Alan Murray

List of Publications by Year
in descending order

140 papers	4,132 citations	145106 33 h-index	156644 58 g-index
143 all docs	143 docs citations	143 times ranked	4519 citing authors

#	Article	IF	Citations
1	Automated â€˜oscillometricâ€™ blood pressure measuring devices: how they work and what they measure. Journal of Human Hypertension, 2023, 37, 93-100.	1.0	10
2	Cuffless blood pressure measuring devices: review and statement by the European Society of Hypertension Working Group on Blood Pressure Monitoring and Cardiovascular Variability. Journal of Hypertension, 2022, 40, 1449-1460.	0.3	65
3	Influence of Finger Movement on the Stability of the Oscillometric Pulse Waveform for Blood Pressure Measurement. , 2021, , .		0
4	Age-related changes in pulse risetime measured by multi-site photoplethysmography. Physiological Measurement, 2020, 41, 074001.	1.2	19
5	A Novel Translational Ovine Pulmonary Adenocarcinoma Model for Human Lung Cancer. Frontiers in Oncology, 2019, 9, 534.	1.3	11
6	Ovine Pulmonary Adenocarcinoma: A Unique Model to Improve Lung Cancer Research. Frontiers in Oncology, 2019, 9, 335.	1.3	21
7	Development and characterisation of acquired radioresistant breast cancer cell lines. Radiation Oncology, 2019, 14, 64.	1.2	72
8	Preclinical Organotypic Models for the Assessment of Novel Cancer Therapeutics and Treatment. Current Topics in Microbiology and Immunology, 2019, , 225.	0.7	1
9	Biocompatibility of common implantable sensor materials in a tumor xenograft model. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 1620-1633.	1.6	16
10	Effect of Ectopic Beats on Heart Rate Variability Indices in Heart Failure Patients. IFMBE Proceedings, 2019, , 361-365.	0.2	3
11	A universal standard for the validation of blood pressure measuring devices. Journal of Hypertension, 2018, 36, 472-478.	0.3	135
12	A Universal Standard for the Validation of Blood Pressure Measuring Devices. Hypertension, 2018, 71, 368-374.	1.3	257
13	Comparison of time-domain, frequency-domain and non-linear analysis for distinguishing congestive heart failure patients from normal sinus rhythm subjects. Biomedical Signal Processing and Control, 2018, 42, 30-36.	3.5	35
14	Effect of Respiration on the Characteristic Ratios of Oscillometric Pulse Amplitude Envelope in Blood Pressure Measurement. , 2018, 2018, 3646-3649.		2
15	Innovative multi-site photoplethysmography measurement and analysis demonstrating increased arterial stiffness in paediatric heart transplant recipients. Physiological Measurement, 2018, 39, 074007.	1.2	16
16	Heart sound classification from unsegmented phonocardiograms. Physiological Measurement, 2017, 38, 1658-1670.	1.2	54
17	Applications of Complexity Analysis in Clinical Heart Failure. , 2017, , 301-325.		5
18	Variation of the Korotkoff Stethoscope Sounds During Blood Pressure Measurement: Analysis Using a Convolutional Neural Network. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 1593-1598.	3.9	21

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19	False alarms during patient monitoring in clinical intensive care units are highly related to poor quality of the monitored electrocardiogram signals. Physiological Measurement, 2016, 37, 1383-1391.	1.2	9
20	A method for extracting respiratory frequency during blood pressure measurement, from oscillometric cuff pressure pulses and Korotkoff sounds recorded during the measurement. , 2016, 2016, 4268-4271.		2
21	Respiratory modulation of oscillometric cuff pressure pulses and Korotkoff sounds during clinical blood pressure measurement in healthy adults. BioMedical Engineering OnLine, 2016, 15, 53.	1.3	9
22	Comparison of stethoscope bell and diaphragm, and of stethoscope tube length, for clinical blood pressure measurement. Blood Pressure Monitoring, 2016, 21, 178-183.	0.4	14
23	Effect of catheter ablation on quality of life in patients with atrial fibrillation and its correlation with arrhythmia outcome. Open Heart, 2015, 2, e000302.	0.9	19
24	Arteries Stiffen With Age, but Can Retain an Ability to Become More Elastic With Applied External Cuff Pressure. Medicine (United States), 2015, 94, e1831.	0.4	8
25	The U wave in atrial fibrillation. , 2015, , .		2
26	Reliability of clinical alarm detection in intensive care units. , 2015, , .		5
27	Need for re-validation of automated blood pressure devices for use in unstable conditions. , 2015, , .		0
28	Comparison of repeatability of blood pressure measurements between oscillometric and auscultatory methods. , 2015, , .		6
29	Principal component analysis of atrial fibrillation: Inclusion of posterior ECG leads does not improve correlation with left atrial activity. Medical Engineering and Physics, 2015, 37, 251-255.	0.8	5
30	Cardiac Iodine-123-Meta-Iodo-Benzylguanidine Uptake in Carotid Sinus Hypersensitivity. PLoS ONE, 2015, 10, e0126241.	1.1	3
31	Extracting fetal heart beats from maternal abdominal recordings: selection of the optimal principal components. Physiological Measurement, 2014, 35, 1649-1664.	1.2	18
32	Does the Position or Contact Pressure of the Stethoscope Make Any Difference to Clinical Blood Pressure Measurements. Medicine (United States), 2014, 93, e301.	0.4	11
33	In response. Blood Pressure Monitoring, 2014, 19, 120-121.	0.4	1
34	Electrocardiographic Reference Values for a Population of Older Adults in Subâ€Saharan Africa. Annals of Noninvasive Electrocardiology, 2014, 19, 34-42.	0.5	10
35	Novel photoplethysmography cardiovascular assessments in patients with Raynaud's phenomenon and systemic sclerosis: a pilot study. Rheumatology, 2014, 53, 1855-1863.	0.9	29
36	Effect of respiration on Korotkoff sounds and oscillometric cuff pressure pulses during blood pressure measurement. Medical and Biological Engineering and Computing, 2014, 52, 467-73.	1.6	19

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37	Non-Invasive Estimation Of Left Atrial Dominant Frequency In Atrial Fibrillation From Different Electrode Sites: Insight From Body Surface Potential Mapping. Journal of Atrial Fibrillation, 2014, 7, 1131.	0.5	4
38	Design, Development, Training and Use of Medical Devices; with Practical Examples from Cardiovascular Medicine and Surgery. IFMBE Proceedings, 2014, , 3-6.	0.2	1
39	Elastic properties of peripheral arteries in heart failure patients in comparison with normal subjects. Journal of Physiological Sciences, 2013, 63, 195-201.	0.9	11
40	Modeling carotid and radial artery pulse pressure waveforms by curve fitting with Gaussian functions. Biomedical Signal Processing and Control, 2013, 8, 449-454.	3.5	61
41	Effect of mechanical behaviour of the brachial artery on blood pressure measurement during both cuff inflation and cuff deflation. Blood Pressure Monitoring, 2013, 18, 265-271.	0.4	16
42	Comparison of Body Surface and Intracardiac ECG Recordings in Patients with Atrial Fibrillation during Electrophysiological Studies. IFMBE Proceedings, 2013, , 612-615.	0.2	0
43	Cardiovascular System Modeling. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-2.	0.7	3
44	Chronic fatigue syndrome and impaired peripheral pulse characteristics on orthostasisâ€“a new potential diagnostic biomarker. Physiological Measurement, 2012, 33, 231-241.	1.2	30
45	Laser Doppler assessment of dermal circulatory changes in people with coronary artery disease. Microvascular Research, 2012, 84, 55-59.	1.1	34
46	Evaluation of an algorithm based on single-condition decision rules for binary classification of 12-lead ambulatory ECG recording quality. Physiological Measurement, 2012, 33, 1435-1448.	1.2	31
47	Spatial Pattern of P Waves in Paroxysmal Atrial Fibrillation Patients in Sinus Rhythm and Controls. PACE - Pacing and Clinical Electrophysiology, 2012, 35, 819-826.	0.5	4
48	An Implementation of a Spike-Response Model With Escape Noise Using an Avalanche Diode. IEEE Transactions on Biomedical Circuits and Systems, 2011, 5, 231-243.	2.7	5
49	How Important is the Recommended Slow Cuff Pressure Deflation Rate for Blood Pressure Measurement?. Annals of Biomedical Engineering, 2011, 39, 2584-2591.	1.3	23
50	Estimation of mean arterial pressure from the oscillometric cuff pressure: comparison of different techniques. Medical and Biological Engineering and Computing, 2011, 49, 33-39.	1.6	31
51	Heart rate and blood pressure interactions during attempts to consciously raise or lower heart rate and blood pressure in normotensive subjects. Physiological Measurement, 2011, 32, 359-367.	1.2	5
52	Peripheral arterial volume distensibility: significant differences with age and blood pressure measured using an applied external pressure. Physiological Measurement, 2011, 32, 499-512.	1.2	23
53	Principal Component Analysis as a Tool for Analyzing Beat-to-Beat Changes in ECG Features: Application to ECG-Derived Respiration. IEEE Transactions on Biomedical Engineering, 2010, 57, 821-829.	2.5	140
54	Circadian variation of human ventricular fibrillation dominant frequency. Resuscitation, 2010, 81, 950-955.	1.3	1

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55	Neuromorphic Circuit Implementation of Isotropic Sequence Order Learning. , 2010, , .		0
56	Comparative reproducibility of dermal microvascular blood flow changes in response to acetylcholine iontophoresis, hyperthermia and reactive hyperaemia. Physiological Measurement, 2010, 31, 1-11.	1.2	136
57	Results of carotid sinus massage in a tertiary referral unit--is carotid sinus syndrome still relevant?. Age and Ageing, 2009, 38, 680-686.	0.7	22
58	Microvascular optical assessment confirms the presence of peripheral autonomic dysfunction in primary biliary cirrhosis. Liver International, 2009, 29, 1467-1472.	1.9	15
59	Non-invasive quantification of peripheral arterial volume distensibility and its non-linear relationship with arterial pressure. Journal of Biomechanics, 2009, 42, 1032-1037.	0.9	37
60	Increased Pulse Wave Velocity and Blood Pressure in Children Who Have Undergone Cardiac Transplantation. Journal of Heart and Lung Transplantation, 2009, 28, 21-25.	0.3	23
61	A prospective comparison of bilateral photoplethysmography versus the ankle-brachial pressure index for detecting and quantifying lower limb peripheral arterial disease. Journal of Vascular Surgery, 2008, 47, 794-802.	0.6	92
62	Determination of aortic valve opening time and left ventricular peak filling rate from the peripheral pulse amplitude in patients with ectopic beats. Physiological Measurement, 2008, 29, 1411-1419.	1.2	8
63	Automatic blood pressure measurement: the oscillometric waveform shape is a potential contributor to differences between oscillometric and auscultatory pressure measurements. Journal of Hypertension, 2008, 26, 35-43.	0.3	48
64	We need to develop wider vision to reduce errors. BMJ: British Medical Journal, 2008, 337, a1500-a1500.	2.4	1
65	Non-invasivein vivoassessment of changes in peripheral arterial properties with estimation of arterial volume compliance. Physiological Measurement, 2007, 28, 1317-1327.	1.2	17
66	Validation of oscillometric noninvasive blood pressure measurement devices using simulators. Blood Pressure Monitoring, 2007, 12, 251-253.	0.4	18
67	Effect of the shapes of the oscillometric pulse amplitude envelopes and their characteristic ratios on the differences between auscultatory and oscillometric blood pressure measurements. Blood Pressure Monitoring, 2007, 12, 297-305.	0.4	32
68	Photoplethysmography Assessments in Cardiovascular Disease. Measurement and Control, 2006, 39, 80-83.	0.9	26
69	Can a simulator that regenerates physiological waveforms evaluate oscillometric non-invasive blood pressure devices?. Blood Pressure Monitoring, 2006, 11, 63-67.	0.4	24
70	Comparison of Atrial Signal Extraction Algorithms in 12-Lead ECGs With Atrial Fibrillation. IEEE Transactions on Biomedical Engineering, 2006, 53, 343-346.	2.5	61
71	Comparison of magnetocardiography and electrocardiography: a study of automatic measurement of dispersion of ventricular repolarization. Europace, 2006, 8, 887-893.	0.7	29
72	Analysis of surface electrocardiograms in atrial fibrillation: techniques, research, and clinical applications. Europace, 2006, 8, 911-926.	0.7	175

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73	Thermography and colour duplex ultrasound assessments of arterio-venous fistula function in renal patients. Physiological Measurement, 2006, 27, 51-60.	1.2	18
74	Recommendations for blood pressure measuring devices for office/clinic use in low resource settings. Blood Pressure Monitoring, 2005, 10, 3-10.	0.4	48
75	Automated non-invasive blood pressure devices: are they suitable for use?. Blood Pressure Monitoring, 2005, 10, 275-281.	0.4	21
76	Surface Atrial Frequency Analysis in Patients with Atrial Fibrillation: Assessing the Effects of Linear Left Atrial Ablation. Journal of Cardiovascular Electrophysiology, 2005, 16, 838-844.	0.8	29
77	Effects of External Pressure on Arteries Distal to the Cuff During Sphygmomanometry. IEEE Transactions on Biomedical Engineering, 2005, 52, 1120-1127.	2.5	17
78	Time for reflection. Medical and Biological Engineering and Computing, 2005, 43, 1-1.	1.6	11
79	Time for change. Medical and Biological Engineering and Computing, 2005, 43, 693-693.	1.6	0
80	Photoplethysmography detection of lower limb peripheral arterial occlusive disease: a comparison of pulse timing, amplitude and shape characteristics. Physiological Measurement, 2005, 26, 811-821.	1.2	95
81	Autonomic Function Is Impaired in Elderly Stroke Survivors. Stroke, 2005, 36, 1026-1030.	1.0	96
82	Assessment of a technique to determine the mechanical properties of coronary arteries using mock arteries. Physiological Measurement, 2004, 25, 997-1011.	1.2	4
83	Characterization of the Korotkoff sounds using joint timeâ€“frequency analysis. Physiological Measurement, 2004, 25, 107-117.	1.2	32
84	Effect of premature ventricular beats on manual and automatic repolarization measurements. Journal of Electrocardiology, 2004, 37, 181-189.	0.4	3
85	Magnetocardiography for pharmacology safety studies requiring high patient throughput and reliability. Journal of Electrocardiology, 2004, 37, 187-192.	0.4	20
86	Interaction between cardiac beat-to-beat interval changes and systolic blood pressure changes. Clinical Autonomic Research, 2004, 14, 92-98.	1.4	10
87	Editorial: In praise of referees. Medical and Biological Engineering and Computing, 2004, 42, 1-1.	1.6	0
88	Surface Atrial Frequency Analysis in Patients with Atrial Fibrillation:. A Tool For Evaluating the Effects of Intervention. Journal of Cardiovascular Electrophysiology, 2004, 15, 1021-1026.	0.8	54
89	Effects on baroreflex sensitivity measurements when different protocols are used to induce regular changes in beat-to-beat intervals and systolic pressure. Physiological Measurement, 2004, 25, 523-538.	1.2	7
90	Comparison of Automatic Repolarization Measurement Techniques in the Normal Magnetocardiogram. PACE - Pacing and Clinical Electrophysiology, 2003, 26, 2096-2102.	0.5	7

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91	Age-related changes in the characteristics of the photoplethysmographic pulse shape at various body sites. Physiological Measurement, 2003, 24, 297-307.	1.2	154
92	Effect of changes in heart rate and in action potential duration on the electrocardiogram T wave shape. Physiological Measurement, 2002, 23, 355-364.	1.2	22
93	Microvascular blood flow and skin temperature changes in the fingers following a deep inspiratory gasp. Physiological Measurement, 2002, 23, 365-373.	1.2	67
94	The forgotten Korotkoff phases: How often are phases II and III present, and how do they relate to the other Korotkoff phases?. American Journal of Hypertension, 2002, 15, 264-268.	1.0	14
95	Origin on the electrocardiogram of U-waves and abnormal U-wave inversion. Cardiovascular Research, 2002, 53, 202-208.	1.8	35
96	Fractal analysis in the detection of colonic cancer images. IEEE Transactions on Information Technology in Biomedicine, 2002, 6, 54-58.	3.6	140
97	Modelling cardiac repolarisation for the study of the T wave: effect of repolarisation sequence. Chaos, Solitons and Fractals, 2002, 13, 1743-1748.	2.5	3
98	Cardiac repolarisation can be detected as an ordered spatial process on the body surface. Chaos, Solitons and Fractals, 2002, 13, 1749-1753.	2.5	0
99	Errors in Repolarization Measurement Using Magnetocardiography. PACE - Pacing and Clinical Electrophysiology, 2002, 25, 1223-1229.	0.5	8
100	Quantification of T Wave Shape Changes Following Exercise. PACE - Pacing and Clinical Electrophysiology, 2002, 25, 1230-1234.	0.5	22
101	T-Wave Shape in Clinical Research. Circulation, 2001, 104, .	1.6	2
102	Effect of Lead Exclusion for the Manual Measurement of QT Dispersion. PACE - Pacing and Clinical Electrophysiology, 2001, 24, 75-81.	0.5	9
103	Assessment of computer-controlled inflation/deflation for determining the properties of PTCA balloon catheters with pressure-volume curves. Physiological Measurement, 2001, 22, 299-308.	1.2	9
104	Relation between heart rate and pulse transit time during paced respiration. Physiological Measurement, 2001, 22, 425-432.	1.2	132
105	Relationship of baroreflex sensitivity and blood pressure in an older population. Journal of Hypertension, 2000, 18, 1629-1633.	0.3	31
106	Explaining the T-wave shape in the ECG. Nature, 2000, 403, 40-40.	13.7	45
107	Dispersion of QT Intervals: A Measure of Dispersion of Repolarization or Simply a Projection Effect?. PACE - Pacing and Clinical Electrophysiology, 2000, 23, 1392-1396.	0.5	15
108	Computer Model for Study of Cardiac Repolarization. Journal of Cardiovascular Electrophysiology, 2000, 11, 895-899.	0.8	26

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109	Heart rate and blood pressure variability in normal subjects compared with data from beat-to-beat models developed from de Boer's model of the cardiovascular system. Physiological Measurement, 2000, 21, 305-318.	1.2	24
110	Similarity in bilateral photoplethysmographic peripheral pulse wave characteristics at the ears, thumbs and toes. Physiological Measurement, 2000, 21, 369-377.	1.2	83
111	Coherence between body surface ECG leads and intracardiac signals increases during the first 10 s of ventricular fibrillation in the human heart. Physiological Measurement, 1999, 20, 159-166.	1.2	3
112	Modelling the relationship between peripheral blood pressure and blood volume pulses using linear and neural network system identification techniques. Physiological Measurement, 1999, 20, 287-301.	1.2	65
113	Repeatability of body sway measurements; day-to-day variation measured by sway magnetometry. Physiological Measurement, 1998, 19, 159-164.	1.2	17
114	Postural stability of normal subjects measured by sway magnetometry: pathlength and area for the age range 15 to 64 years. Physiological Measurement, 1998, 19, 103-109.	1.2	17
115	Interobserver Variability in Recognizing Arousal in Respiratory Sleep Disorders. American Journal of Respiratory and Critical Care Medicine, 1998, 158, 358-362.	2.5	101
116	Measurement of angioplasty lumen volume and wall compliance: a laboratory study. Physiological Measurement, 1997, 18, 39-47.	1.2	5
117	Baroreflex function in sedentary and endurance-trained elderly people. Age and Ageing, 1997, 26, 289-294.	0.7	18
118	Identification of non-organic instability by sway magnetometry. International Journal of Audiology, 1997, 31, 275-282.	0.7	4
119	Assessing ECG signal quality on a coronary care unit. Physiological Measurement, 1996, 17, 249-258.	1.2	46
120	Measurement of the vestibulo-ocular reflex by magnetometry during active head movement. International Journal of Audiology, 1996, 30, 325-331.	0.7	0
121	Comparison of Lower Limb Arterial Assessments Using Color-Duplex Ultrasound and Ankle/Brachial Pressure Index Measurements. Angiology, 1996, 47, 225-232.	0.8	35
122	Evidence for Electrical Organization During Ventricular Fibrillation in the Human Heart. Journal of Cardiovascular Electrophysiology, 1995, 6, 616-624.	0.8	15
123	Analysis of the Body Surface ECG Measured in Independent Leads During Ventricular Fibrillation in Humans. PACE - Pacing and Clinical Electrophysiology, 1995, 18, 1876-1881.	0.5	25
124	A Randomized Controlled Clinical Study to Quantify the Effect of Small Changes in the Design of Pacing Electrodes on Threshold Voltages. PACE - Pacing and Clinical Electrophysiology, 1995, 18, 2150-2154.	0.5	2
125	Biomedical engineering and electrophysiology. Medical and Biological Engineering and Computing, 1995, 33, 361-361.	1.6	0
126	Monitoring oxygenator gas exchange performance. Perfusion (United Kingdom), 1994, 9, 163-171.	0.5	2

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127	Comparison of Body Sway Analysis Techniques: Assessment with Subjects Standing on a Stable Surface. Acta Oto-Laryngologica, 1994, 114, 115-119.	0.3	34
128	Addendum to the penumbra of a 6-MV x-ray beam as measured by thermoluminescent dosimetry and evaluated using an inverse square root function [Med. Phys. 20 , 1429-1438 (1993)]. Medical Physics, 1994, 21, 1261-1261.	1.6	0
129	Editorial: Contributions of medical engineering to advances in cardiology and cardiovascular diagnosis and therapy. Medical and Biological Engineering and Computing, 1994, 32, S1-S2.	1.6	1
130	Clinical thermoluminescence dosimetry: how do expectations and results compare?. Radiotherapy and Oncology, 1993, 26, 151-161.	0.3	25
131	Monitoring brain function during cardiothoracic surgery in children and adults at two levels of hypothermia. Electroencephalography and Clinical Neurophysiology, 1990, 76, 268-270.	0.3	3
132	Do Electrode and Lead Design Differences for Permanent Cardiac Pacing Translate into Clinically Demonstrable Differences? (Comparison of Sintered Platinum and Activated Vitreous and Porous) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.3	4
133	Accuracy and Repeatability of Bladder Volume Measurement Using Ultrasonic Imaging. Journal of Urology, 1986, 136, 808-812.	0.2	119
134	Stability of the human body investigated by sway magnetometry. Journal of Medical Engineering and Technology, 1986, 10, 126-130.	0.8	23
135	Comparison of EEG monitoring techniques: An evaluation during cardiac surgery. Electroencephalography and Clinical Neurophysiology, 1985, 61, 323-330.	0.3	22
136	Coronary care unit ECG monitoring. Journal of Medical Engineering and Technology, 1982, 6, 53-61.	0.8	3
137	Mexiletine in the Prophylaxis of Ventricular Arrhythmias During Acute Myocardial Infarction. Journal of Cardiovascular Pharmacology, 1979, 1, 43-52.	0.8	54
138	Analysis in Cardiac Stability over Thirty Minute Periods. , 0, , .		2
139	Pulse Interval Modulation-based Method to Extract the Respiratory Rate from Oscillometric Cuff Pressure Waveform During Blood Pressure Measurement. , 0, , .		0
140	Abnormal Heart Sounds Detected from Short Duration Unsegmented Phonocardiograms by Wavelet Entropy. , 0, , .		13