Reinhard Blickhan

List of Publications by Year
in descending order

90 papers	4,767 citations	101543 36 h-index	98798 67 g-index
91 all docs	91 docs citations	91 times ranked	2572 citing authors

#	Article	IF	Citations
1	The influence of sagittal trunk leans on uneven running mechanics. Journal of Experimental Biology, 2021, 224, .	1.7	0
2	Measuring strain in the exoskeleton of spidersâ€"virtues and caveats. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2021, 207, 191-204.	1.6	10
3	Trunk and leg kinematics of grounded and aerial running in bipedal macaques. Journal of Experimental Biology, 2020, 224, .	1.7	6
4	Low leg compliance permits grounded running at speeds where the inverted pendulum model gets airborne. Journal of Theoretical Biology, 2020, 494, 110227.	1.7	7
5	Humans adjust the height of their center of mass within one step when running across camouflaged changes in ground level. Journal of Biomechanics, 2019, 84, 278-283.	2.1	7
6	The effects of an expected twofold perturbation on able-bodied gait: Trunk flexion and uneven ground surface. Gait and Posture, 2018, 61, 431-438.	1.4	7
7	Packing of muscles in the rabbit shank influences three-dimensional architecture of M. soleus. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 83, 20-27.	3.1	17
8	Global dynamics of bipedal macaques during grounded and aerial running. Journal of Experimental Biology, 2018, 221, .	1.7	17
9	Bipedal gait versatility in the Japanese macaque (Macaca fuscata). Journal of Human Evolution, 2018, 125, 2-14.	2.6	10
10	Locomotor stability in able-bodied trunk-flexed gait across uneven ground. Human Movement Science, 2018, 62, 176-183.	1.4	6
11	Increasing trunk flexion morphs human leg function into that of birds despite different leg morphology. Journal of Experimental Biology, 2017, 220, 478-486.	1.7	22
12	Propulsion in hexapod locomotion: How do desert ants traverse slopes?. Journal of Experimental Biology, 2017, 220, 1618-1625.	1.7	24
13	Force direction patterns promote whole body stability even in hip-flexed walking, but not upper body stability in human upright walking. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2017, 473, 20170404.	2.1	34
14	Posture alteration as a measure to accommodate uneven ground in able-bodied gait. PLoS ONE, 2017, 12, e0190135.	2.5	15
15	Stability in skipping gaits. Royal Society Open Science, 2016, 3, 160602.	2.4	13
16	Myosin filament sliding through the Z-disc relates striated muscle fibre structure to function. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20153030.	2.6	18
17	Intermuscular pressure between synergistic muscles correlates with muscle force. Journal of Experimental Biology, 2016, 219, 2311-2319.	1.7	21
18	Threeâ€dimensional reconstruction of M. gastrocnemius contraction. Proceedings in Applied Mathematics and Mechanics, 2016, 16, 111-112.	0.2	0

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19	Does weightlifting increase residual force enhancement?. Journal of Biomechanics, 2016, 49, 2047-2052.	2.1	16
20	Force reduction induced by unidirectional transversal muscle loading is independent of local pressure. Journal of Biomechanics, 2016, 49, 1156-1161.	2.1	27
21	Biomechanical assessment of the injury risk of stomping. International Journal of Legal Medicine, 2016, 130, 827-834.	2.2	8
22	Preparing the leg for ground contact in running: the contribution of feed-forward and visual feedback. Journal of Experimental Biology, 2015, 218, 451-7.	1.7	40
23	Minimizing the cost of locomotion with inclined trunk predicts crouched leg kinematics of small birds at realistic levels of elastic recoil. Journal of Experimental Biology, 2015, 219, 485-90.	1.7	11
24	Three-Dimensional Muscle Architecture and Comprehensive Dynamic Properties of Rabbit Gastrocnemius, Plantaris and Soleus: Input for Simulation Studies. PLoS ONE, 2015, 10, e0130985.	2.5	54
25	Low back pain affects trunk as well as lower limb movements during walking and running. Journal of Biomechanics, 2015, 48, 1009-1014.	2.1	84
26	Positioning the hip with respect to the COM: Consequences for leg operation. Journal of Theoretical Biology, 2015, 382, 187-197.	1.7	25
27	Influence of chronic back pain on kinematic reactions to unpredictable arm pulls. Clinical Biomechanics, 2015, 30, 290-295.	1.2	17
28	Novel microstructural findings in M. plantaris and their impact during active and passive loading at the macro level. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 51, 25-39.	3.1	33
29	Ultra miniature force plate for measuring triaxial forces in the micro newton range. Journal of Experimental Biology, 2014, 217, 704-10.	1.7	19
30	Body movement distribution with respect to swimmerâ€™s glide position in human underwater undulatory swimming. Human Movement Science, 2014, 38, 305-318.	1.4	18
31	Level locomotion in wood ants: evidence for grounded running. Journal of Experimental Biology, 2014, 217, 2358-70.	1.7	51
32	Adjustments of global and local hindlimb properties during the terrestrial locomotion of the common quail (<i>Coturnix coturnix</i>). Journal of Experimental Biology, 2014, 217, 1417-1417.	1.7	1
33	Fast lowâ€angle shot diffusion tensor imaging with stimulated echo encoding in the muscle of rabbit shank. NMR in Biomedicine, 2014, 27, 146-157.	2.8	17
34	Trunk orientation causes asymmetries in leg function in small bird terrestrial locomotion. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20141405.	2.6	52
35	Planar covariation of limb elevation angles during bipedal locomotion in common quails (Coturnix) Tj ETQq1 1 0.784314 rgBT /Overlock	1.7	13
36	Work partitioning of transversally loaded muscle: experimentation and simulation. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 217-229.	1.6	51

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37	Kinetic and kinematic adjustments during perturbed walking across visible and camouflaged drops in ground level. Journal of Biomechanics, 2014, 47, 2286-2291.	2.1	58
38	Force depression decays during shortening in the medial gastrocnemius of the rat. Journal of Biomechanics, 2014, 47, 1099-1103.	2.1	4
39	Muscle force depends on the amount of transversal muscle loading. Journal of Biomechanics, 2014, 47, 1822-1828.	2.1	63
40	Coping with disturbances. Human Movement Science, 2013, 32, 971-983.	1.4	12
41	Grounded running in quails: Simulations indicate benefits of observed fixed aperture angle between legs before touch-down. Journal of Theoretical Biology, 2013, 335, 97-107.	1.7	37
42	Three-dimensional surface geometries of the rabbit soleus muscle during contraction: input for biomechanical modelling and its validation. Biomechanics and Modeling in Mechanobiology, 2013, 12, 1205-1220.	2.8	51
43	Adjustments of global and hindlimb local properties during the terrestrial locomotion of the common quail (<i>Coturnix coturnix</i>). Journal of Experimental Biology, 2013, 216, 3906-16.	1.7	46
44	ELECTRO-MECHANICAL DELAY IN HILL-TYPE MUSCLE MODELS. Journal of Mechanics in Medicine and Biology, 2012, 12, 1250085.	0.7	58
45	A QUASI-LINEAR VISCOELASTIC MODEL FOR THE PASSIVE PROPERTIES OF THE HUMAN HIP JOINT. Journal of Mechanics in Medicine and Biology, 2012, 12, 1250015.	0.7	3
46	Hydraulic leg extension is not necessarily the main drive in large spiders. Journal of Experimental Biology, 2012, 215, 578-583.	1.7	27
47	Leg adjustments during running across visible and camouflaged incidental changes in ground level. Journal of Experimental Biology, 2012, 215, 3072-3079.	1.7	46
48	Muscle Preactivation Control: Simulation of Ankle Joint Adjustments at Touchdown During Running on Uneven Ground. Journal of Applied Biomechanics, 2012, 28, 718-725.	0.8	27
49	Alteration of synergistic muscle activity following neuromuscular electrical stimulation of one muscle. Brain and Behavior, 2012, 2, 640-646.	2.2	11
50	A 3D-geometric model for the deformation of a transversally loaded muscle. Journal of Theoretical Biology, 2012, 298, 116-121.	1.7	22
51	What does head movement tell about the minimum number of mechanical degrees of freedom in quiet human stance?. Archive of Applied Mechanics, 2012, 82, 333-344.	2.2	8
52	Vortex re-capturing and kinematics in human underwater undulatory swimming. Human Movement Science, 2011, 30, 998-1007.	1.4	45
53	Watching quiet human stance to shake off its straitjacket. Archive of Applied Mechanics, 2011, 81, 283-302.	2.2	18
54	GROUP SPECIFIC BEHAVIOR OF BIARTICULAR UPPER LEG MUSCLES EXEMPLIFIED BY SLEDGE. Journal of Mechanics in Medicine and Biology, 2011, 11, 1085-1101.	0.7	6

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55	Jumping kinematics in the wandering spider Cupiennius salei. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2010, 196, 421-438.	1.6	33
56	Cupiennius salei: biomechanical properties of the tibiaâ€"metatarsus joint and its flexing muscles. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2010, 180, 199-209.	1.5	30
57	Running on uneven ground: Leg adjustments by muscle pre-activation control. Human Movement Science, 2010, 29, 299-310.	1.4	70
58	Running on uneven ground: Leg adjustments to altered ground level. Human Movement Science, 2010, 29, 578-589.	1.4	70
59	A mechanism accounting for independence on starting length of tension increase in ramp stretches of active skeletal muscle at short half-sarcomere lengths. Journal of Theoretical Biology, 2010, 266, 117-123.	1.7	9
60	Dynamics and kinematics of ant locomotion: do wood ants climb on level surfaces?. Journal of Experimental Biology, 2009, 212, 2426-2435.	1.7	46
61	Comparing inclined locomotion in a ground-living and a climbing ant species: sagittal plane kinematics. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2009, 195, 1011-1020.	1.6	37
62	Describing force-patterns: A method for an analytic classification using the example of sledge jumps. Journal of Biomechanics, 2009, 42, 2616-2619.	2.1	3
63	All leg joints contribute to quiet human stance: A mechanical analysis. Journal of Biomechanics, 2009, 42, 2739-2746.	2.1	64
64	Titin-induced force enhancement and force depression: A â€˜sticky-springâ€™ mechanism in muscle contractions?. Journal of Theoretical Biology, 2009, 259, 350-360.	1.7	124
65	Nonlinearities make a difference: comparison of two common Hill-type models with real muscle. Biological Cybernetics, 2008, 98, 133-143.	1.3	88
66	Characterization of isovelocity extension of activated muscle: A Hill-type model for eccentric contractions and a method for parameter determination. Journal of Theoretical Biology, 2008, 255, 176-187.	1.7	47
67	Transverse pelvic rotation during quiet human stance. Gait and Posture, 2008, 27, 361-367.	1.4	7
68	Running on uneven ground: leg adjustment to vertical steps and self-stability. Journal of Experimental Biology, 2008, 211, 2989-3000.	1.7	107
69	MUSCULOSKELETAL STABILIZATION OF THE ELBOW â€" COMPLEX OR REAL. Journal of Mechanics in Medicine and Biology, 2007, 07, 275-296.	0.7	8
70	Intelligence by mechanics. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2007, 365, 199-220.	3.4	183
71	Compliant leg behaviour explains basic dynamics of walking and running. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 2861-2867.	2.6	744
72	Three-dimensional relation of skin markers to lumbar vertebrae of healthy subjects in different postures measured by open MRI. European Spine Journal, 2006, 15, 742-751.	2.2	42

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73	The tri-segmented limbs of therian mammals: kinematics, dynamics, and self-stabilizationâ€”a review. Journal of Experimental Zoology Part A, Comparative Experimental Biology, 2006, 305A, 935-952.	1.3	85
74	Spring-mass running: simple approximate solution and application to gait stability. Journal of Theoretical Biology, 2005, 232, 315-328.	1.7	238
75	Gait information flow indicates complex motor dysfunction. Physiological Measurement, 2005, 26, 545-554.	2.1	4
76	Lumbar spine intersegmental motion analysis during lifting. Pathophysiology, 2005, 12, 295-302.	2.2	5
77	Human leg design: optimal axial alignment under constraints. Journal of Mathematical Biology, 2004, 48, 623-646.	1.9	38
78	Stabilizing function of antagonistic neuromusculoskeletal systems: an analytical investigation. Biological Cybernetics, 2003, 89, 71-79.	1.3	52
79	Positive force feedback in bouncing gaits?. Proceedings of the Royal Society B: Biological Sciences, 2003, 270, 2173-2183.	2.6	210
80	DEALING WITH SKIN MOTION AND WOBBLING MASSES IN INVERSE DYNAMICS. Journal of Mechanics in Medicine and Biology, 2003, 03, 309-335.	0.7	66
81	A movement criterion for running. Journal of Biomechanics, 2002, 35, 649-655.	2.1	410
82	Joint stiffness of the ankle and the knee in running. Journal of Biomechanics, 2002, 35, 1459-1474.	2.1	169
83	Stable operation of an elastic three-segment leg. Biological Cybernetics, 2001, 84, 365-382.	1.3	96
84	Reduced muscle vascular resistance in intrauterine growth restricted newborn piglets. Experimental and Toxicologic Pathology, 2000, 52, 271-276.	2.1	7
85	Der hydraulische Mechanismus des Spinnenbeines und seine Anwendung fÃ¼r technische Probleme. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 1998, 78, 87-96.	1.6	10
86	Energy Storage by Elastic Mechanisms in the Tail of Large Swimmersâ€”a Re-evaluation. Journal of Theoretical Biology, 1994, 168, 315-321.	1.7	43
87	Bending Moment Distribution along Swimming Fish. Journal of Theoretical Biology, 1994, 168, 337-348.	1.7	40
88	Locomotion Energetics of the Ghost Crab: II. Mechanics of the Centre of Mass During Walking and Running. Journal of Experimental Biology, 1987, 130, 155-174.	1.7	141
89	Stiffness of an arthropod leg joint. Journal of Biomechanics, 1986, 19, 375-384.	2.1	24
90	Strains in the exoskeleton of spiders. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1985, 157, 115-147.	1.6	104