Marco A F Pimentel

List of Publications by Year
in descending order

41 papers	2,653 citations	471061 17 h-index	476904 29 g-index
45 all docs	45 docs citations	45 times ranked	3422 citing authors

#	Article	IF	Citations
1	A review of novelty detection. Signal Processing, 2014, 99, 215-249.	2.1	1,122
2	Breathing Rate Estimation From the Electrocardiogram and Photoplethysmogram: A Review. IEEE Reviews in Biomedical Engineering, 2018, 11, 2-20.	13.1	224
3	Toward a Robust Estimation of Respiratory Rate From Pulse Oximeters. IEEE Transactions on Biomedical Engineering, 2017, 64, 1914-1923.	2.5	197
4	Predictive Monitoring of Mobile Patients by Combining Clinical Observations With Data From Wearable Sensors. IEEE Journal of Biomedical and Health Informatics, 2014, 18, 722-730.	3.9	196
5	The association between the neutrophil-to-lymphocyte ratio and mortality in critical illness: an observational cohort study. Critical Care, 2015, 19, 13.	2.5	124
6	A comparison of the ability of the National Early Warning Score and the National Early Warning Score 2 to identify patients at risk of in-hospital mortality: A multi-centre database study. Resuscitation, 2019, 134, 147-156.	1.3	104
7	The National Early Warning Score 2 (NEWS2). Clinical Medicine, 2019, 19, 260-260.	0.8	77
8	Making Big Data Useful for Health Care: A Summary of the Inaugural MIT Critical Data Conference. JMIR Medical Informatics, 2014, 2, e22.	1.3	70
9	Trajectories of vital signs in patients with COVID-19. Resuscitation, 2020, 156, 99-106.	1.3	47
10	Remote health diagnosis and monitoring in the time of COVID-19. Physiological Measurement, 2020, 41, 10TR01.	1.2	44
11	A Robust Fusion Model for Estimating Respiratory Rate From Photoplethysmography and Electrocardiography. IEEE Transactions on Biomedical Engineering, 2018, 65, 2033-2041.	2.5	42
12	Predicting in-hospital mortality and unanticipated admissions to the intensive care unit using routinely collected blood tests and vital signs: Development and validation of a multivariable model. Resuscitation, 2018, 133, 75-81.	1.3	40
13	Detecting Deteriorating Patients in the Hospital: Development and Validation of a Novel Scoring System. American Journal of Respiratory and Critical Care Medicine, 2021, 204, 44-52.	2.5	39
14	Heart beat detection in multimodal physiological data using a hidden semi-Markov model and signal quality indices. Physiological Measurement, 2015, 36, 1717-1727.	1.2	33
15	Manual centile-based early warning scores derived from statistical distributions of observational vital-sign data. Resuscitation, 2018, 129, 55-60.	1.3	33
16	Modelling physiological deterioration in post-operative patient vital-sign data. Medical and Biological Engineering and Computing, 2013, 51, 869-877.	1.6	29
17	A Multivariate Timeseries Modeling Approach to Severity of Illness Assessment and Forecasting in ICU with Sparse, Heterogeneous Clinical Data. Proceedings of the AAAI Conference on Artificial Intelligence, 2015, 2015, 446-453.	3.6	27
18	A Real-Time Wearable System for Monitoring Vital Signs of COVID-19 Patients in a Hospital Setting. Frontiers in Digital Health, 2021, 3, 630273.	1.5	21

#	Article	IF	Citations
19	Gaussian process regression in vital-sign early warning systems. , 2012, 2012, 6161-4.		20
20	The effect of fractional inspired oxygen concentration on early warning score performance: A database analysis. Resuscitation, 2019, 139, 192-199.	1.3	18
21	Robust estimation of respiratory rate via ECG- and PPG-derived respiratory quality indices. , 2016, 2016, 676-679.		16
22	Probabilistic estimation of respiratory rate using Gaussian processes. , 2013, 2013, 2902-5.		14
23	Gaussian process clustering for the functional characterisation of vital-sign trajectories. , 2013, , .		14
24	Unsupervised Bayesian Inference to Fuse Biosignal Sensory Estimates for Personalizing Care. IEEE Journal of Biomedical and Health Informatics, 2019, 23, 47-58.	3.9	14
25	Estimation of respiratory rate from motion contaminated photoplethysmography signals incorporating accelerometry. Healthcare Technology Letters, 2019, 6, 19-26.	1.9	11
26	Protocol for a prospective, controlled, cross-sectional, diagnostic accuracy study to evaluate the specificity and sensitivity of ambulatory monitoring systems in the prompt detection of hypoxia and during movement. BMJ Open, 2020, 10, e034404.	0.8	10
27	The Use of Wearable Pulse Oximeters in the Prompt Detection of Hypoxemia and During Movement: Diagnostic Accuracy Study. Journal of Medical Internet Research, 2022, 24, e28890.	2.1	10
28	Multi-task Gaussian process models for biomedical applications. , 2014, , .		9
29	A Chest Patch for Continuous Vital Sign Monitoring: Clinical Validation Study During Movement and Controlled Hypoxia. Journal of Medical Internet Research, 2021, 23, e27547.	2.1	8
30	Bayesian optimisation of Gaussian processes for identifying the deteriorating patient. , 2017, , .		6
31	Smoothing Effect in Vital Sign Recordings: Fact or Fiction? A Retrospective Cohort Analysis of Manual and Continuous Vital Sign Measurements to Assess Data Smoothing in Postoperative Care. Anesthesia and Analgesia, 2018, 127, 960-966.	1.1	6
32	Outcome Prediction for Patients with Traumatic Brain Injury with Dynamic Features from Intracranial Pressure and Arterial Blood Pressure Signals: A Gaussian Process Approach. Acta Neurochirurgica Supplementum, 2016, 122, 85-91.	0.5	6
33	Bayesian fusion of algorithms for the robust estimation of respiratory rate from the photoplethysmogram. , 2015, 2015, 6138-41.		5
34	A unified approach for respiratory motion prediction and correlation with multi-task Gaussian Processes. , 2014, , .		4
35	Physiological trajectory of patients pre and post ICU discharge[1]. , 2014, 2014, 3160-3.		4
36	Point process models for novelty detection on spatial point patterns and their extremes. Computational Statistics and Data Analysis, 2018, 125, 86-103.	0.7	4

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37	Intelligent Electronic Health Systems. , 2015, , 73-98.		1
38	Protocol for a systematic review assessing ambulatory vital sign monitoring impact on deterioration detection and related clinical outcomes in hospitalised patients. BMJ Open, 2021, 11, e047715.	0.8	1
39	Reply to: NEWS2 needs to be tested in prospective trials involving patients with confirmed hypercapnia. Resuscitation, 2019, 139, 371-372.	1.3	0
40	Cross-sectional centiles of blood pressure by age and sex: a four-hospital database retrospective observational analysis. BMJ Open, 2020, 10, e033618.	0.8	0
41	Reply to: Trajectories of vital signs in patients with Covid-19. Resuscitation, 2021, 162, 451-452.	1.3	0