Dingchang Zheng

List of Publications by Year
in descending order

130	2,507	249298	286692
papers	citations	26 h-index	43 g-index

132	132	132	2749
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Interpretable Machine Learning for COVID-19: An Empirical Study on Severity Prediction Task. IEEE Transactions on Artificial Intelligence, 2023, 4, 764-777.	3.4	15
2	Investigation on Pulse Wave Forward Peak Detection and Its Applications in Cardiovascular Health. IEEE Transactions on Biomedical Engineering, 2022, 69, 700-709.	2.5	5
3	Photoplethysmographic assessment of arterial stiffness and endothelial function. , 2022, , 235-276.		2
4	Index of microcirculatory resistance: state-of-the-art and potential applications in computational simulation of coronary artery disease. Journal of Zhejiang University: Science B, 2022, 23, 123-140.	1.3	17
5	Statistical Analysis of the Consistency of HRV Analysis Using BCG or Pulse Wave Signals. Sensors, 2022, 22, 2423.	2.1	3
6	Effect of microcirculatory dysfunction on coronary hemodynamics: A pilot study based on computational fluid dynamics simulation. Computers in Biology and Medicine, 2022, 146, 105583.	3.9	7
7	A preliminary observation on rod cell photobiomodulation in treating diabetic macular edema. Advances in Ophthalmology Practice and Research, 2022, 2, 100051.	0.3	2
8	Regional identification of information flow termination of electrohysterographic signals: Towards understanding human uterine electrical propagation. Computer Methods and Programs in Biomedicine, 2022, 223, 106967.	2.6	2
9	Clinical evaluation of stretchable and wearable inkjet-printed strain gauge sensor for respiratory rate monitoring at different measurements locations. Journal of Clinical Monitoring and Computing, 2021, 35, 453-462.	0.7	15
10	Effect of electrode configuration on recognizing uterine contraction with electrohysterogram: Analysis using a convolutional neural network. International Journal of Imaging Systems and Technology, 2021, 31, 972-980.	2.7	1
11	Automatic recognition of uterine contractions with electrohysterogram signals based on the zero-crossing rate. Scientific Reports, 2021, 11, 1956.	1.6	4
12	Clinical Evaluation of Respiratory Rate Measurements on COPD (Male) Patients Using Wearable Inkjet-Printed Sensor. Sensors, 2021, 21, 468.	2.1	10
13	Extraction of Coronary Atherosclerotic Plaques From Computed Tomography Imaging: A Review of Recent Methods. Frontiers in Cardiovascular Medicine, 2021, 8, 597568.	1.1	22
14	Deep learning-based photoplethysmography classification for peripheral arterial disease detection: a proof-of-concept study. Physiological Measurement, 2021, 42, 054002.	1.2	33
15	Influence of aging and increased blood pressure on oscillometric cuff pressure waveform characteristics. Journal of Hypertension, 2021, Publish Ahead of Print, 2157-2163.	0.3	2
16	Development and validation of a deep learning-based automatic auscultatory blood pressure measurement method. Biomedical Signal Processing and Control, 2021, 68, 102742.	3.5	3
17	Filtering-induced time shifts in photoplethysmography pulse features measured at different body sites: the importance of filter definition and standardization. Physiological Measurement, 2021, 42, 074001.	1.2	25
18	Comparison of Newtonian and Non-newtonian Fluid Models in Blood Flow Simulation in Patients With Intracranial Arterial Stenosis. Frontiers in Physiology, 2021, 12, 718540.	1.3	33

#	Article	IF	Citations
19	Evaluation of cuff deflation and inflation rates on a deep learning-based automatic blood pressure measurement method: a pilot evaluation study. Blood Pressure Monitoring, 2021, 26, 129-134.	0.4	2
20	Consistency in Geometry Among Coronary Atherosclerotic Plaques Extracted From Computed Tomography Angiography. Frontiers in Physiology, 2021, 12, 715265.	1.3	6
21	Obesity needs to be addressed to tackle the increased prevalence of diabetes in China â€“ Temporal changes from 2003 to 2009. Preventive Medicine Reports, 2021, 24, 101625.	0.8	1
22	Photoplethysmography (PPG): state-of-the-art methods and applications. Physiological Measurement, 2021, 42, 100301.	1.2	12
23	Preliminary Study: Learning the Impact of Simulation Time on Reentry Location and Morphology Induced by Personalized Cardiac Modeling. Frontiers in Physiology, 2021, 12, 733500.	1.3	0
24	Effects of inorganic nitrate and vitamin C co-supplementation on blood pressure and vascular function in younger and older healthy adults: A randomised double-blind crossover trial. Clinical Nutrition, 2020, 39, 708-717.	2.3	35
25	Evaluation of electrohysterogram measured from different gestational weeks for recognizing preterm delivery: a preliminary study using random Forest. Biocybernetics and Biomedical Engineering, 2020, 40, 352-362.	3.3	24
26	An ERP Study on the Auditory Stream Segregation in Cochlear Implant Simulations: Effects of Frequency Separation and Time Interval. , 2020, 2020, 3260-3263.		0
27	Cortical Characterization of Reverberation Time in Reverberant Speech. , 2020, 2020, 3314-3317.		1
28	Dataset on blood flow and instantaneous wave-free ratio in normal and stenosed coronary arteries. Data in Brief, 2020, 32, 106011.	0.5	0
29	Influences of Sensor Placement Site and Subject Posture on Measurement of Respiratory Frequency Using Triaxial Accelerometers. Frontiers in Physiology, 2020, 11, 823.	1.3	12
30	Analysis of Electrohysterographic Signal Propagation Direction during Uterine Contraction: the Application of Directed Information. , 2020, 2020, 21-25.		1
31	Uterus Modeling from Cell to Organ Level: towards Better Understanding of Physiological Basis of Uterine Activity. IEEE Reviews in Biomedical Engineering, 2020, PP, 1-1.	13.1	2
32	Advancing PPG Signal Quality and Know-How Through Knowledge Translationâ€"From Experts to Student and Researcher. Frontiers in Digital Health, 2020, 2, 619692.	1.5	16
33	Effect of temporal misalignment on understanding Mandarin sentences in simulated combined electric-and-acoustic stimulation. Journal of the Acoustical Society of America, 2020, 148, EL433-EL439.	0.5	0
34	Cuffless Blood Pressure Estimation Using Single Channel Photoplethysmography: A Two-Step Method. IEEE Access, 2020, 8, 58146-58154.	2.6	41
35	Cuffless Single-Site Photoplethysmography for Blood Pressure Monitoring. Journal of Clinical Medicine, 2020, 9, 723.	1.0	89
36	Effect of microcirculatory resistance on coronary blood flow and instantaneous wave-free ratio: A computational study. Computer Methods and Programs in Biomedicine, 2020, 196, 105632.	2.6	12

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37	State-of-the-Art Computational Models of Circle of Willis With Physiological Applications: A Review. IEEE Access, 2020, 8, 156261-156273.	2.6	30
38	Significance of considering respiratory movement in estimating sleep stage. Biomedical Engineering Letters, 2020, 10, 321-322.	2.1	0
39	Multimodal Photoplethysmography-Based Approaches for Improved Detection of Hypertension. Journal of Clinical Medicine, 2020, 9, 1203.	1.0	32
40	Microaneurysms detection in color fundus images using machine learning based on directional local contrast. BioMedical Engineering OnLine, 2020, 19, 21.	1.3	38
41	Comparison of different modulations of photoplethysmography in extracting respiratory rate: from a physiological perspective. Physiological Measurement, 2020, 41, 094001.	1.2	34
42	Clinical Evaluation of Stretchable and Wearable Inkjet-Printed Strain Gauge Sensor for Respiratory Rate Monitoring at Different Body Postures. Applied Sciences (Switzerland), 2020, 10, 480.	1.3	31
43	Application of decision tree in determining the importance of surface electrohysterography signal characteristics for recognizing uterine contractions. Biocybernetics and Biomedical Engineering, 2019, 39, 806-813.	3.3	20
44	Deep learning-based automatic blood pressure measurement: evaluation of the effect of deep breathing, talking and arm movement. Annals of Medicine, 2019, 51, 397-403.	1.5	8
45	Multi-Site Photoplethysmography Technology for Blood Pressure Assessment: Challenges and Recommendations. Journal of Clinical Medicine, 2019, 8, 1827.	1.0	65
46	Factors affecting the intelligibility of high-intensity-level-based speech. Journal of the Acoustical Society of America, 2019, 146, EL151-EL157.	0.5	5
47	Evaluation of convolutional neural network for recognizing uterine contractions with electrohysterogram. Computers in Biology and Medicine, 2019, 113, 103394.	3.9	32
48	Fabrication and Evaluation of a Novel Non-Invasive Stretchable and Wearable Respiratory Rate Sensor Based on Silver Nanoparticles Using Inkjet Printing Technology. Polymers, 2019, 11, 1518.	2.0	38
49	Automatic Detection of Hard Exudates in Color Retinal Images Using Dynamic Threshold and SVM Classification: Algorithm Development and Evaluation. BioMed Research International, 2019, 2019, 1-13.	0.9	65
50	Toward Accurate Extraction of Respiratory Frequency From the Photoplethysmogram: Effect of Measurement Site. Frontiers in Physiology, 2019, 10, 732.	1.3	45
51	The profile of sight-threatening diabetic retinopathy in patients attending a specialist eye clinic in Hangzhou, China. BMJ Open Ophthalmology, 2019, 4, e000236.	0.8	16
52	Recent development of respiratory rate measurement technologies. Physiological Measurement, 2019, 40, 07TR01.	1.2	169
53	A novel deep learning based automatic auscultatory method to measure blood pressure. International Journal of Medical Informatics, 2019, 128, 71-78.	1.6	23
54	Simulation of inter atrial block based on a human atrial model. Journal of Zhejiang University: Science B, 2019, 20, 300-309.	1.3	3

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55	Effect of band power weighting on understanding sentences synthesized with temporal information. Journal of the Acoustical Society of America, 2019, 145, EL168-EL172.	0.5	0
56	Quantitative Comparison of Photoplethysmographic Waveform Characteristics: Effect of Measurement Site. Frontiers in Physiology, 2019, 10, 198.	1.3	93
57	Studying the Effect of Carrier Type on the Perception of Vocoded Stimuli via Mismatch Negativity. , 2019, 2019, 3167-3170.		2
58	Preliminary Study on the Efficient Electrohysterogram Segments for Recognizing Uterine Contractions with Convolutional Neural Networks. BioMed Research International, 2019, 2019, 1-9.	0.9	11
59	Electrocardiogram (ECG) patterns of left anterior fascicular block and conduction impairment in ventricular myocardium: a whole-heart model-based simulation study. Journal of Zhejiang University: Science B, 2018, 19, 49-56.	1.3	7
60	Changes in the bilateral pulse transit time difference with a moving arm. Technology and Health Care, 2018, 26, 113-119.	0.5	1
61	Understanding low-pass-filtered Mandarin sentences: Effects of fundamental frequency contour and single-channel noise suppression. Journal of the Acoustical Society of America, 2018, 143, EL141-EL146.	0.5	3
62	Gaussian modelling characteristics changes derived from finger photoplethysmographic pulses during exercise and recovery. Microvascular Research, 2018, 116, 20-25.	1.1	9
63	Relationship between carotid artery sclerosis and blood pressure variability in essential hypertension patients. Computers in Biology and Medicine, 2018, 92, 73-77.	3.9	15
64	Quantification of radial arterial pulse characteristics change during exercise and recovery. Journal of Physiological Sciences, 2018, 68, 113-120.	0.9	14
65	Effect of Respiration on the Characteristic Ratios of Oscillometric Pulse Amplitude Envelope in Blood Pressure Measurement. , 2018, 2018, 3646-3649.		2
66	Towards understanding the aetiology of high myopic strabismus using mechanical analysis and finite element modelling. International Journal of Medical Engineering and Informatics, 2018, 10, 199.	0.2	0
67	Arterial Pulse Waveform Characteristics Difference between the Three Trimesters of Healthy Pregnant Women. , 2018, 2018, 5317-5320.		2
68	Gaussian Modelling Characteristics of Peripheral Arterial Pulse: Difference between Measurements from the Three Trimesters of Healthy Pregnancy. Journal of Healthcare Engineering, 2018, 2018, 1-9.	1.1	8
69	Blood Pressure Estimation Using Photoplethysmography Only: Comparison between Different Machine Learning Approaches. Journal of Healthcare Engineering, 2018, 2018, 1-13.	1.1	118
70	Changes of Arterial Pulse Waveform Characteristics with Gestational Age during Normal Pregnancy. Scientific Reports, 2018, 8, 15571.	1.6	14
71	Innovative multi-site photoplethysmography measurement and analysis demonstrating increased arterial stiffness in paediatric heart transplant recipients. Physiological Measurement, 2018, 39, 074007.	1.2	16
72	Quantitative Comparison of Korotkoff Sound Waveform Characteristics: Effects of Static Cuff Pressures and Stethoscope Positions. Annals of Biomedical Engineering, 2018, 46, 1736-1744.	1.3	5

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73	Advanced Signal Processing for Cardiovascular and Neurological Diseases. Computational and Mathematical Methods in Medicine, 2018, 2018, 1-2.	0.7	0
74	Muscle Extremely Low Frequency Magnetic Stimulation Eliminates the Effect of Fatigue on EEG-EMG Coherence during the Lateral Raise Task: A Pilot Quantitative Investigation. BioMed Research International, 2018, 2018, 1-8.	0.9	4
75	Peripheral arterial volume distensibility changes with applied external pressure: significant difference between arteries with different compliance. Scientific Reports, 2017, 7, 40545.	1.6	3
76	Validation of an Adaptive Transfer Function Method to Estimate the Aortic Pressure Waveform. IEEE Journal of Biomedical and Health Informatics, 2017, 21, 1599-1606.	3.9	11
77	Effects of force load, muscle fatigue and extremely low frequency magnetic stimulation on EEG signals during side arm lateral raise task. Physiological Measurement, 2017, 38, 745-758.	1.2	9
78	Effects of noise suppression and envelope dynamic range compression on the intelligibility of vocoded sentences for a tonal language. Journal of the Acoustical Society of America, 2017, 142, 1157-1166.	0.5	6
79	Change of bilateral difference in radial artery pulse morphology with one-side arm movement. Artery Research, 2017, 19, 1.	0.3	3
80	Effects of room environment and nursing experience on clinical blood pressure measurement. Blood Pressure Monitoring, 2017, 22, 79-85.	0.4	7
81	Comparison of the onset of uterine contractions determined from tocodynamometry and maternal perception. , 2017, 2017, 1376-1379.		2
82	Comparison of electrohysterogram characteristics during uterine contraction and non-contraction during labor. , 2017, 2017, 2924-2927.		8
83	Significantly Reduced Blood Pressure Measurement Variability for Both Normotensive and Hypertensive Subjects: Effect of Polynomial Curve Fitting of Oscillometric Pulses. BioMed Research International, 2017, 2017, 1-8.	0.9	4
84	Effects of Force Load, Muscle Fatigue, and Magnetic Stimulation on Surface Electromyography during Side Arm Lateral Raise Task: A Preliminary Study with Healthy Subjects. BioMed Research International, 2017, 2017, 1-9.	0.9	13
85	Quantitative Assessment of Blood Pressure Measurement Accuracy and Variability from Visual Auscultation Method by Observers without Receiving Medical Training. BioMed Research International, 2017, 2017, 1-8.	0.9	4
86	Effect of respiratory pattern on automated clinical blood pressure measurement: an observational study with normotensive subjects. Clinical Hypertension, 2017, 23, 15.	0.7	16
87	Comparison of electrohysterogram signal measured by surface electrodes with different designs: A computational study with dipole band and abdomen models. Scientific Reports, 2017, 7, 17282.	1.6	4
88	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
89	Quantification of vascular function changes under different emotion states: A pilot study. Technology and Health Care, 2017, 25, 447-456.	0.5	4
90	Role of CaMKII and PKA in Early Afterdepolarization of Human Ventricular Myocardium Cell: A Computational Model Study. Computational and Mathematical Methods in Medicine, 2016, 2016, 1-8.	0.7	11

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91	Assessing the effect of noise-reduction to the intelligibility of low-pass filtered speech. , 2016, 2016, 4563-4566.		0
92	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
93	Quantification of MRI and MRS characteristics changes in a rat model at different stage of cerebral ischemia. Neurological Research, 2016, 38, 640-646.	0.6	1
94	Effect of multiple clinical factors on recurrent angina after percutaneous coronary intervention. Medicine (United States), 2016, 95, e5015.	0.4	4
95	Regression models for near-infrared measurement of subcutaneous adipose tissue thickness. Physiological Measurement, 2016, 37, 1024-1034.	1.2	0
96	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
97	Detection of Coupling in Short Physiological Series by a Joint Distribution Entropy Method. IEEE Transactions on Biomedical Engineering, 2016, 63, 2231-2242.	2.5	24
98	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
99	An exploratory study of reverse exchange systems used for medical devices in the UK National Health Service (NHS). Supply Chain Management, 2016, 21, 194-215.	3.7	14
100	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
101	Athletic Differences in the Characteristics of the Photoplethysmographic Pulse Shape: Effect of Maximal Oxygen Uptake and Maximal Muscular Voluntary Contraction. BioMed Research International, 2015, 2015, 1-8.	0.9	12
102	Need for re-validation of automated blood pressure devices for use in unstable conditions. , 2015, , .		0
103	Assessing the complexity of short-term heartbeat interval series by distribution entropy. Medical and Biological Engineering and Computing, 2015, 53, 77-87.	1.6	192
104	Effects of handgrip exercise or inorganic nitrate supplementation on 24-h ambulatory blood pressure and peripheral arterial function in overweight and obese middle age and older adults: A pilot RCT. Maturitas, 2015, 82, 228-235.	1.0	32
105	Modelling Arterial Pressure Waveforms Using Gaussian Functions and Two-Stage Particle Swarm Optimizer. BioMed Research International, 2014, 2014, 1-10.	0.9	9
106	Extracting fetal heart beats from maternal abdominal recordings: selection of the optimal principal components. Physiological Measurement, 2014, 35, 1649-1664.	1.2	18
107	Gaussian fitting for carotid and radial artery pressure waveforms: comparison between normal subjects and heart failure patients. Bio-Medical Materials and Engineering, 2014, 24, 271-277.	0.4	14
108	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

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109	In response. Blood Pressure Monitoring, 2014, 19, 120-121.	0.4	1
110	A low-complexity data-adaptive approach for premature ventricular contraction recognition. Signal, Image and Video Processing, 2014, 8, 111-120.	1.7	50
111	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
112	Decreased peripheral arterial volume distensibility in patients with branch retinal vein occlusion in comparison with normal subjects. Scientific Reports, 2014, 4, 6685.	1.6	5
113	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
114	Analysis of heart rate variability using fuzzy measure entropy. Computers in Biology and Medicine, 2013, 43, 100-108.	3.9	129
115	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
116	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
117	Cardiovascular System Modeling. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-2.	0.7	3
118	Effect of respiration, talking and small body movements on blood pressure measurement. Journal of Human Hypertension, 2012, 26, 458-462.	1.0	31
119	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
120	Title is missing!. Journal of Medical and Biological Engineering, 2012, 32, 245.	1.0	38
121	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
122	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
123	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
124	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
125	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
126	Non-invasivein vivoassessment of changes in peripheral arterial properties with estimation of arterial volume compliance. Physiological Measurement, 2007, 28, 1317-1327.	1.2	17

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127	Pulse Interval Modulation-based Method to Extract the Respiratory Rate from Oscillometric Cuff Pressure Waveform During Blood Pressure Measurement. , 0, , .		0
128	Detection of Atrial Fibrillation Using Decision Tree Ensemble. , 0, , .		26
129	Phase Difference between Respiration Signal and Respiratory Modulation Signal from Oscillometric Cuff Pressure Pulses during Blood Pressure Measurement. , 0, , .		0
130	Effect of Autonomic Cardiac Modulation on Speech Perception in Noise. , 0, , .		0