Alberto E Minetti

List of Publications by Year
in descending order

103	6,066	81434	84171
papers	citations	41 h-index	75 g-index

106	106	106	5002
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Inertial biometry from commercial 3D body meshes. Biology Open, 2022, 11, .	0.6	0
2	Mechanical work as a (key) determinant of energy cost in human locomotion: recent findings and future directions. Experimental Physiology, 2021, 106, 1897-1908.	0.9	29
3	Prof. Neill Alexander's influence on modeling and optimization theory of movement and locomotion. Journal of Experimental Zoology Part A: Ecological and Integrative Physiology, 2020, 333, 5-8.	0.9	1
4	Frictional internal work of damped limbs oscillation in human locomotion. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20201410.	1.2	11
5	LOCOMOZIONE UMANA E ANIMALE A DIFFERENTI GRAVITÃƒâ‚¬: ADATTAMENTI BIOMECCANICI ED EFFETTI METABOLICI. Istituto Lombardo - Accademia Di Scienze E Lettere - Rendiconti Di Scienze, 2020, , .	0.0	0
6	A slow V̀‡O2 on-response allows to comfortably adopt aerobically unaffordable walking and running speeds in short stairs ascending. Journal of Experimental Biology, 2020, 223, .	0.8	1
7	Biomechanical and metabolic aspects of backward (and forward) running on uphill gradients: another clue towards an almost inelastic rebound. European Journal of Applied Physiology, 2020, 120, 2507-2515.	1.2	7
8	Race Walking Ground Reaction Forces at Increasing Speeds: A Comparison with Walking and Running. Symmetry, 2019, 11, 873.	1.1	8
9	Comprehensive mechanical power analysis in sprint running acceleration. Scandinavian Journal of Medicine and Science in Sports, 2019, 29, 1892-1900.	1.3	16
10	Mechanical work in shuttle running as a function of speed and distance: Implications for power and efficiency. Human Movement Science, 2019, 66, 487-496.	0.6	14
11	Energy cost of ambulation in trans-tibial amputees using a dynamic-response foot with hydraulic versus rigid â€˜ankleâ€™: insights from body centre of mass dynamics. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 39.	2.4	21
12	Biomechanics of Alpine Skiing. Sports Et Traumatologie, 2018, , 1-7.	0.0	0
13	Update and extension of the â€˜Equivalent Slopeâ€™ of speed changing level locomotion in humans: a computational model for shuttle running. Journal of Experimental Biology, 2018, 221, .	0.8	16
14	Recumbent vs. upright bicycles: 3D trajectory of body centre of mass, limb mechanical work, and operative range of propulsive muscles. Journal of Sports Sciences, 2017, 35, 491-499.	1.0	2
15	Comment on: â€œHow Biomechanical Improvements in Running Economy Could Break the 2-Hour Marathon Barrierâ€• Sports Medicine, 2017, 47, 2403-2404.	3.1	3
16	Mechanical energy patterns in nordic walking: comparisons with conventional walking. Gait and Posture, 2017, 51, 234-238.	0.6	36
17	On the Estimation Accuracy of the 3D Body Center of Mass Trajectory during Human Locomotion: Inverse vs. Forward Dynamics. Frontiers in Physiology, 2017, 8, 129.	1.3	45
18	A â€œWearableâ€•Test for Maximum Aerobic Power: Real-Time Analysis of a 60-m Sprint Performance and Heart Rate Off-Kinetics. Frontiers in Physiology, 2017, 8, 868.	1.3	5

#	Article	IF	Citations
19	Hopping locomotion at different gravity: metabolism and mechanics in humans. Journal of Applied Physiology, 2016, 120, 1223-1229.	1.2	25
20	Mechanical work and efficiency of 5Â+Â5Âm shuttle running. European Journal of Applied Physiology, 2016, 116, 1911-1919.	1.2	34
21	Pedaling rate is an important determinant of human oxygen uptake during exercise on the cycle ergometer. Physiological Reports, 2015, 3, e12500.	0.7	19
22	Breaststroke swimmers moderate internal work increases toward the highest stroke frequencies. Journal of Biomechanics, 2015, 48, 3012-3016.	0.9	4
23	Shoulder 3D range of motion and humerus rotation in two volleyball spike techniques: injury prevention and performance. Sports Biomechanics, 2015, 14, 216-231.	0.8	28
24	Skipping vs. running as the bipedal gait of choice in hypogravity. Journal of Applied Physiology, 2015, 119, 93-100.	1.2	50
25	The biomechanics of race walking: Literature overview and new insights. European Journal of Sport Science, 2014, 14, 661-670.	1.4	35
26	The vertical excursion of the body visceral mass during vertical jumps is affected by specific respiratory maneuver. Human Movement Science, 2014, 33, 369-380.	0.6	4
27	Overuse in volleyball training/practice: A review on shoulder and spine-related injuries. European Journal of Sport Science, 2013, 13, 732-743.	1.4	72
28	Biomechanics and predicted energetics of sprinting on sand: Hints for soccer training. Journal of Science and Medicine in Sport, 2013, 16, 271-275.	0.6	55
29	The cost of transport of human running is not affected, as in walking, by wide acceleration/deceleration cycles. Journal of Applied Physiology, 2013, 114, 498-503.	1.2	35
30	Comments on Point:Counterpoint: Skeletal muscle mechanical efficiency does/does not increase with age. Journal of Applied Physiology, 2013, 114, 1114-1118.	1.2	3
31	Anatomically Asymmetrical Runners Move More Asymmetrically at the Same Metabolic Cost. PLoS ONE, 2013, 8, e74134.	1.1	33
32	Limitations imposed by wearing armour on Medieval soldiers' locomotor performance. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 640-644.	1.2	10
33	Validation of a subject specific 3-actuator torque-driven model in human vertical jumping. , 2012, 2012, 4883-6.		0
34	Biomechanical determinants of transverse and rotary gallop in cursorial mammals. Journal of Experimental Biology, 2012, 215, 4144-56.	0.8	54
35	The energetics and mechanics of level and gradient skipping: Preliminary results for a potential gait of choice in low gravity environments.. Planetary and Space Science, 2012, 74, 142-145.	0.9	24
36	Humans Running in Place on Water at Simulated Reduced Gravity. PLoS ONE, 2012, 7, e37300.	1.1	10

#	Article	IF	Citations
37	Skyscraper running: physiological and biomechanical profile of a novel sport activity. Scandinavian Journal of Medicine and Science in Sports, 2011, 21, 293-301.	1.3	21
38	Measured and predicted mechanical internal work in human locomotion. Human Movement Science, 2011, 30, 90-104.	0.6	39
39	Bioenergetics and biomechanics of cycling: the role of â€˜internal workâ€™. European Journal of Applied Physiology, 2011, 111, 323-329.	1.2	30
40	The mathematical description of the body centre of mass 3D path in human and animal locomotion. Journal of Biomechanics, 2011, 44, 1471-1477.	0.9	47
41	Biomechanics of octopedal locomotion: kinematic and kinetic analysis of the spiderGrammostola mollicoma. Journal of Experimental Biology, 2011, 214, 3433-3442.	0.8	42
42	The optimum finger spacing in human swimming. Journal of Biomechanics, 2009, 42, 2188-2190.	0.9	28
43	Centre of mass motion during stair negotiation in young and older men. Gait and Posture, 2007, 26, 463-469.	0.6	50
44	The Impact of Physical Training on Locomotor Function in Older People. Sports Medicine, 2007, 37, 683-701.	3.1	67
45	Human locomotion on ice: the evolution of ice-skating energetics through history. Journal of Experimental Biology, 2007, 210, 1825-1833.	0.8	20
46	Keystroke dynamics and timing: Accuracy, precision and difference between hands in pianist's performance. Journal of Biomechanics, 2007, 40, 3738-3743.	0.9	18
47	The first humans travelling on ice: an energy-saving strategy?. Biological Journal of the Linnean Society, 2007, 93, 1-7.	0.7	4
48	Gastrocnemius muscle?tendon behaviour during walking in young and older adults. Acta Physiologica, 2007, 189, 57-65.	1.8	78
49	Effect of a 12-month physical conditioning programme on the metabolic cost of walking in healthy older adults. European Journal of Applied Physiology, 2007, 100, 499-505.	1.2	56
50	Himalayan porter's specialization: metabolic power, economy, efficiency and skill. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 2791-2797.	1.2	40
51	Metabolic cost, mechanical work, and efficiency during walking in young and older men. Acta Physiologica, 2006, 186, 127-139.	1.8	281
52	Economy and efficiency of swimming at the surface with fins of different size and stiffness. European Journal of Applied Physiology, 2006, 96, 459-470.	1.2	37
53	An energy balance of front crawl. European Journal of Applied Physiology, 2005, 94, 134-144.	1.2	113
54	Magnetic Resonance Imaging of the Rectum During Distension. Diseases of the Colon and Rectum, 2005, 48, 1220-1227.	0.7	16

#	Article	IF	Citations
55	Human locomotion on snow: determinants of economy and speed of skiing across the ages. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 1561-1569.	1.2	21
56	Biomechanics and Energetics of Basketball Wheelchairs Evolution. International Journal of Sports Medicine, 2005, 26, 388-396.	0.8	9
57	Passive tools for enhancing muscle-driven motion and locomotion. Journal of Experimental Biology, 2004, 207, 1265-1272.	0.8	47
58	Biomechanical and physiological aspects of legged locomotion in humans. European Journal of Applied Physiology, 2003, 88, 297-316.	1.2	332
59	The optimal locomotion on gradients: walking, running or cycling?. European Journal of Applied Physiology, 2003, 90, 365-371.	1.2	45
60	Efficiency of equine express postal systems. Nature, 2003, 426, 785-786.	13.7	20
61	A feedback-controlled treadmill (treadmill-on-demand) and the spontaneous speed of walking and running in humans. Journal of Applied Physiology, 2003, 95, 838-843.	1.2	104
62	METABOLIC COST OF WALKING AT SET AND SELF-SELECTED SPEEDS IN OLDER MALES AND FEMALES. Medicine and Science in Sports and Exercise, 2003, 35, S296.	0.2	1
63	Plantar flexor activation capacity and H reflex in older adults: adaptations to strength training. Journal of Applied Physiology, 2002, 92, 2292-2302.	1.2	177
64	Energy cost of walking and running at extreme uphill and downhill slopes. Journal of Applied Physiology, 2002, 93, 1039-1046.	1.2	449
65	On the mechanical power of joint extensions as affected by the change in muscle force (or) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	1.2	41
66	Interplay among the changes of muscle strength, cross-sectional area and maximal explosive power: theory and facts. European Journal of Applied Physiology, 2002, 88, 193-202.	1.2	48
67	Halteres used in ancient Olympic long jump. Nature, 2002, 420, 141-142.	13.7	38
68	Mechanical efficiency of cycling with a new developed pedalâ€“crank. Journal of Biomechanics, 2002, 35, 1387-1398.	0.9	32
69	How fins affect the economy and efficiency of human swimming. Journal of Experimental Biology, 2002, 205, 2665-2676.	0.8	92
70	How fins affect the economy and efficiency of human swimming. Journal of Experimental Biology, 2002, 205, 2665-76.	0.8	69
71	Maximal instantaneous muscular power after prolonged bed rest in humans. Journal of Applied Physiology, 2001, 90, 431-435.	1.2	51
72	The transmission efficiency of backward walking at different gradients. Pflugers Archiv European Journal of Physiology, 2001, 442, 542-546.	1.3	18

#	Article	IF	Citations
73	Invariant aspects of human locomotion in different gravitational environments. Acta Astronautica, 2001, 49, 191-198.	1.7	44
74	Walking on other planets. Nature, 2001, 409, 467-469.	13.7	59
75	Energetics and Mechanics of Human Walking at Oscillating Speeds1. American Zoologist, 2001, 41, 205-210.	0.7	10
76	Energetics and Mechanics of Human Walking at Oscillating Speeds. American Zoologist, 2001, 41, 205-210.	0.7	19
77	Correction for Minetti et al. , From bipedalism to bicyclism: evolution in energetics and biomechanics of historic bicycles. Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 2616-2616.	1.2	0
78	From bipedalism to bicyclism: evolution in energetics and biomechanics of historic bicycles. Proceedings of the Royal Society B: Biological Sciences, 2001, 268, 1351-1360.	1.2	71
79	Mechanical and metabolic profile of locomotion in adults with childhood-onset GH deficiency. European Journal of Endocrinology, 2000, 142, 35-41.	1.9	29
80	The relationship between mechanical work and energy expenditure of locomotion in horses. Journal of Experimental Biology, 1999, 202, 2329-38.	0.8	123
81	A model equation for the prediction of mechanical internal work of terrestrial locomotion. Journal of Biomechanics, 1998, 31, 463-468.	0.9	95
82	The biomechanics of skipping gaits: a third locomotion paradigm?. Proceedings of the Royal Society B: Biological Sciences, 1998, 265, 1227-1233.	1.2	108
83	Using leg muscles as shock absorbers: theoretical predictions and experimental results of drop landing performance. Ergonomics, 1998, 41, 1771-1791.	1.1	37
84	The interplay of central and peripheral factors in limiting maximal O2consumption in man after prolonged bed rest. Journal of Physiology, 1997, 501, 677-686.	1.3	148
85	A Theory of Metabolic Costs for Bipedal Gaits. Journal of Theoretical Biology, 1997, 186, 467-476.	0.8	185
86	Effects of stride frequency on mechanical power and energy expenditure of walking. Medicine and Science in Sports and Exercise, 1995, 27, 1194???1202.	0.2	113
87	Metabolic and mechanical aspects of foot landing type, forefoot and rearfoot strike, in human running. Acta Physiologica Scandinavica, 1995, 155, 17-22.	2.3	76
88	Optimum gradient of mountain paths. Journal of Applied Physiology, 1995, 79, 1698-1703.	1.2	60
89	Effects of stride frequency on mechanical power and energy expenditure of walking. Medicine and Science in Sports and Exercise, 1995, 27, 1194-202.	0.2	41
90	Contraction Dynamics in Antagonist Muscles. Journal of Theoretical Biology, 1994, 169, 295-304.	0.8	7

#	Article	IF	Citations
91	A model for the estimation of visceral mass displacement in periodic movements. Journal of Biomechanics, 1994, 27, 97-101.	0.9	23
92	Pygmy locomotion. European Journal of Applied Physiology and Occupational Physiology, 1994, 68, 285-290.	1.2	47
93	The transition between walking and running in humans: metabolic and mechanical aspects at different gradients. Acta Physiologica Scandinavica, 1994, 150, 315-323.	2.3	155
94	Mechanical Determinants of the Minimum Energy Cost of Gradient Running in Humans. Journal of Experimental Biology, 1994, 195, 211-225.	0.8	152
95	Mechanical determinants of the minimum energy cost of gradient running in humans. Journal of Experimental Biology, 1994, 195, 211-25.	0.8	101
96	Mechanical determinants of gradient walking energetics in man.. Journal of Physiology, 1993, 472, 725-735.	1.3	133
97	Assessment of human knee extensor muscles stress from in vivo physiological cross-sectional area and strength measurements. European Journal of Applied Physiology and Occupational Physiology, 1992, 65, 438-444.	1.2	223
98	Mechanical Work Rate Minimization and Freely Chosen Stride Frequency of Human Walking: A Mathematical Model. Journal of Experimental Biology, 1992, 170, 19-34.	0.8	46
99	Mechanical work rate minimization and freely chosen stride frequency of human walking: a mathematical model. Journal of Experimental Biology, 1992, 170, 19-34.	0.8	27
100	IV. Oxygen Transport System Before and After Exposure to Chronic Hypoxia. International Journal of Sports Medicine, 1990, 11, S15-S20.	0.8	29
101	Changes in force, cross-sectional area and neural activation during strength training and detraining of the human quadriceps. European Journal of Applied Physiology and Occupational Physiology, 1989, 59, 310-319.	1.2	572
102	Respiratory airflow pattern in patients with chronic airway obstruction. Clinical Physiology, 1987, 7, 283-296.	0.7	4
103	Inspiratory flow pattern in humans. Journal of Applied Physiology, 1984, 57, 1111-1119.	1.2	32