Rodger Kram

List of Publications by Year
in descending order

110 papers	10,109 citations	41344 49 h-index	36028 97 g-index
117 all docs	117 docs citations	117 times ranked	6800 citing authors

#	Article	IF	Citations
1	Metabolic cost of level, uphill, and downhill running in highly cushioned shoes with carbon-fiber plates. Journal of Sport and Health Science, 2022, 11, 303-308.	6.5	13
2	Effects of course design (curves and elevation undulations) on marathon running performance: a comparison of Breaking 2 in Monza and the INEOS 1:59 Challenge in Vienna. Journal of Sports Sciences, 2021, 39, 754-759.	2.0	11
3	No effect of cycling shoe sole stiffness on sprint performance. Footwear Science, 2021, 13, 69-77.	2.1	2
4	Does the preferred walkâ€"run transition speed on steep inclines minimize energetic cost, heart rate or neither?. Journal of Experimental Biology, 2021, 224, .	1.7	5
5	The influence of bicycle lean on maximal power output during sprint cycling. Journal of Biomechanics, 2021, 125, 110595.	2.1	2
6	Nose-down saddle tilt improves gross efficiency during seated-uphill cycling. European Journal of Applied Physiology, 2021, , 1.	2.5	1
7	Steep (30Â°) uphill walking vs. running: COM movements, stride kinematics, and leg muscle excitations. European Journal of Applied Physiology, 2020, 120, 2147-2157.	2.5	12
8	The effect of cycling shoes and the shoe-pedal interface on maximal mechanical power output during outdoor sprints. Footwear Science, 2020, 12, 185-192.	2.1	4
9	Commentaries on Viewpoint: Physiology and fast marathons. Journal of Applied Physiology, 2020, 128, 1069-1085.	2.5	12
10	Shoes, running economy and distance running performance. Footwear Science, 2019, 11, S2-S3.	2.1	0
11	Extrapolating Metabolic Savings in Running: Implications for Performance Predictions. Frontiers in Physiology, 2019, 10, 79.	2.8	66
12	Do poles save energy during steep uphill walking?. European Journal of Applied Physiology, 2019, 119, 1557-1563.	2.5	11
13	Preferred walking speed on rough terrain; is it all about energetics?. Journal of Experimental Biology, 2019, 222, .	1.7	19
14	The Biomechanics of Competitive Male Runners in Three Marathon Racing Shoes: A Randomized Crossover Study. Sports Medicine, 2019, 49, 133-143.	6.5	94
15	Level, uphill and downhill running economy values are strongly inter-correlated. European Journal of Applied Physiology, 2019, 119, 257-264.	2.5	11
16	Cardiometabolic Effects of a Workplace Cycling Intervention. Journal of Physical Activity and Health, 2019, 16, 547-555.	2.0	9
17	Modelling the effect of curves on distance running performance. PeerJ, 2019, 7, e8222.	2.0	8
18	Comparison of running and cycling economy in runners, cyclists, and triathletes. European Journal of Applied Physiology, 2018, 118, 1331-1338.	2.5	12

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19	Calculating metabolic energy expenditure across a wide range of exercise intensities: the equation matters. Applied Physiology, Nutrition and Metabolism, 2018, 43, 639-642.	1.9	65
20	A Comparison of the Energetic Cost of Running in Marathon Racing Shoes. Sports Medicine, 2018, 48, 1009-1019.	6.5	225
21	What determines the metabolic cost of human running across a wide range of velocities?. Journal of Experimental Biology, 2018, 221, .	1.7	56
22	Last Word on Viewpoint: Use aerobic energy expenditure instead of oxygen uptake to quantify exercise intensity and predict endurance performance. Journal of Applied Physiology, 2018, 125, 675-675.	2.5	0
23	Use aerobic energy expenditure instead of oxygen uptake to quantify exercise intensity and predict endurance performance. Journal of Applied Physiology, 2018, 125, 672-674.	2.5	28
24	Does Metabolic Rate Increase Linearly with Running Speed in all Distance Runners?. Sports Medicine International Open, 2018, 02, E1-E8.	1.1	27
25	Contributions of metabolic and temporal costs to human gait selection. Journal of the Royal Society Interface, 2018, 15, 20180197.	3.4	31
26	How Biomechanical Improvements in Running Economy Could Break the 2-hour Marathon Barrier. Sports Medicine, 2017, 47, 1739-1750.	6.5	76
27	Authorâ€™s Reply to Candau et al.: Comment on: â€œHow Biomechanical Improvements in Running Economy Could Break the 2-Hour Marathon Barrierâ€. Sports Medicine, 2017, 47, 2405-2407.	6.5	2
28	Changing relative crank angle increases the metabolic cost of leg cycling. European Journal of Applied Physiology, 2017, 117, 2021-2027.	2.5	0
29	The metabolic costs of walking and running up a 30-degree incline: implications for vertical kilometer foot races. European Journal of Applied Physiology, 2017, 117, 1869-1876.	2.5	12
30	Ground reaction forces during steeplechase hurdling and waterjumps. Sports Biomechanics, 2017, 16, 152-165.	1.6	11
31	Pedelecs as a physically active transportation mode. European Journal of Applied Physiology, 2016, 116, 1565-1573.	2.5	51
32	Effects of shoe type and shoeâ€“pedal interface on the metabolic cost of bicycling. Footwear Science, 2016, 8, 19-22.	2.1	8
33	Altered Running Economy Directly Translates to Altered Distance-Running Performance. Medicine and Science in Sports and Exercise, 2016, 48, 2175-2180.	0.4	137
34	Motor-Driven (Passive) Cycling. Medicine and Science in Sports and Exercise, 2016, 48, 1821-1828.	0.4	3
35	Maximum-speed curve-running biomechanics of sprinters with and without unilateral leg amputations. Journal of Experimental Biology, 2016, 219, 851-858.	1.7	26
36	A. V. Hill sticks his neck out. Journal of Experimental Biology, 2016, 219, 468-469.	1.7	3

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37	Energetics of vertical kilometer foot races; is steeper cheaper?. Journal of Applied Physiology, 2016, 120, 370-375.	2.5	38
38	Effect of Running Speed and Leg Prostheses on Mediolateral Foot Placement and Its Variability. PLoS ONE, 2015, 10, e0115637.	2.5	13
39	Running for Exercise Mitigates Age-Related Deterioration of Walking Economy. PLoS ONE, 2014, 9, e113471.	2.5	21
40	A Test of the Metabolic Cost of Cushioning Hypothesis during Unshod and Shod Running. Medicine and Science in Sports and Exercise, 2014, 46, 324-329.	0.4	75
41	Real-time feedback enhances forward propulsion during walking in old adults. Clinical Biomechanics, 2014, 29, 68-74.	1.2	64
42	Advanced age and the mechanics of uphill walking: A joint-level, inverse dynamic analysis. Gait and Posture, 2014, 39, 135-140.	1.4	85
43	Forces and mechanical energy fluctuations during diagonal stride roller skiing; running on wheels?. Journal of Experimental Biology, 2014, 217, 3779-85.	1.7	10
44	Activity and functions of the human gluteal muscles in walking, running, sprinting, and climbing. American Journal of Physical Anthropology, 2014, 153, 124-131.	2.1	58
45	The metabolic cost of human running: is swinging the arms worth it?. Journal of Experimental Biology, 2014, 217, 2456-2461.	1.7	42
46	The kangaroo's tail propels and powers pentapedal locomotion. Biology Letters, 2014, 10, 20140381.	2.3	61
47	Muscle contributions to propulsion and braking during walking and running: Insight from external force perturbations. Gait and Posture, 2014, 40, 594-599.	1.4	48
48	Partitioning the Metabolic Cost of Human Running: A Task-by-Task Approach. Integrative and Comparative Biology, 2014, 54, 1084-1098.	2.0	67
49	Optimal Starting Block Configuration in Sprint Running: A Comparison of Biological and Prosthetic Legs. Journal of Applied Biomechanics, 2014, 30, 381-389.	0.8	10
50	Applying the cost of generating force hypothesis to uphill running. PeerJ, 2014, 2, e482.	2.0	19
51	Advanced age affects the individual leg mechanics of level, uphill, and downhill walking. Journal of Biomechanics, 2013, 46, 535-540.	2.1	67
52	How does age affect leg muscle activity/coactivity during uphill and downhill walking?. Gait and Posture, 2013, 37, 378-384.	1.4	99
53	Dynamic stability of running: The effects of speed and leg amputations on the maximal Lyapunov exponent. Chaos, 2013, 23, 043131.	2.5	22
54	The metabolic and mechanical costs of step time asymmetry in walking. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20122784.	2.6	83

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55	Metabolic Cost of Running Barefoot versus Shod. Medicine and Science in Sports and Exercise, 2012, 44, 1519-1525.	0.4	163
56	Leg stiffness of sprinters using running-specific prostheses. Journal of the Royal Society Interface, 2012, 9, 1975-1982.	3.4	76
57	The role of elastic energy storage and recovery in downhill and uphill running. Journal of Experimental Biology, 2012, 215, 2283-2287.	1.7	44
58	TAYLOR'S TREADMILL MENAGERIE. Journal of Experimental Biology, 2012, 215, 2349-2350.	1.7	3
59	Reduction of Metabolic Cost during Motor Learning of Arm Reaching Dynamics. Journal of Neuroscience, 2012, 32, 2182-2190.	3.6	144
60	The energetic cost of maintaining lateral balance during human running. Journal of Applied Physiology, 2012, 112, 427-434.	2.5	29
61	Factors affecting the increased energy expenditure during passive cycling. European Journal of Applied Physiology, 2012, 112, 3341-3348.	2.5	10
62	Mechanical work performed by the individual legs during uphill and downhill walking. Journal of Biomechanics, 2012, 45, 257-262.	2.1	77
63	The effects of grade and speed on leg muscle activations during walking. Gait and Posture, 2012, 35, 143-147.	1.4	123
64	Does arm swing provide mechanical and metabolic benefits during human running?. FASEB Journal, 2012, 26, 1145.1.	0.5	0
65	Why is walker-assisted gait metabolically expensive?. Gait and Posture, 2011, 34, 265-269.	1.4	22
66	The Energetic Cost of Maintaining Lateral Balance in Human Running. Medicine and Science in Sports and Exercise, 2011, 43, 100.	0.4	0
67	Bouncing to conclusions: clear evidence for the metabolic cost of generating muscular force. Journal of Applied Physiology, 2011, 110, 865-866.	2.5	1
68	The effects of step width and arm swing on energetic cost and lateral balance during running. Journal of Biomechanics, 2011, 44, 1291-1295.	2.1	96
69	The Metabolic Cost of Locomotion; Muscle by Muscle. Exercise and Sport Sciences Reviews, 2011, 39, 57-58.	3.0	2
70	Measuring Changes in Aerodynamic/Rolling Resistances by Cycle-Mounted Power Meters. Medicine and Science in Sports and Exercise, 2011, 43, 853-860.	0.4	21
71	Running-specific prostheses limit ground-force during sprinting. Biology Letters, 2010, 6, 201-204.	2.3	86
72	Counterpoint: Artificial legs do not make artificially fast running speeds possible. Journal of Applied Physiology, 2010, 108, 1012-1014.	2.5	26

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73	Last Word on Point:Counterpoint: Artificial limbs do/do not make artificially fast running speeds possible. Journal of Applied Physiology, 2010, 108, 1020-1020.	2.5	3
74	Pound for pound: Working out how obesity influences the energetics of walking. Journal of Applied Physiology, 2009, 106, 1755-1756.	2.5	10
75	The fastest runner on artificial legs: different limbs, similar function?. Journal of Applied Physiology, 2009, 107, 903-911.	2.5	136
76	Obesity does not increase external mechanical work per kilogram body mass during walking. Journal of Biomechanics, 2009, 42, 2273-2278.	2.1	51
77	Running with horizontal pulling forces: the benefits of towing. European Journal of Applied Physiology, 2008, 104, 473-479.	2.5	3
78	Low metabolic cost of locomotion in ornate box turtles,<i>Terrapene ornata</i>. Journal of Experimental Biology, 2008, 211, 3671-3676.	1.7	22
79	Changing the demand on specific muscle groups affects the walkâ€“run transition speed. Journal of Experimental Biology, 2008, 211, 1281-1288.	1.7	47
80	Limitations to maximum running speed on flat curves. Journal of Experimental Biology, 2007, 210, 971-982.	1.7	110
81	Effects of independently altering body weight and body mass on the metabolic cost of running. Journal of Experimental Biology, 2007, 210, 4418-4427.	1.7	94
82	The Effects of Adding Mass to the Legs on the Energetics and Biomechanics of Walking. Medicine and Science in Sports and Exercise, 2007, 39, 515-525.	0.4	433
83	Effects of Obesity on the Biomechanics of Walking at Different Speeds. Medicine and Science in Sports and Exercise, 2007, 39, 1632-1641.	0.4	287
84	Effects of obesity and sex on the energetic cost and preferred speed of walking. Journal of Applied Physiology, 2006, 100, 390-398.	2.5	461
85	The locomotor kinematics of Asian and African elephants: changes with speed and size. Journal of Experimental Biology, 2006, 209, 3812-3827.	1.7	124
86	Mechanical energy fluctuations during hill walking: the effects of slope on inverted pendulum exchange. Journal of Experimental Biology, 2006, 209, 4895-4900.	1.7	59
87	Metabolic energy and muscular activity required for leg swing in running. Journal of Applied Physiology, 2005, 98, 2126-2131.	2.5	51
88	Independent metabolic costs of supporting body weight and accelerating body mass during walking. Journal of Applied Physiology, 2005, 98, 579-583.	2.5	190
89	Energy cost and muscular activity required for leg swing during walking. Journal of Applied Physiology, 2005, 99, 23-30.	2.5	130
90	Ground reaction forces during downhill and uphill running. Journal of Biomechanics, 2005, 38, 445-452.	2.1	255

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91	Energetic Cost and Preferred Speed of Walking in Obese vs. Normal Weight Women. Obesity, 2005, 13, 891-899.	4.0	174
92	Giant GalaÌpagos tortoises walk without inverted pendulum mechanical-energy exchange. Journal of Experimental Biology, 2005, 208, 1489-1494.	1.7	45
93	Biomechanical and energetic determinants of the walkâ€“trot transition in horses. Journal of Experimental Biology, 2004, 207, 4215-4223.	1.7	132
94	Mechanical and metabolic requirements for active lateral stabilization in human walking. Journal of Biomechanics, 2004, 37, 827-835.	2.1	378
95	Are fast-moving elephants really running?. Nature, 2003, 422, 493-494.	27.8	115
96	Energy cost and muscular activity required for propulsion during walking. Journal of Applied Physiology, 2003, 94, 1766-1772.	2.5	265
97	Metabolic cost of generating muscular force in human walking: insights from load-carrying and speed experiments. Journal of Applied Physiology, 2003, 95, 172-183.	2.5	233
98	Simultaneous positive and negative external mechanical work in human walking. Journal of Biomechanics, 2002, 35, 117-124.	2.1	427
99	Mechanical work for step-to-step transitions is a major determinant of the metabolic cost of human walking. Journal of Experimental Biology, 2002, 205, 3717-27.	1.7	360
100	Applied horizontal force increases impact loading in reduced-gravity running. Journal of Biomechanics, 2001, 34, 679-685.	2.1	28
101	Penguin waddling is not wasteful. Nature, 2000, 408, 929-929.	27.8	99
102	How Animals Move: An Integrative View. Science, 2000, 288, 100-106.	12.6	1,357
103	Metabolic cost of generating horizontal forces during human running. Journal of Applied Physiology, 1999, 86, 1657-1662.	2.5	130
104	Walking in simulated reduced gravity: mechanical energy fluctuations and exchange. Journal of Applied Physiology, 1999, 86, 383-390.	2.5	91
105	Force treadmill for measuring vertical and horizontal ground reaction forces. Journal of Applied Physiology, 1998, 85, 764-769.	2.5	185
106	Are Efficiency and the Cost of Generating Force Both Relevant Concepts?. Journal of Applied Biomechanics, 1997, 13, 460-463.	0.8	1
107	Energetics of running: a new perspective. Nature, 1990, 346, 265-267.	27.8	656
108	Load carriage with compliant poles â€" Physiological and/or biomechanical advantages?. Journal of Biomechanics, 1987, 20, 893.	2.1	5

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109	Could a hybrid cycling-running shoe offer time savings to triathletes?. Footwear Science, 0, , 1-8.	2.1	0
110	The metabolic cost of emulated aerodynamic drag forces in marathon running. Journal of Applied Physiology, 0, , .	2.5	3