

Thomas Beltrame

List of Publications by Year in descending order

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Version: 2024-02-01

84
papers

2,349
citations

218677

26
h-index

223800

46
g-index

84
all docs

84
docs citations

84
times ranked

2201
citing authors

#	ARTICLE	IF	CITATIONS
1	Acceleration of $\dot{V}_{E_{TMO_2}}$ kinetics in heavy submaximal exercise by hyperoxia and prior high-intensity exercise. <i>Journal of Applied Physiology</i> , 1997, 83, 1318-1325.	2.5	255
2	Alveolar oxygen uptake and femoral artery blood flow dynamics in upright and supine leg exercise in humans. <i>Journal of Applied Physiology</i> , 1998, 85, 1622-1628.	2.5	162
3	Validation of the Hexoskin wearable vest during lying, sitting, standing, and walking activities. <i>Applied Physiology, Nutrition and Metabolism</i> , 2015, 40, 1019-1024.	1.9	127
4	Regulation of Oxygen Consumption at the Onset of Exercise. <i>Exercise and Sport Sciences Reviews</i> , 2001, 29, 129-133.	3.0	126
5	Effects of pharmacological adrenergic and vagal modulation on fractal heart rate dynamics. <i>Clinical Physiology</i> , 2001, 21, 515-523.	0.7	109
6	Comparison of femoral blood gases and muscle near-infrared spectroscopy at exercise onset in humans. <i>Journal of Applied Physiology</i> , 1999, 86, 687-693.	2.5	90
7	Critical Analysis of Cerebrovascular Autoregulation During Repeated Head-Up Tilt. <i>Stroke</i> , 2001, 32, 2403-2408.	2.0	79
8	Blood flow and muscle oxygen uptake at the onset and end of moderate and heavy dynamic forearm exercise. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2001, 280, R1741-R1747.	1.8	71
9	Exploring cardiorespiratory control mechanisms through gas exchange dynamics. <i>Medicine and Science in Sports and Exercise</i> , 1990, 22, 727-729.	0.4	61
10	Oxygen uptake kinetics: historical perspective and future directions. <i>Applied Physiology, Nutrition and Metabolism</i> , 2009, 34, 840-850.	1.9	60
11	Prior moderate and heavy exercise accelerate oxygen uptake and cardiac output kinetics in endurance athletes. <i>Journal of Applied Physiology</i> , 2009, 106, 1553-1563.	2.5	59
12	Peripheral circulatory factors limit rate of increase in muscle \dot{V}_{O_2} uptake at onset of heavy exercise. <i>Journal of Applied Physiology</i> , 2001, 90, 83-89.	2.5	55
13	Kinetics of ventilation and gas exchange during supine and upright cycle exercise. <i>European Journal of Applied Physiology and Occupational Physiology</i> , 1991, 63, 300-307.	1.2	53
14	Modelflow estimates of cardiac output compared with Doppler ultrasound during acute changes in vascular resistance in women. <i>Experimental Physiology</i> , 2010, 95, 561-568.	2.0	53
15	Autonomic responses to exercise: Deconditioning/inactivity. <i>Autonomic Neuroscience: Basic and Clinical</i> , 2015, 188, 32-35.	2.8	48
16	Effects of an artificial gravity countermeasure on orthostatic tolerance, blood volumes and aerobic power after short-term bed rest (BR-AG1). <i>Journal of Applied Physiology</i> , 2015, 118, 29-35.	2.5	47
17	Effects of aerobic exercise training on variability and heart rate kinetic during submaximal exercise after gastric bypass surgery – a randomized controlled trial. <i>Disability and Rehabilitation</i> , 2013, 35, 334-342.	1.8	41
18	Cerebral Hypoperfusion Is Exaggerated With an Upright Posture in Heart Failure. <i>JACC: Heart Failure</i> , 2015, 3, 168-175.	4.1	41

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19	Sympathetic nervous system activity and cardiovascular homeostasis during head-up tilt in patients with spinal cord injuries. <i>Clinical Autonomic Research</i> , 2000, 10, 207-212.	2.5	40
20	Heart Rate Variability to Monitor Autonomic Nervous System Activity During Orthostatic Stress. <i>Journal of Clinical Pharmacology</i> , 1994, 34, 558-562.	2.0	34
21	Muscular pre-conditioning using light-emitting diode therapy (LEDT) for high-intensity exercise: a randomized double-blind placebo-controlled trial with a single elite runner. <i>Physiotherapy Theory and Practice</i> , 2015, 31, 354-361.	1.3	33
22	Prediction of oxygen uptake dynamics by machine learning analysis of wearable sensors during activities of daily living. <i>Scientific Reports</i> , 2017, 7, 45738.	3.3	33
23	Muscle chemoreflex elevates muscle blood flow and O ₂ uptake at exercise onset in nonischemic human forearm. <i>Journal of Applied Physiology</i> , 2001, 91, 2010-2016.	2.5	31
24	Comparison of a 4-day confinement and head-down tilt on endocrine response and cardiovascular variability in humans. <i>European Journal of Applied Physiology and Occupational Physiology</i> , 1996, 73, 28-37.	1.2	30
25	The effect of citrate loading on exercise performance, acid-base balance and metabolism. <i>European Journal of Applied Physiology and Occupational Physiology</i> , 1989, 58, 858-864.	1.2	29
26	Pet CO ₂ inversely affects MSNA response to orthostatic stress. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2001, 281, H1040-H1046.	3.2	27
27	Estimating oxygen uptake and energy expenditure during treadmill walking by neural network analysis of easy-to-obtain inputs. <i>Journal of Applied Physiology</i> , 2016, 121, 1226-1233.	2.5	26
28	Slower heart rate and oxygen consumption kinetic responses in the on- and off-transient during a discontinuous incremental exercise: effects of aging. <i>Brazilian Journal of Physical Therapy</i> , 2013, 17, 69-76.	2.5	25
29	Relationship between inspiratory muscle capacity and peak exercise tolerance in patients post-myocardial infarction. <i>Heart and Lung: Journal of Acute and Critical Care</i> , 2012, 41, 137-145.	1.6	24
30	Extracting aerobic system dynamics during unsupervised activities of daily living using wearable sensor machine learning models. <i>Journal of Applied Physiology</i> , 2018, 124, 473-481.	2.5	24
31	Relationship between oxygen consumption kinetics and BODE Index in COPD patients. <i>International Journal of COPD</i> , 2012, 7, 711.	2.3	21
32	Sex differences in the oxygen delivery, extraction, and uptake during moderate-walking exercise transition. <i>Applied Physiology, Nutrition and Metabolism</i> , 2017, 42, 994-1000.	1.9	21
33	O ₂ uptake and blood pressure regulation at the onset of exercise: interaction of circadian rhythm and priming exercise. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2010, 299, H1832-H1842.	3.2	20
34	Light-emitting diode therapy (photobiomodulation) effects on oxygen uptake and cardiac output dynamics during moderate exercise transitions: a randomized, crossover, double-blind, and placebo-controlled study. <i>Lasers in Medical Science</i> , 2018, 33, 1065-1071.	2.1	19
35	CHANGES IN HEART RATE VARIABILITY DURING DIVING IN YOUNG HARBOR SEALS, PHOCA VITULINA. <i>Marine Mammal Science</i> , 2004, 20, 861-871.	1.8	18
36	Photobiomodulation effect on local hemoglobin concentration assessed by near-infrared spectroscopy in humans. <i>Lasers in Medical Science</i> , 2020, 35, 641-649.	2.1	18

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37	Effects of light-emitting diode therapy (LEDT) on cardiopulmonary and hemodynamic adjustments during aerobic exercise and glucose levels in patients with diabetes mellitus: A randomized, crossover, double-blind and placebo-controlled clinical trial. <i>Complementary Therapies in Medicine</i> , 2019, 42, 178-183.	2.7	16
38	The Relationship Between Repeated Sprint Ability, Aerobic Capacity, and Oxygen Uptake Recovery Kinetics in Female Soccer Athletes. <i>Journal of Human Kinetics</i> , 2020, 75, 115-126.	1.5	16
39	Investigating the impact of passive external lower limb compression on central and peripheral hemodynamics during exercise. <i>European Journal of Applied Physiology</i> , 2016, 116, 717-727.	2.5	15
40	Body Position and Cardiac Dynamic and Chronotropic Responses to Steady-State Isocapnic Hypoxaemia in Humans. <i>Experimental Physiology</i> , 2000, 85, 227-237.	2.0	13
41	Cardiac output by pulse contour analysis does not match the increase measured by rebreathing during human spaceflight. <i>Journal of Applied Physiology</i> , 2017, 123, 1145-1149.	2.5	13
42	The effect of beta-adrenergic blockade on leg blood flow with repeated maximal contractions of the triceps surae muscle group in man. <i>European Journal of Applied Physiology and Occupational Physiology</i> , 1990, 60, 360-364.	1.2	12
43	Respiratory muscle endurance is limited by lower ventilatory efficiency in post-myocardial infarction patients. <i>Brazilian Journal of Physical Therapy</i> , 2014, 18, 01-08.	2.5	12
44	Relationship between maximal aerobic power with aerobic fitness as a function of signal-to-noise ratio. <i>Journal of Applied Physiology</i> , 2020, 129, 522-532.	2.5	12
45	Blood Flow and Metabolic Control at the Onset of Heavy Exercise. <i>International Journal of Sport and Health Science</i> , 2003, 1, 9-18.	0.2	12
46	Linear and non-linear contributions to oxygen transport and utilization during moderate random exercise in humans. <i>Experimental Physiology</i> , 2017, 102, 563-577.	2.0	11
47	Exponential model for analysis of heart rate responses and autonomic cardiac modulation during different intensities of physical exercise. <i>Royal Society Open Science</i> , 2019, 6, 190639.	2.4	11
48	Biomechanics Sensor Node for Virtual Reality: A Wearable Device Applied to Gait Recovery for Neurofunctional Rehabilitation. <i>Lecture Notes in Computer Science</i> , 2020, , 757-770.	1.3	11
49	Temporal convolutional networks predict dynamic oxygen uptake response from wearable sensors across exercise intensities. <i>Npj Digital Medicine</i> , 2021, 4, 156.	10.9	11
50	System Analysis for Oxygen Uptake Kinetics with Step and Pseudorandom Binary Sequence Exercise in Endurance Athletes. <i>Measurement in Physical Education and Exercise Science</i> , 2008, 12, 1-9.	1.8	9
51	Lower limb vascular conductance and resting popliteal blood flow during head-up and head-down postural challenges. <i>Clinical Physiology and Functional Imaging</i> , 2013, 33, 186-191.	1.2	9
52	Prior head-down tilt does not impair the cerebrovascular response to head-up tilt. <i>Journal of Applied Physiology</i> , 2015, 118, 1356-1363.	2.5	9
53	Aerobic system analysis based on oxygen uptake and hip acceleration during random over-ground walking activities. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2017, 312, R93-R100.	1.8	9
54	COPD patients' oxygen uptake and heart rate on-kinetics at cycle-ergometer: correlation with their predictors of severity. <i>Brazilian Journal of Physical Therapy</i> , 2013, 17, 152-162.	2.5	8

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55	Superficial femoral artery blood flow with intermittent pneumatic compression of the lower leg applied during walking exercise and recovery. <i>Journal of Applied Physiology</i> , 2019, 127, 559-567.	2.5	8
56	Comparison of pulse contour, aortic Doppler ultrasound and bioelectrical impedance estimates of stroke volume during rapid changes in blood pressure. <i>Experimental Physiology</i> , 2019, 104, 368-378.	2.0	8
57	Acute Effects of the 6-Minute Pegboard and Ring Test in COPD. <i>Respiratory Care</i> , 2020, 65, 198-209.	1.6	8
58	Ventilatory CO2 response in endurance-trained rats. <i>European Journal of Applied Physiology and Occupational Physiology</i> , 1980, 45, 103-108.	1.2	7
59	Vascular conductance and muscle blood flow during exercise are altered by inspired oxygen fraction and arterial perfusion pressure. <i>Physiological Reports</i> , 2017, 5, e13144.	1.7	7
60	Mean Normalized Gain: A New Method for the Assessment of the Aerobic System Temporal Dynamics during Randomly Varying Exercise in Humans. <i>Frontiers in Physiology</i> , 2017, 8, 504.	2.8	7
61	High-Intensity Interval Training Improves Cardiac Autonomic Function in Patients with Type 2 Diabetes: A Randomized Controlled Trial. <i>Biology</i> , 2022, 11, 66.	2.8	7
62	Efficacy of fluid loading as a countermeasure to the hemodynamic and hormonal changes of 28-h head-down bed rest. <i>Physiological Reports</i> , 2018, 6, e13874.	1.7	6
63	Effect of high-intensity exercise on cerebral, respiratory and peripheral muscle oxygenation of HF and COPD-HF patients. <i>Heart and Lung: Journal of Acute and Critical Care</i> , 2021, 50, 113-120.	1.6	6
64	The impact of preconditioning exercise on the vascular response to an oral glucose challenge. <i>Applied Physiology, Nutrition and Metabolism</i> , 2021, 46, 443-451.	1.9	6
65	Avaliaç�o da frequ�ncia card�aca e medida de press�o expirat�ria m�xima est�tica e manobra de Valsalva em jovens saud�veis. <i>Brazilian Journal of Physical Therapy</i> , 2012, 16, 406-413.	2.5	5
66	CCISS, Vascular and BP Reg: Canadian space life science research on ISS. <i>Acta Astronautica</i> , 2014, 104, 444-448.	3.2	5
67	Associations Between Heart Rate Recovery Dynamics With Estradiol Levels in 20 to 60 Year-Old Sedentary Women. <i>Frontiers in Physiology</i> , 2018, 9, 533.	2.8	5
68	Frequency domain analysis to extract dynamic response characteristics for oxygen uptake during transitions to moderate- and heavy-intensity exercises. <i>Journal of Applied Physiology</i> , 2020, 129, 1422-1430.	2.5	5
69	High Fasting Glycemia Predicts Impairment of Cardiac Autonomic Control in Adults With Type 2 Diabetes: A Case-Control Study. <i>Frontiers in Endocrinology</i> , 2021, 12, 760292.	3.5	5
70	Evaluation of acute effect of light-emitting diode (LED) phototherapy on muscle deoxygenation and pulmonary oxygen uptake kinetics in patients with diabetes mellitus: study protocol for a randomized controlled trial. <i>Trials</i> , 2015, 16, 572.	1.6	4
71	Haemodynamic and cerebrovascular effects of intermittent lower-leg compression as countermeasure to orthostatic stress. <i>Experimental Physiology</i> , 2019, 104, 1790-1800.	2.0	4
72	Body position and cardiac dynamic and chronotropic responses to steady-state isocapnic hypoxaemia in humans. <i>Experimental Physiology</i> , 2000, 85, 227-237.	2.0	4

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73	Dose Response Effect of Photobiomodulation on Hemodynamic Responses and Glucose Levels in Men with Type 2 Diabetes: A Randomized, Crossover, Double-Blind, Sham-Controlled Trial. <i>Photonics</i> , 2022, 9, 481.	2.0	4
74	Recent myocardial infarction patients present ventilatory limitation during aerobic exercise. <i>International Journal of Cardiology</i> , 2012, 161, 180-181.	1.7	3
75	Cardiac autonomic responses to different tasks in office workers with access to a sit-stand table – a study in real work setting. <i>Ergonomics</i> , 2021, 64, 354-365.	2.1	3
76	Influência da idade no comportamento da frequência cardíaca na transição repouso-exercício: uma análise por deltas e regressão linear. <i>Revista Brasileira De Medicina Do Esporte</i> , 2012, 18, 300-304.	0.2	3
77	Failure of impedance plethysmography to follow exercise-induced changes in limb blood flow. <i>Clinical Science</i> , 1988, 75, 41-46.	4.3	2
78	Kinetics of \dot{V}_{E2} With Very High Intensity Exercise. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2001, 281, R681-R682.	1.8	2
79	On the method of fitting cardiac output kinetics in severe exercise. <i>European Journal of Applied Physiology</i> , 2011, 111, 1529-1531.	2.5	2
80	Acute effect of photobiomodulation using light-emitting diodes (LEDs) on baroreflex sensitivity during and after constant loading exercise in patients with type 2 diabetes mellitus. <i>Lasers in Medical Science</i> , 2020, 35, 329-336.	2.1	2
81	Evidence for increased cardiovascular risk to crew during long duration space missions. <i>Journal of Applied Physiology</i> , 2020, 129, 1111-1112.	2.5	1
82	Influence of intermittent pneumatic compression on foot sensation and balance control in chemotherapy-induced peripheral neuropathy patients. <i>Clinical Biomechanics</i> , 2021, 90, 105512.	1.2	1
83	Cardiopulmonary and Hemodynamic Adjustments During Aerobic Exercise After Light-Emitting Diode Therapy: A Comparison Between Healthy and Type 2 Diabetes Mellitus. <i>Chest</i> , 2017, 152, A978.	0.8	0
84	Production of shoots from Smooth Cayenne pineapple crowns with nitrogen fertilization. <i>Revista Brasileira De Fruticultura</i> , 2020, 42, .	0.5	0