List of Publications by Year in descending order

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Ιινι-Οή Ηληνι

#	Article	IF	CITATIONS
1	Toward Ubiquitous Blood Pressure Monitoring via Pulse Transit Time: Theory and Practice. IEEE Transactions on Biomedical Engineering, 2015, 62, 1879-1901.	4.2	640
2	GPS-based real-time identification of tire-road friction coefficient. IEEE Transactions on Control Systems Technology, 2002, 10, 331-343.	5.2	177
3	Smartphone-based blood pressure monitoring via the oscillometric finger-pressing method. Science Translational Medicine, 2018, 10, .	12.4	147
4	Ballistocardiogram: Mechanism and Potential for Unobtrusive Cardiovascular Health Monitoring. Scientific Reports, 2016, 6, 31297.	3.3	122
5	Ballistocardiogram as Proximal Timing Reference for Pulse Transit Time Measurement: Potential for Cuffless Blood Pressure Monitoring. IEEE Transactions on Biomedical Engineering, 2015, 62, 2657-2664.	4.2	114
6	New adaptive approaches to real-time estimation of vehicle sideslip angle. Control Engineering Practice, 2009, 17, 1367-1379.	5.5	108
7	Weighing Scale-Based Pulse Transit Time is a Superior Marker of Blood Pressure than Conventional Pulse Arrival Time. Scientific Reports, 2016, 6, 39273.	3.3	105
8	Evaluation of the Accuracy of Cuffless Blood Pressure Measurement Devices: Challenges and Proposals. Hypertension, 2021, 78, 1161-1167.	2.7	88
9	Individualized closed-loop control of propofol anesthesia: A preliminary study. Biomedical Signal Processing and Control, 2013, 8, 500-508.	5.7	78
10	Ballistocardiogram-Based Approach to Cuffless Blood Pressure Monitoring: Proof of Concept and Potential Challenges. IEEE Transactions on Biomedical Engineering, 2018, 65, 2384-2391.	4.2	70
11	Toward Ubiquitous Blood Pressure Monitoring via Pulse Transit Time: Predictions on Maximum Calibration Period and Acceptable Error Limits. IEEE Transactions on Biomedical Engineering, 2018, 65, 1410-1420.	4.2	63
12	PPG Sensor Contact Pressure Should Be Taken Into Account for Cuff-Less Blood Pressure Measurement. IEEE Transactions on Biomedical Engineering, 2020, 67, 3134-3140.	4.2	58
13	Conventional pulse transit times as markers of blood pressure changes in humans. Scientific Reports, 2020, 10, 16373.	3.3	49
14	Real-Time Identification of Road-Bank Angle Using Differential GPS. IEEE Transactions on Control Systems Technology, 2004, 12, 589-599.	5.2	46
15	Error Mechanisms of the Oscillometric Fixed-Ratio Blood Pressure Measurement Method. Annals of Biomedical Engineering, 2013, 41, 587-597.	2.5	46
16	Patient-Specific Oscillometric Blood Pressure Measurement. IEEE Transactions on Biomedical Engineering, 2016, 63, 1220-1228.	4.2	43
17	Formulas to Explain Popular Oscillometric Blood Pressure Estimation Algorithms. Frontiers in Physiology, 2019, 10, 1415.	2.8	43
18	Nonlinear Robust Control of Torque Converter Clutch Slip System for Passenger Vehicles Using Advanced Torque Estimation Algorithms. Vehicle System Dynamics, 2002, 37, 175-192.	3.7	42

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19	Robust closed-loop control of hypnosis with propofol using WAVCNS index as the controlled variable. Biomedical Signal Processing and Control, 2012, 7, 517-524.	5.7	39
20	A Direct Dynamic Dose-Response Model of Propofol for Individualized Anesthesia Care. IEEE Transactions on Biomedical Engineering, 2012, 59, 571-578.	4.2	35
21	Subject-Specific Estimation of Central Aortic Blood Pressure Using an Individualized Transfer Function: A Preliminary Feasibility Study. IEEE Transactions on Information Technology in Biomedicine, 2012, 16, 212-220.	3.2	35
22	Photoplethysmography Fast Upstroke Time Intervals Can Be Useful Features for Cuff-Less Measurement of Blood Pressure Changes in Humans. IEEE Transactions on Biomedical Engineering, 2022, 69, 53-62.	4.2	30
23	Smooth shift control of automatic transmissions using a robust adaptive scheme with intelligent supervision. International Journal of Vehicle Design, 2003, 32, 250.	0.3	29
24	Development and In Silico Evaluation of a Model-Based Closed-Loop Fluid Resuscitation Control Algorithm. IEEE Transactions on Biomedical Engineering, 2019, 66, 1905-1914.	4.2	28
25	Tube-Load Model Parameter Estimation for Monitoring Arterial Hemodynamics. Frontiers in Physiology, 2011, 2, 72.	2.8	27
26	Control-oriented physiological modeling of hemodynamic responses to blood volume perturbation. Control Engineering Practice, 2018, 73, 149-160.	5.5	27
27	Estimation of pulse transit time using two diametric blood pressure waveform measurements. Medical Engineering and Physics, 2010, 32, 753-759.	1.7	25
28	Unobtrusive Estimation of Cardiovascular Parameters with Limb Ballistocardiography. Sensors, 2019, 19, 2922.	3.8	25
29	The Potential of Wearable Limb Ballistocardiogram in Blood Pressure Monitoring via Pulse Transit Time. Scientific Reports, 2019, 9, 10666.	3.3	25
30	Estimation of cardiac output and peripheral resistance using square-wave-approximated aortic flow signal. Frontiers in Physiology, 2012, 3, 298.	2.8	24
31	Hypotension in ICU Patients Receiving Vasopressor Therapy. Scientific Reports, 2017, 7, 8551.	3.3	24
32	Enabling the assessment of trauma-induced hemorrhage via smart wearable systems. Science Advances, 2020, 6, eabb1708.	10.3	24
33	Closed-Loop Anesthetic Drug Concentration Estimation Using Clinical-Effect Feedback. IEEE Transactions on Biomedical Engineering, 2011, 58, 3-6.	4.2	23
34	Patient-Specific Oscillometric Blood Pressure Measurement: Validation for Accuracy and Repeatability. IEEE Journal of Translational Engineering in Health and Medicine, 2017, 5, 1-10.	3.7	23
35	Vehicle lateral stability management using gain-scheduled robust control. Journal of Mechanical Science and Technology, 2006, 20, 1898-1913.	1.5	22
36	Estimation of Cardiovascular Risk Predictors from Non-Invasively Measured Diametric Pulse Volume Waveforms via Multiple Measurement Information Fusion. Scientific Reports, 2018, 8, 10433.	3.3	22

#	Article	IF	CITATIONS
37	Physiological Association between Limb Ballistocardiogram and Arterial Blood Pressure Waveforms: A Mathematical Model-Based Analysis. Scientific Reports, 2019, 9, 5146.	3.3	21
38	Pulse Transit Time-Pulse Wave Analysis Fusion Based on Wearable Wrist Ballistocardiogram for Cuff-Less Blood Pressure Trend Tracking. IEEE Access, 2020, 8, 138077-138087.	4.2	21
39	Subject-specific estimation of central aortic blood pressure via system identification: preliminary in-human experimental study. Medical and Biological Engineering and Computing, 2014, 52, 895-904.	2.8	20
40	A Lumped-Parameter Subject-Specific Model of Blood Volume Response to Fluid Infusion. Frontiers in Physiology, 2016, 7, 390.	2.8	20
41	Modeling and control of a hydraulic unit for direct yaw moment control in an automobile. Control Engineering Practice, 2006, 14, 1011-1022.	5.5	19
42	Blind Identification of Two-Channel IIR Systems With Application to Central Cardiovascular Monitoring. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2009, 131, .	1.6	19
43	Comparative Study on Tube-Load Modeling of Arterial Hemodynamics in Humans. Journal of Biomechanical Engineering, 2013, 135, 31005.	1.3	19
44	Modeling and 2-sensor blind identification of human cardiovascular system. Control Engineering Practice, 2009, 17, 1318-1328.	5.5	18
45	Relationship between Stroke Volume and Pulse Pressure during Blood Volume Perturbation: A Mathematical Analysis. BioMed Research International, 2014, 2014, 1-10.	1.9	17
46	Pulse arrival time, a novel sleep cardiovascular marker: the multi-ethnic study of atherosclerosis. Thorax, 2021, 76, thoraxjnl-2020-216399.	5.6	16
47	Quantification of Wave Reflection Using Peripheral Blood Pressure Waveforms. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 309-316.	6.3	15
48	Data mining investigation of the association between a limb ballistocardiogram and blood pressure. Physiological Measurement, 2018, 39, 075009.	2.1	15
49	Individualized Estimation of the Central Aortic Blood Pressure Waveform: A Comparative Study. IEEE Journal of Biomedical and Health Informatics, 2014, 18, 215-221.	6.3	14
50	The role of tactile sensation in online and offline hierarchical control of multi-finger force synergy. Experimental Brain Research, 2015, 233, 2539-2548.	1.5	14
51	A semiâ€∎daptive control approach to closedâ€loop medication infusion. International Journal of Adaptive Control and Signal Processing, 2017, 31, 240-254.	4.1	14
52	Model-based cardiovascular disease diagnosis: a preliminary in-silico study. Biomechanics and Modeling in Mechanobiology, 2017, 16, 549-560.	2.8	13
53	Evaluation of Fluid Resuscitation Control Algorithms via a Hardware-in-the-Loop Test Bed. IEEE Transactions on Biomedical Engineering, 2020, 67, 471-481.	4.2	13
54	Detection and Severity Assessment of Peripheral Occlusive Artery Disease via Deep Learning Analysis of Arterial Pulse Waveforms: Proof-of-Concept and Potential Challenges. Frontiers in Bioengineering and Biotechnology, 2020, 8, 720.	4.1	13

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55	Individualized PID control of depth of anesthesia based on patient model identification during the induction phase of anesthesia. , 2011, , .		12
56	System Identification and Closed-Loop Control of End-Tidal CO <formula formulatype="inline"><tex Notation="TeX">\$_{f 2}\$</tex </formula> in Mechanically Ventilated Patients. IEEE Transactions on Information Technology in Biomedicine, 2012, 16, 1176-1184.	3.2	12
57	Closed-Loop Fluid Resuscitation Control Via Blood Volume Estimation. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2016, 138, .	1.6	12
58	Central Blood Pressure Monitoring via a Standard Automatic Arm Cuff. Scientific Reports, 2017, 7, 14441.	3.3	12
59	Mitigation of Instrument-Dependent Variability in Ballistocardiogram Morphology: Case Study on Force Plate and Customized Weighing Scale. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 69-78.	6.3	12
60	Twoâ€stage vs mixedâ€effect approach to pharmacodynamic modeling of propofol in children using state entropy. Paediatric Anaesthesia, 2011, 21, 691-698.	1.1	11
61	Model-based fault detection and isolation in automotive yaw moment control system. International Journal of Automotive Technology, 2017, 18, 405-416.	1.4	11
62	Practical Use of Regularization in Individualizing a Mathematical Model of Cardiovascular Hemodynamics Using Scarce Data. Frontiers in Physiology, 2020, 11, 452.	2.8	11
63	Robust observer-based monitoring of a hydraulic actuator in a vehicle power transmission control system. Control Engineering Practice, 2002, 10, 327-335.	5.5	10
64	Data-Driven Lossy Tube-Load Modeling of Arterial Tree: In-Human Study. Journal of Biomechanical Engineering, 2014, 136, 101011.	1.3	10
65	Investigation of Viscoelasticity in the Relationship Between Carotid Artery Blood Pressure and Distal Pulse Volume Waveforms. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 460-470.	6.3	10
66	Commentary: Relation Between Blood Pressure and Pulse Wave Velocity for Human Arteries. Frontiers in Physiology, 2019, 10, 1179.	2.8	10
67	A Unified Approach to Wearable Ballistocardiogram Gating and Wave Localization. IEEE Transactions on Biomedical Engineering, 2021, 68, 1115-1122.	4.2	10
68	Identification of Multichannel Cardiovascular Dynamics Using Dual Laguerre Basis Functions for Noninvasive Cardiovascular Monitoring. IEEE Transactions on Control Systems Technology, 2010, 18, 170-176.	5.2	9
69	Unifying the Estimation of Blood Volume Decompensation Status in a Porcine Model of Relative and Absolute Hypovolemia Via Wearable Sensing. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 3351-3360.	6.3	9
70	Model-Based Blind System Identification Approach to Estimation of Central Aortic Blood Pressure Waveform From Noninvasive Diametric Circulatory Signals. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2017, 139, .	1.6	8
71	Collective Variational Inference for Personalized and Generative Physiological Modeling: A Case Study on Hemorrhage Resuscitation. IEEE Transactions on Biomedical Engineering, 2022, 69, 666-677.	4.2	8
72	Posture-Dependent Variability in Wrist Ballistocardiogram-Photoplethysmogram Pulse Transit Time: Implication to Cuff-Less Blood Pressure Tracking. IEEE Transactions on Biomedical Engineering, 2022, 69, 347-355.	4.2	8

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JIN-OH HAHN

6

Biomedical Engineering, 2014, 61, 1196-1207.

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91	In-human subject-specific evaluation of a control-theoretic plasma volume regulation model. Computers in Biology and Medicine, 2017, 91, 96-102.	7.0	4
92	Coordinated semiâ€adaptive closedâ€loop control for infusion of two interacting medications. International Journal of Adaptive Control and Signal Processing, 2018, 32, 134-146.	4.1	4
93	Semiadaptive Infusion Control of Medications With Excitatory Dose-Dependent Effects. IEEE Transactions on Control Systems Technology, 2019, 27, 1735-1743.	5.2	4
94	Mathematical Modeling, In-Human Evaluation and Analysis of Volume Kinetics and Kidney Function After Burn Injury and Resuscitation. IEEE Transactions on Biomedical Engineering, 2022, 69, 366-376.	4.2	4
95	Assessment of Calibration Models for Cuff-Less Blood Pressure Measurement After One Year of Aging. IEEE Transactions on Biomedical Engineering, 2022, 69, 2087-2093.	4.2	4
96	Classification of Blood Volume Decompensation State via Machine Learning Analysis of Multi-Modal Wearable-Compatible Physiological Signals. Sensors, 2022, 22, 1336.	3.8	4
97	Pharmacodynamic modeling of propofol-induced tidal volume depression in children. Journal of Clinical Monitoring and Computing, 2011, 25, 275-284.	1.6	3
98	A Regularized System Identification Approach to Subject-Specific Physiological Modeling with Limited Data. , 2019, , .		3
99	Accuracy assessment methods for physiological model selection toward evaluation of closed-loop controlled medical devices. PLoS ONE, 2021, 16, e0251001.	2.5	3
100	Closed-Loop Fuzzy Energy Regulation in Patients With Hypercortisolism via Inhibitory and Excitatory Intermittent Actuation. Frontiers in Neuroscience, 2021, 15, 695975.	2.8	3
101	Credibility Assessment of a Subject-Specific Mathematical Model of Blood Volume Kinetics for Prediction of Physiological Response to Hemorrhagic Shock and Fluid Resuscitation. Frontiers in Physiology, 2021, 12, 705222.	2.8	3
102	Hemodynamic Monitoring via Model-Based Extended Kalman Filtering: Hemorrhage Resuscitation and Sedation Case Study. , 2022, 6, 2455-2460.		3
103	Recurrent-neural-network-based identification of a cascade hydraulic actuator for closed-loop automotive power transmission control. Journal of Mechanical Science and Technology, 2012, 26, 1599-1606.	1.5	2
104	Active Non-Intrusive System Identification for Cardiovascular Monitoring: Part II — Development of System Identifiction Algorithm. , 2013, , .		2
105	Semi-adaptive feedback control of opioid infusion. , 2016, , .		2
106	Observer Design and Analysis for Non-Invasive Hemorrhage Detection. IFAC-PapersOnLine, 2021, 54, 310-315.	0.9	2
107	A new approach to reconstruction of central aortic blood pressure using $\hat{a} \in \hat{a}$ adaptive $\hat{a} \in \hat{b}$ transfer function. , 2008, 2008, 813-6.		1
108	Robust closed-loop control of propofol administration using WAVCNS index as the controlled		1

variable. , 2010, 2010, 6038-41.

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109	Data-driven modeling of pharmacological systems using endpoint information fusion. Computers in Biology and Medicine, 2015, 61, 36-47.	7.0	1
110	A Real-Time Hardware-In-The-Loop Testing Platform for Closed-Loop Fluid Resuscitation. , 2018, , .		1
111	Inference-based subject atypicality and signal quality indicators for physiological data. , 2021, , .		1
112	Observer-Based Deconvolution of Deterministic Input in Coprime Multichannel Systems With Its Application to Noninvasive Central Blood Pressure Monitoring. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2020, 142, 091006.	1.6	1
113	Inter-Personal Motor Synergy: Co-working Strategy Depends on Task Constraints. Journal of Neurophysiology, 2021, 126, 1698-1709.	1.8	1
114	Exo-Abs: A Wearable Robotic System Inspired by Human Abdominal Muscles for Noninvasive and Effort-Synchronized Respiratory Assistance. IEEE Transactions on Robotics, 2022, 38, 2994-3014.	10.3	1
115	The Potential of Arterial Pulse Wave Analysis in Burn Resuscitation: A Pilot In Vivo Study. Journal of Burn Care and Research, 2023, 44, 599-609.	0.4	1
116	Modeling and control of a hydraulic unit for direct yaw moment control in an automobile. , 2004, , .		0
117	An empirical model of end-tidal CO <inf>2</inf> response to minute ventilation. , 2010, 2010, 524-7.		0
118	Subject-specific estimation of aortic blood pressure via system identification: Preliminary in-human experimental study. , 2013, , .		0
119	Data-driven modeling of arterial wave propagation using non-invasive arterial pulse waveforms. , 2015, , .		0
120	Estimation of Central Aortic Blood Pressure From Non-Invasive Cuff Pressure Oscillation Signals via System Identification. , 2016, , .		0
121	Coordinated and Semi-Adaptive Cardiorespiratory Control via Sedative and Opioid Drugs. , 2017, , .		0
122	Semi-Adaptive Closed-Loop Control for Infusion of Medications With Transport Delay in Clinical Effects. Journal of Computational and Nonlinear Dynamics, 2019, 14, .	1.2	0
123	Abstract 19755: A More Accurate Automatic Cuff Blood Pressure Measurement Method. Circulation, 2015, 132, .	1.6	0