. , 2019, , .		0
68	Design and assessment of an automated prediction model for 30-day re-hospitalization after a COPD exacerbation using genetic algorithms. , 2019, , .		0