

Geoff Chase

List of Publications by Year in descending order

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Version: 2024-02-01

611
papers

11,711
citations

36303

51
h-index

62596

80
g-index

614
all docs

614
docs citations

614
times ranked

5706
citing authors

#	ARTICLE	IF	CITATIONS
1	Neonatal Glycemia and Neurodevelopmental Outcomes at 2 Years. <i>New England Journal of Medicine</i> , 2015, 373, 1507-1518.	27.0	275
2	Association of Neonatal Glycemia With Neurodevelopmental Outcomes at 4.5 Years. <i>JAMA Pediatrics</i> , 2017, 171, 972.	6.2	260
3	Dextrose gel for neonatal hypoglycaemia (the Sugar Babies Study): a randomised, double-blind, placebo-controlled trial. <i>Lancet, The</i> , 2013, 382, 2077-2083.	13.7	228
4	Implementation and evaluation of the SPRINT protocol for tight glycaemic control in critically ill patients: a clinical practice change. <i>Critical Care</i> , 2008, 12, R49.	5.8	222
5	Human-Robot Collaboration: A Literature Review and Augmented Reality Approach in Design. <i>International Journal of Advanced Robotic Systems</i> , 2008, 5, 1.	2.1	212
6	Integral-based parameter identification for long-term dynamic verification of a glucose-insulin system model. <i>Computer Methods and Programs in Biomedicine</i> , 2005, 77, 259-270.	4.7	211
7	Ascorbate-dependent vasopressor synthesis: a rationale for vitamin C administration in severe sepsis and septic shock?. <i>Critical Care</i> , 2015, 19, 418.	5.8	191
8	A physiological Intensive Control Insulin-Nutrition-Glucose (ICING) model validated in critically ill patients. <i>Computer Methods and Programs in Biomedicine</i> , 2011, 102, 192-205.	4.7	169
9	Next-generation, personalised, model-based critical care medicine: a state-of-the art review of in silico virtual patient models, methods, and cohorts, and how to validation them. <i>BioMedical Engineering OnLine</i> , 2018, 17, 24.	2.7	143
10	Stochastic modelling of insulin sensitivity and adaptive glycaemic control for critical care. <i>Computer Methods and Programs in Biomedicine</i> , 2008, 89, 141-152.	4.7	130
11	3D models of blood flow in the cerebral vasculature. <i>Journal of Biomechanics</i> , 2006, 39, 1454-1463.	2.1	115
12	Model-based PEEP optimisation in mechanical ventilation. <i>BioMedical Engineering OnLine</i> , 2011, 10, 111.	2.7	115
13	Minimal haemodynamic system model including ventricular interaction and valve dynamics. <i>Medical Engineering and Physics</i> , 2004, 26, 131-139.	1.7	112
14	Tight glycaemic control in critical care – The leading role of insulin sensitivity and patient variability: A review and model-based analysis. <i>Computer Methods and Programs in Biomedicine</i> , 2011, 102, 156-171.	4.7	111
15	Organ failure and tight glycaemic control in the SPRINT study. <i>Critical Care</i> , 2010, 14, R154.	5.8	109
16	A Simple Insulin-Nutrition Protocol for Tight Glycaemic Control in Critical Illness: Development and Protocol Comparison. <i>Diabetes Technology and Therapeutics</i> , 2006, 8, 191-206.	4.4	102
17	STAR Development and Protocol Comparison. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 3357-3364.	4.2	101
18	Model-based glycaemic control in critical care – A review of the state of the possible. <i>Biomedical Signal Processing and Control</i> , 2006, 1, 3-21.	5.7	98

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19	Continuous glucose monitoring in the ICU: clinical considerations and consensus. <i>Critical Care</i> , 2017, 21, 197.	5.8	96
20	Stochastic Targeted (STAR) Glycemic Control: Design, Safety, and Performance. <i>Journal of Diabetes Science and Technology</i> , 2012, 6, 102-115.	2.2	95
21	Safety, efficacy and clinical generalization of the STAR protocol: a retrospective analysis. <i>Annals of Intensive Care</i> , 2016, 6, 24.	4.6	94
22	AC electric field induced dipole-based on-chip 3D cell rotation. <i>Lab on A Chip</i> , 2014, 14, 2717-2727.	6.0	91
23	Validation of a model-based virtual trials method for tight glycemic control in intensive care. <i>BioMedical Engineering OnLine</i> , 2010, 9, 84.	2.7	90
24	A graphical method for practical and informative identifiability analyses of physiological models: A case study of insulin kinetics and sensitivity. <i>BioMedical Engineering OnLine</i> , 2011, 10, 39.	2.7	90
25	Outcome at 2 Years after Dextrose Gel Treatment for Neonatal Hypoglycemia: Follow-Up of a Randomized Trial. <i>Journal of Pediatrics</i> , 2016, 170, 54-59.e2.	1.8	90
26	A Pilot Study of the SPRINT Protocol for Tight Glycemic Control in Critically Ill Patients. <i>Diabetes Technology and Therapeutics</i> , 2006, 8, 449-462.	4.4	85
27	Fast normalized cross correlation for motion tracking using basis functions. <i>Computer Methods and Programs in Biomedicine</i> , 2006, 82, 144-156.	4.7	78
28	Stochastic modelling of insulin sensitivity variability in critical care. <i>Biomedical Signal Processing and Control</i> , 2006, 1, 229-242.	5.7	77
29	Post-intensive care syndrome after a critical COVID-19: cohort study from a Belgian follow-up clinic. <i>Annals of Intensive Care</i> , 2021, 11, 118.	4.6	77
30	Adaptive bolus-based targeted glucose regulation of hyperglycaemia in critical care. <i>Medical Engineering and Physics</i> , 2005, 27, 1-11.	1.7	76
31	Variability of insulin sensitivity during the first 4% days of critical illness: implications for tight glycemic control. <i>Annals of Intensive Care</i> , 2012, 2, 17.	4.6	75
32	Insulin Units and Conversion Factors: A Story of Truth, Boots, and Faster Half-Truths. <i>Journal of Diabetes Science and Technology</i> , 2019, 13, 597-600.	2.2	74
33	Pilot proof of concept clinical trials of Stochastic Targeted (STAR) glycemic control. <i>Annals of Intensive Care</i> , 2011, 1, 38.	4.6	73
34	Performance of a damage-protected beam-column subassembly utilizing external HF2V energy dissipation devices. <i>Earthquake Engineering and Structural Dynamics</i> , 2008, 37, 1549-1564.	4.4	72
35	A Novel, Model-Based Insulin and Nutrition Delivery Controller for Glycemic Regulation in Critically Ill Patients. <i>Diabetes Technology and Therapeutics</i> , 2006, 8, 174-190.	4.4	71
36	Model-Based Insulin and Nutrition Administration for Tight Glycaemic Control in Critical Care. <i>Current Drug Delivery</i> , 2007, 4, 283-296.	1.6	71

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37	High-Force-to-Volume Seismic Dissipators Embedded in a Jointed Precast Concrete Frame. <i>Journal of Structural Engineering</i> , 2012, 138, 375-386.	3.4	69
38	A Glycemia Risk Index (GRI) of Hypoglycemia and Hyperglycemia for Continuous Glucose Monitoring Validated by Clinician Ratings. <i>Journal of Diabetes Science and Technology</i> , 2023, 17, 1226-1242.	2.2	69
39	Time-Varying Respiratory System Elastance: A Physiological Model for Patients Who Are Spontaneously Breathing. <i>PLoS ONE</i> , 2015, 10, e0114847.	2.5	66
40	Characterisation of the iterative integral parameter identification method. <i>Medical and Biological Engineering and Computing</i> , 2012, 50, 127-134.	2.8	65
41	Damage Avoidance Design Steel Beam-Column Moment Connection Using High-Force-to-Volume Dissipators. <i>Journal of Structural Engineering</i> , 2009, 135, 1390-1397.	3.4	64
42	Glucose Control in the ICU. <i>Journal of Diabetes Science and Technology</i> , 2016, 10, 1372-1381.	2.2	64
43	Model predictive glycaemic regulation in critical illness using insulin and nutrition input: A pilot study. <i>Medical Engineering and Physics</i> , 2006, 28, 665-681.	1.7	63
44	Monte Carlo analysis of a new model-based method for insulin sensitivity testing. <i>Computer Methods and Programs in Biomedicine</i> , 2008, 89, 215-225.	4.7	60
45	Blood Glucose Prediction Using Stochastic Modeling in Neonatal Intensive Care. <i>IEEE Transactions on Biomedical Engineering</i> , 2010, 57, 509-518.	4.2	60
46	Untangling glycaemia and mortality in critical care. <i>Critical Care</i> , 2017, 21, 152.	5.8	58
47	Glycemic Levels in Critically Ill Patients: Are Normoglycemia and Low Variability Associated with Improved Outcomes?. <i>Journal of Diabetes Science and Technology</i> , 2012, 6, 1030-1037.	2.2	57
48	Impact of Human Factors on Clinical Protocol Performance: A Proposed Assessment Framework and Case Examples. <i>Journal of Diabetes Science and Technology</i> , 2008, 2, 409-416.	2.2	56
49	A minimal model of lung mechanics and model-based markers for optimizing ventilator treatment in ARDS patients. <i>Computer Methods and Programs in Biomedicine</i> , 2009, 95, 166-180.	4.7	56
50	Physiological modeling, tight glycemic control, and the ICU clinician: what are models and how can they affect practice?. <i>Annals of Intensive Care</i> , 2011, 1, 11.	4.6	56
51	Positive end expiratory pressure in patients with acute respiratory distress syndrome – The past, present and future. <i>Biomedical Signal Processing and Control</i> , 2012, 7, 93-103.	5.7	55
52	Model-based optimal PEEP in mechanically ventilated ARDS patients in the Intensive Care Unit. <i>BioMedical Engineering OnLine</i> , 2011, 10, 64.	2.7	53
53	The dynamic insulin sensitivity and secretion test – a novel measure of insulin sensitivity. <i>Metabolism: Clinical and Experimental</i> , 2011, 60, 1748-1756.	3.4	52
54	One-Dimensional and Three-Dimensional Models of Cerebrovascular Flow. <i>Journal of Biomechanical Engineering</i> , 2005, 127, 440-449.	1.3	51

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55	Targeted Glycemic Reduction in Critical Care Using Closed-Loop Control. <i>Diabetes Technology and Therapeutics</i> , 2005, 7, 274-282.	4.4	51
56	Blood Glucose Controller for Neonatal Intensive Care: Virtual Trials Development and First Clinical Trials. <i>Journal of Diabetes Science and Technology</i> , 2009, 3, 1066-1081.	2.2	51
57	What Makes Tight Glycemic Control Tight? The Impact of Variability and Nutrition in Two Clinical Studies. <i>Journal of Diabetes Science and Technology</i> , 2010, 4, 284-298.	2.2	51
58	Probabilistic evaluation of soilâ€‘foundationâ€‘structure interaction effects on seismic structural response. <i>Earthquake Engineering and Structural Dynamics</i> , 2011, 40, 135-154.	4.4	51
59	Continuous glucose monitoring in neonates: a review. <i>Maternal Health, Neonatology and Perinatology</i> , 2017, 3, 18.	2.2	49
60	Improvements in Glucose Metabolism and Insulin Sensitivity with a Low-Carbohydrate Diet in Obese Patients with Type 2 Diabetes. <i>Journal of the American College of Nutrition</i> , 2013, 32, 11-17.	1.8	48
61	Re-shaping hysteretic behaviour using semi-active resettable device dampers. <i>Engineering Structures</i> , 2006, 28, 1418-1429.	5.3	46
62	Model-based cardiac diagnosis of pulmonary embolism. <i>Computer Methods and Programs in Biomedicine</i> , 2007, 87, 46-60.	4.7	46
63	Design and Clinical Pilot Testing of the Model-Based Dynamic Insulin Sensitivity and Secretion Test (DISST). <i>Journal of Diabetes Science and Technology</i> , 2010, 4, 1408-1423.	2.2	46
64	Structural Identifiability and Practical Applicability of an Alveolar Recruitment Model for ARDS Patients. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 3396-3404.	4.2	46
65	Feasibility of titrating PEEP to minimum elastance for mechanically ventilated patients. <i>Pilot and Feasibility Studies</i> , 2015, 1, 9.	1.2	46
66	Generalisability of a Virtual Trials Method for Glycaemic Control in Intensive Care. <i>IEEE Transactions on Biomedical Engineering</i> , 2018, 65, 1543-1553.	4.2	46
67	Simulation of cardiovascular system diseases by including the autonomic nervous system into a minimal model. <i>Computer Methods and Programs in Biomedicine</i> , 2007, 86, 153-160.	4.7	45
68	Biomedical engineerâ€™s guide to the clinical aspects of intensive care mechanical ventilation. <i>BioMedical Engineering OnLine</i> , 2018, 17, 169.	2.7	45
69	Transient and Steady-State Euglycemic Clamp Validation of a Model for Glycemic Control and Insulin Sensitivity Testing. <i>Diabetes Technology and Therapeutics</i> , 2006, 8, 338-346.	4.4	44
70	Integral-based filtering of continuous glucose sensor measurements for glycaemic control in critical care. <i>Computer Methods and Programs in Biomedicine</i> , 2006, 82, 238-247.	4.7	44
71	Point: HOMA Satisfactory for the Time Being: HOMA: The best bet for the simple determination of insulin sensitivity, until something better comes along. <i>Diabetes Care</i> , 2007, 30, 2411-2413.	8.6	44
72	Pilot study of a model-based approach to blood glucose control in very-low-birthweight neonates. <i>BMC Pediatrics</i> , 2012, 12, 117.	1.7	44

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73	Virtual patients for mechanical ventilation in the intensive care unit. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 199, 105912.	4.7	43
74	Quantifying agitation in sedated ICU patients using digital imaging. <i>Computer Methods and Programs in Biomedicine</i> , 2004, 76, 131-141.	4.7	42
75	Improving glycemic control in critically ill patients: personalized care to mimic the endocrine pancreas. <i>Critical Care</i> , 2018, 22, 182.	5.8	42
76	Active insulin infusion using optimal and derivative-weighted control. <i>Medical Engineering and Physics</i> , 2002, 24, 663-672.	1.7	41
77	Glucose control positively influences patient outcome: A retrospective study. <i>Journal of Critical Care</i> , 2015, 30, 455-459.	2.2	41
78	Predictive Virtual Patient Modelling of Mechanical Ventilation: Impact of Recruitment Function. <i>Annals of Biomedical Engineering</i> , 2019, 47, 1626-1641.	2.5	41
79	Towards Point-of-Care Insulin Detection. <i>ACS Sensors</i> , 2019, 4, 3-19.	7.8	41
80	Expiratory model-based method to monitor ARDS disease state. <i>BioMedical Engineering OnLine</i> , 2013, 12, 57.	2.7	40
81	The clinical utility window for acute kidney injury biomarkers in the critically ill. <i>Critical Care</i> , 2014, 18, 601.	5.8	40
82	Does the achievement of an intermediate glycemic target reduce organ failure and mortality? A post hoc analysis of the Glucontrol trial. <i>Journal of Critical Care</i> , 2014, 29, 374-379.	2.2	40
83	Integral-based identification of patient specific parameters for a minimal cardiac model. <i>Computer Methods and Programs in Biomedicine</i> , 2006, 81, 181-192.	4.7	39
84	Visualisation of time-varying respiratory system elastance in experimental ARDS animal models. <i>BMC Pulmonary Medicine</i> , 2014, 14, 33.	2.0	39
85	Resettable smart dampers for multi-level seismic hazard mitigation of steel moment frames. <i>Structural Control and Health Monitoring</i> , 2003, 10, 41-58.	0.5	37
86	Physical parameter identification of nonlinear base-isolated buildings using seismic response data. <i>Computers and Structures</i> , 2014, 145, 47-57.	4.4	37
87	Physical Parameter Identification of Structural Systems with Hysteretic Pinching. <i>Computer-Aided Civil and Infrastructure Engineering</i> , 2015, 30, 247-262.	9.8	37
88	DISTq: An Iterative Analysis of Glucose Data for Low-Cost, Real-Time and Accurate Estimation of Insulin Sensitivity. <i>Open Medical Informatics Journal</i> , 2009, 3, 65-76.	1.0	37
89	Alcohol in breath and blood: a selected ion flow tube mass spectrometric study. <i>Rapid Communications in Mass Spectrometry</i> , 2001, 15, 413-417.	1.5	36
90	Continuous Glucose Monitors and the Burden of Tight Glycemic Control in Critical Care: Can They Cure the Time Cost?. <i>Journal of Diabetes Science and Technology</i> , 2010, 4, 625-635.	2.2	35

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91	Validation of subject-specific cardiovascular system models from porcine measurements. <i>Computer Methods and Programs in Biomedicine</i> , 2013, 109, 197-210.	4.7	35
92	Assessing mechanical ventilation asynchrony through iterative airway pressure reconstruction. <i>Computer Methods and Programs in Biomedicine</i> , 2018, 157, 217-224.	4.7	35
93	Spectral analysis and design approach for high force-to-volume extrusion damper-based structural energy dissipation. <i>Earthquake Engineering and Structural Dynamics</i> , 2008, 37, 207-223.	4.4	34
94	Model-based identification and diagnosis of a porcine model of induced endotoxic shock with hemofiltration. <i>Mathematical Biosciences</i> , 2008, 216, 132-139.	1.9	34
95	A simulation model of insulin saturation and glucose balance for glycemic control in ICU patients. <i>Computer Methods and Programs in Biomedicine</i> , 2010, 97, 211-222.	4.7	34
96	Unique parameter identification for cardiac diagnosis in critical care using minimal data sets. <i>Computer Methods and Programs in Biomedicine</i> , 2010, 99, 75-87.	4.7	34
97	Innovative seismic retrofitting strategy of added stories isolation system. <i>Frontiers of Structural and Civil Engineering</i> , 2013, 7, 13-23.	2.9	34
98	Digital Image-Based Elasto-Tomography: Proof of Concept Studies for Surface Based Mechanical Property Reconstruction. <i>JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing</i> , 2004, 47, 1117-1123.	0.3	33
99	A Subcutaneous Insulin Pharmacokinetic Model for Computer Simulation in a Diabetes Decision Support Role: Model Structure and Parameter Identification. <i>Journal of Diabetes Science and Technology</i> , 2008, 2, 658-671.	2.2	33
100	The Glucosafe system for tight glycemic control in critical care: A pilot evaluation study. <i>Journal of Critical Care</i> , 2010, 25, 97-104.	2.2	33
101	Roadmap for cardiovascular circulation model. <i>Journal of Physiology</i> , 2016, 594, 6909-6928.	2.9	33
102	A Benchmark Data Set for Model-Based Glycemic Control in Critical Care. <i>Journal of Diabetes Science and Technology</i> , 2008, 2, 584-594.	2.2	32
103	Assessing respiratory mechanics using pressure reconstruction method in mechanically ventilated spontaneous breathing patient. <i>Computer Methods and Programs in Biomedicine</i> , 2016, 130, 175-185.	4.7	32
104	Association of Neonatal Hypoglycemia With Academic Performance in Mid-Childhood. <i>JAMA - Journal of the American Medical Association</i> , 2022, 327, 1158.	7.4	32
105	Robust H_{∞} Static Output Feedback Control with Actuator Saturation. <i>Journal of Engineering Mechanics - ASCE</i> , 1999, 125, 225-233.	2.9	30
106	Real-Time System Identification of a Nonlinear Four-Story Steel Frame Structure—Application to Structural Health Monitoring. <i>IEEE Sensors Journal</i> , 2009, 9, 1339-1346.	4.7	30
107	Impact of Retrospective Calibration Algorithms on Hypoglycemia Detection in Newborn Infants Using Continuous Glucose Monitoring. <i>Diabetes Technology and Therapeutics</i> , 2012, 14, 883-890.	4.4	30
108	Experimental testing of damage-resistant rocking glulam walls with lead extrusion dampers. <i>Construction and Building Materials</i> , 2016, 102, 1145-1153.	7.2	30

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109	Glycemic control in the intensive care unit: A control systems perspective. Annual Reviews in Control, 2019, 48, 359-368.	7.9	30
110	MEMS-Based Control of Structural Dynamic Instability. Journal of Intelligent Material Systems and Structures, 1998, 9, 574-586.	2.5	29
111	Efficient structural health monitoring for a benchmark structure using adaptive RLS filters. Computers and Structures, 2005, 83, 639-647.	4.4	29
112	Digital Image Elasto-Tomography: Combinatorial and Hybrid Optimization Algorithms for Shape-Based Elastic Property Reconstruction. IEEE Transactions on Biomedical Engineering, 2008, 55, 2575-2583.	4.2	29
113	Mathematical multi-scale model of the cardiovascular system including mitral valve dynamics. Application to ischemic mitral insufficiency. BioMedical Engineering OnLine, 2011, 10, 86.	2.7	29
114	Iterative integral parameter identification of a respiratory mechanics model. BioMedical Engineering OnLine, 2012, 11, 38.	2.7	29
115	A simple LMS-based approach to the structural health monitoring benchmark problem. Earthquake Engineering and Structural Dynamics, 2005, 34, 575-594.	4.4	28
116	Re-shaping hysteretic behaviour's spectral analysis and design equations for semi-active structures. Earthquake Engineering and Structural Dynamics, 2007, 36, 77-100.	4.4	28
117	Model-Based Insulin Sensitivity as a Sepsis Diagnostic in Critical Care. Journal of Diabetes Science and Technology, 2008, 2, 468-477.	2.2	28
118	Simulation of Left Atrial Function Using a Multi-Scale Model of the Cardiovascular System. PLoS ONE, 2013, 8, e65146.	2.5	28
119	Experimentally verified minimal cardiovascular system model for rapid diagnostic assistance. Control Engineering Practice, 2005, 13, 1183-1193.	5.5	27
120	Beyond Ductility: Parametric Testing of a Jointed Rocking Beam-Column Connection Designed for Damage Avoidance. Journal of Structural Engineering, 2016, 142, .	3.4	27
121	Comparing model-based adaptive LMS filters and a model-free hysteresis loop analysis method for structural health monitoring. Mechanical Systems and Signal Processing, 2017, 84, 384-398.	8.0	27
122	Degradation evaluation of lateral story stiffness using HLA-based deep learning networks. Advanced Engineering Informatics, 2019, 39, 259-268.	8.0	27
123	Outcome Improvement Between the First Two Waves of the Coronavirus Disease 2019 Pandemic in a Single Tertiary-Care Hospital in Belgium. , 2021, 3, e0438.		27
124	Robust H ∞ Control Considering Actuator Saturation. I: Theory. Journal of Engineering Mechanics - ASCE, 1996, 122, 976-983.	2.9	26
125	Semi-active tuned mass damper building systems: Design. Earthquake Engineering and Structural Dynamics, 2010, 39, 119-139.	4.4	26
126	Evaluation of model-based methods in estimating respiratory mechanics in the presence of variable patient effort. Computer Methods and Programs in Biomedicine, 2019, 171, 67-79.	4.7	26

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127	Support vector machines for automated modelling of nonlinear structures using health monitoring results. <i>Mechanical Systems and Signal Processing</i> , 2021, 149, 107201.	8.0	26
128	Experimental development, tradeoff analysis and design implementation of high force-to-volume damping technology. <i>Bulletin of the New Zealand Society for Earthquake Engineering</i> , 2007, 40, 35-48.	0.5	26
129	Optimal stabilization of plate buckling. <i>Smart Materials and Structures</i> , 1999, 8, 204-211.	3.5	25
130	Digital Image-Based Elasto-Tomography: First Experiments in Surface Based Mechanical Property Estimation of Gelatine Phantoms. <i>JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing</i> , 2005, 48, 562-569.	0.3	25
131	A Subcutaneous Insulin Pharmacokinetic Model for Computer Simulation in a Diabetes Decision Support Role: Validation and Simulation. <i>Journal of Diabetes Science and Technology</i> , 2008, 2, 672-680.	2.2	25
132	First pilot trial of the STAR-Liege protocol for tight glycemic control in critically ill patients. <i>Computer Methods and Programs in Biomedicine</i> , 2012, 108, 844-859.	4.7	25
133	NAVA enhances tidal volume and diaphragmatic electro-myographic activity matching: a Range90 analysis of supply and demand. <i>Journal of Clinical Monitoring and Computing</i> , 2013, 27, 61-70.	1.6	25
134	Clinical Application of Respiratory Elastance (CARE Trial) for Mechanically Ventilated Respiratory Failure Patients: A Model-based Study. <i>IFAC-PapersOnLine</i> , 2018, 51, 209-214.	0.9	25
135	Lumped Parameter and Feedback Control Models of the Auto-regulatory Response in the Circle of Willis. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2004, 7, 121-130.	1.6	24
136	Efficient implementation of non-linear valve law and ventricular interaction dynamics in the minimal cardiac model. <i>Computer Methods and Programs in Biomedicine</i> , 2005, 80, 65-74.	4.7	24
137	Impact of glucocorticoids on insulin resistance in the critically ill. <i>Computer Methods and Programs in Biomedicine</i> , 2011, 102, 172-180.	4.7	24
138	Reconstructing 3-D Skin Surface Motion for the DIET Breast Cancer Screening System. <i>IEEE Transactions on Medical Imaging</i> , 2014, 33, 1109-1118.	8.9	24
139	Use of basis functions within a non-linear autoregressive model of pulmonary mechanics. <i>Biomedical Signal Processing and Control</i> , 2016, 27, 44-50.	5.7	24
140	Analysing the effects of cold, normal, and warm digits on transmittance pulse oximetry. <i>Biomedical Signal Processing and Control</i> , 2016, 26, 34-41.	5.7	24
141	Optimal Stabilization of Column Buckling. <i>Journal of Engineering Mechanics - ASCE</i> , 1999, 125, 987-993.	2.9	23
142	Quantifying agitation in sedated ICU patients using heart rate and blood pressure. <i>Physiological Measurement</i> , 2004, 25, 1037-1051.	2.1	23
143	Classifying algorithms for SIFT-MS technology and medical diagnosis. <i>Computer Methods and Programs in Biomedicine</i> , 2008, 89, 226-238.	4.7	23
144	Semi-active tuned mass damper building systems: Application. <i>Earthquake Engineering and Structural Dynamics</i> , 2010, 39, 69-89.	4.4	23

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145	Effects of soil–foundation–structure interaction on seismic structural response via robust Monte Carlo simulation. <i>Engineering Structures</i> , 2011, 33, 1338-1347.	5.3	23
146	Silicone breast phantoms for elastographic imaging evaluation. <i>Medical Physics</i> , 2013, 40, 063503.	3.0	23
147	Nutrition delivery of a model-based ICU glycaemic control system. <i>Annals of Intensive Care</i> , 2018, 8, 4.	4.6	23
148	Pre-ejection period, the reason why the electrocardiogram Q-wave is an unreliable indicator of pulse wave initialization. <i>Physiological Measurement</i> , 2018, 39, 095005.	2.1	23
149	Model-based estimation of negative inspiratory driving pressure in patients receiving invasive NAVA mechanical ventilation. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 208, 106300.	4.7	23
150	Continuous Stroke Volume Estimation from Aortic Pressure Using Zero Dimensional Cardiovascular Model: Proof of Concept Study from Porcine Experiments. <i>PLoS ONE</i> , 2014, 9, e102476.	2.5	23
151	Overview of Glycemic Control in Critical Care: Relating Performance and Clinical Results. <i>Journal of Diabetes Science and Technology</i> , 2007, 1, 82-91.	2.2	22
152	Estimating elasticity in heterogeneous phantoms using Digital Image Elasto-Tomography. <i>Medical and Biological Engineering and Computing</i> , 2009, 47, 67-76.	2.8	22
153	Blood Glucose Levels of Subelite Athletes During 6 Days of Free Living. <i>Journal of Diabetes Science and Technology</i> , 2016, 10, 1335-1343.	2.2	22
154	Prediction of lung mechanics throughout recruitment maneuvers in pressure-controlled ventilation. <i>Computer Methods and Programs in Biomedicine</i> , 2020, 197, 105696.	4.7	22
155	Model-based PEEP titration versus standard practice in mechanical ventilation: a randomised controlled trial. <i>Trials</i> , 2020, 21, 130.	1.6	22
156	Robust H _∞ Control Considering Actuator Saturation. II: Applications. <i>Journal of Engineering Mechanics - ASCE</i> , 1996, 122, 984-993.	2.9	21
157	The impact of total acceleration control for semi-active earthquake hazard mitigation. <i>Engineering Structures</i> , 2004, 26, 201-209.	5.3	21
158	LMS-based structural health monitoring of a non-linear rocking structure. <i>Earthquake Engineering and Structural Dynamics</i> , 2005, 34, 909-930.	4.4	21
159	Prediction of hemodynamic changes towards PEEP titrations at different volemic levels using a minimal cardiovascular model. <i>Computer Methods and Programs in Biomedicine</i> , 2008, 91, 128-134.	4.7	21
160	Model-based identification of PEEP titrations during different volemic levels. <i>Computer Methods and Programs in Biomedicine</i> , 2008, 91, 135-144.	4.7	21
161	A Novel Wall Climbing Robot Based on Bernoulli Effect. , 2008, , .		21
162	Development of a model-based clinical sepsis biomarker for critically ill patients. <i>Computer Methods and Programs in Biomedicine</i> , 2011, 102, 149-155.	4.7	21

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163	Independent cohort cross-validation of the real-time DISTq estimation of insulin sensitivity. Computer Methods and Programs in Biomedicine, 2011, 102, 94-104.	4.7	21
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