

Hiroaki Hobara

List of Publications by Year in descending order

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Version: 2024-02-01

79
papers

1,701
citations

394421

19
h-index

345221

36
g-index

80
all docs

80
docs citations

80
times ranked

986
citing authors

#	ARTICLE	IF	CITATIONS
1	Knee stiffness is a major determinant of leg stiffness during maximal hopping. <i>Journal of Biomechanics</i> , 2009, 42, 1768-1771.	2.1	430
2	Leg stiffness adjustment for a range of hopping frequencies in humans. <i>Journal of Biomechanics</i> , 2010, 43, 506-511.	2.1	101
3	Changes in muscle activity with increase in leg stiffness during hopping. <i>Neuroscience Letters</i> , 2007, 418, 55-59.	2.1	99
4	Determinants of difference in leg stiffness between endurance- and power-trained athletes. <i>Journal of Biomechanics</i> , 2008, 41, 506-514.	2.1	96
5	Continuous change in spring-mass characteristics during a 400m sprint. <i>Journal of Science and Medicine in Sport</i> , 2010, 13, 256-261.	1.3	74
6	Age-independent and age-dependent sex differences in gait pattern determined by principal component analysis. <i>Gait and Posture</i> , 2016, 46, 11-17.	1.4	74
7	Amputee locomotion: Spring-like leg behavior and stiffness regulation using running-specific prostheses. <i>Journal of Biomechanics</i> , 2013, 46, 2483-2489.	2.1	56
8	Key joint kinematic characteristics of the gait of fallers identified by principal component analysis. <i>Journal of Biomechanics</i> , 2014, 47, 2424-2429.	2.1	53
9	Differences in lower extremity stiffness between endurance-trained athletes and untrained subjects. <i>Journal of Science and Medicine in Sport</i> , 2010, 13, 106-111.	1.3	47
10	Determinant of leg stiffness during hopping is frequency-dependent. <i>European Journal of Applied Physiology</i> , 2011, 111, 2195-2201.	2.5	41
11	Comparison of 3 Methods for Computing Loading Rate during Running. <i>International Journal of Sports Medicine</i> , 2016, 37, 1087-1090.	1.7	39
12	Elite long jumpers with below the knee prostheses approach the board slower, but take-off more effectively than non-amputee athletes. <i>Scientific Reports</i> , 2017, 7, 16058.	3.3	33
13	Amputee locomotion: Lower extremity loading using running-specific prostheses. <i>Gait and Posture</i> , 2014, 39, 386-390.	1.4	30
14	Effect of Hopping Frequency on Bilateral Differences in Leg Stiffness. <i>Journal of Applied Biomechanics</i> , 2013, 29, 55-60.	0.8	26
15	Lower extremity joint kinematics of stair ascent in transfemoral amputees. <i>Prosthetics and Orthotics International</i> , 2011, 35, 467-472.	1.0	24
16	Amputee Locomotion: Ground Reaction Forces During Submaximal Running With Running-Specific Prostheses. <i>Journal of Applied Biomechanics</i> , 2016, 32, 287-294.	0.8	24
17	Sex differences in relationship between passive ankle stiffness and leg stiffness during hopping. <i>Journal of Biomechanics</i> , 2012, 45, 2750-2754.	2.1	21
18	Preferred step frequency minimizes veering during natural human walking. <i>Neuroscience Letters</i> , 2011, 505, 291-293.	2.1	19

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19	A Comparison of Computation Methods for Leg Stiffness During Hopping. <i>Journal of Applied Biomechanics</i> , 2014, 30, 154-159.	0.8	19
20	Ground Reaction Forces During Sprinting in Unilateral Transfemoral Amputees. <i>Journal of Applied Biomechanics</i> , 2017, 33, 406-409.	0.8	19
21	Differences in take-off leg kinetics between horizontal and vertical single-leg rebound jumps. <i>Sports Biomechanics</i> , 2017, 16, 187-200.	1.6	18
22	Spatiotemporal Variables of Able-bodied and Amputee Sprinters in Men's 100-m Sprint. <i>International Journal of Sports Medicine</i> , 2015, 36, 494-497.	1.7	17
23	Leg stiffness during sprinting in transfemoral amputees with running-specific prosthesis. <i>Gait and Posture</i> , 2017, 56, 65-67.	1.4	17
24	Leg stiffness in unilateral transfemoral amputees across a range of running speeds. <i>Journal of Biomechanics</i> , 2019, 84, 67-72.	2.1	16
25	Factors associated with a risk of prosthetic knee buckling during walking in unilateral transfemoral amputees. <i>Gait and Posture</i> , 2020, 77, 69-74.	1.4	16
26	Inter-limb weight transfer strategy during walking after unilateral transfemoral amputation. <i>Scientific Reports</i> , 2021, 11, 4793.	3.3	14
27	Acute effects of static stretching on leg-spring behavior during hopping. <i>European Journal of Applied Physiology</i> , 2011, 111, 2115-2121.	2.5	13
28	Running-specific prostheses: The history, mechanics, and controversy. <i>Journal of the Society of Biomechanisms</i> , 2014, 38, 105-110.	0.0	12
29	The fastest sprinter in 2068 has an artificial limb?. <i>Prosthetics and Orthotics International</i> , 2015, 39, 519-520.	1.0	12
30	Leg stiffness of older and younger individuals over a range of hopping frequencies. <i>Journal of Electromyography and Kinesiology</i> , 2015, 25, 305-309.	1.7	12
31	Normative Spatiotemporal Parameters During 100-m Sprints in Amputee Sprinters Using Running-Specific Prostheses. <i>Journal of Applied Biomechanics</i> , 2016, 32, 93-96.	0.8	12
32	Leg stiffness and sprint ability in amputee sprinters. <i>Prosthetics and Orthotics International</i> , 2012, 36, 312-317.	1.0	11
33	A Comparison of Vertical Stiffness Values Calculated from Different Measures of Center of Mass Displacement in Single-Leg Hopping. <i>Journal of Applied Biomechanics</i> , 2017, 33, 39-47.	0.8	11
34	Three-Dimensional Takeoff Step Kinetics of Long Jumpers with and without a Transtibial Amputation. <i>Medicine and Science in Sports and Exercise</i> , 2019, 51, 716-725.	0.4	11
35	Walking characteristics of runners with a transfemoral or knee-disarticulation prosthesis. <i>Clinical Biomechanics</i> , 2020, 80, 105132.	1.2	11
36	Can forward dynamics simulation with simple model estimate complex phenomena?: Case study on sprinting using running-specific prosthesis. <i>ROBOMECH Journal</i> , 2018, 5, .	1.6	9

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37	Amputee Locomotion. American Journal of Physical Medicine and Rehabilitation, 2019, 98, 182-190.	1.4	9
38	Differences in Spring-Mass Characteristics Between One- and Two-Legged Hopping. Journal of Applied Biomechanics, 2013, 29, 785-789.	0.8	8
39	Step Frequency and Step Length of 200-m Sprint in Able-bodied and Amputee Sprinters. International Journal of Sports Medicine, 2016, 37, 165-168.	1.7	8
40	Innovative alignment of sprinting prostheses for persons with transfemoral amputation: Exploratory study on a gold medal Paralympic athlete. Prosthetics and Orthotics International, 2021, 45, 46-53.	1.0	8
41	Effects of walking speed on magnitude and symmetry of ground reaction forces in individuals with transfemoral prosthesis. Journal of Biomechanics, 2022, 130, 110845.	2.1	8
42	Factors affecting stair-ascent patterns in unilateral transfemoral amputees. Prosthetics and Orthotics International, 2013, 37, 222-226.	1.0	7
43	A Limb-specific Strategy across a Range of Running Speeds in Transfemoral Amputees. Medicine and Science in Sports and Exercise, 2020, 52, 892-899.	0.4	7
44	Unilateral above-knee amputees achieve symmetric mediolateral ground reaction impulse in walking using an asymmetric gait strategy. Journal of Biomechanics, 2021, 115, 110201.	2.1	7
45	Joint moments during sprinting in unilateral transfemoral amputees wearing running-specific prostheses. Biology Open, 2019, 8, .	1.2	6
46	Foot clearance strategy for step-over-step stair climbing in transfemoral amputees. Prosthetics and Orthotics International, 2014, 38, 332-335.	1.0	5
47	How too big shoes affect to the joint kinematics of kids gait pattern?. Footwear Science, 2015, 7, S53-S55.	2.1	5
48	Does amputation side influence sprint performances in athletes using running-specific prostheses?. SpringerPlus, 2015, 4, 670.	1.2	5
49	Vertical stiffness during one-legged hopping with and without using a running-specific prosthesis. Journal of Biomechanics, 2019, 86, 34-39.	2.1	5
50	Long jumpers with and without a transtibial amputation have different three-dimensional centre of mass and joint take-off step kinematics. Royal Society Open Science, 2019, 6, 190107.	2.4	5
51	Anterior-posterior ground reaction forces across a range of running speeds in unilateral transfemoral amputees. Sports Biomechanics, 2024, 23, 69-80.	1.6	5
52	Loading rates in unilateral transfemoral amputees with running-specific prostheses across a range of speeds. Clinical Biomechanics, 2020, 75, 104999.	1.2	5
53	Effect of step frequency on leg stiffness during running in unilateral transfemoral amputees. Scientific Reports, 2020, 10, 5965.	3.3	5
54	Effects of walking speed and prosthetic knee control type on external mechanical work in transfemoral prosthesis users. Journal of Biomechanics, 2022, 134, 110984.	2.1	5

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55	Training Shoes do not Decrease the Negative Work of the Lower Extremity Joints. International Journal of Sports Medicine, 2017, 38, 921-927.	1.7	4
56	Between-limb differences in running technique induces asymmetric negative joint work during running. European Journal of Sport Science, 2019, 19, 757-764.	2.7	4
57	Effects of foot placement on the lower extremity in the swing phase during stair ascending: Implications for transfemoral prostheses. , 2012, , .		3
58	Limb oxygenation during the cold pressor test in spinal cord-injured humans. Clinical Autonomic Research, 2012, 22, 71-78.	2.5	3
59	Spatiotemporal Parameters of 100-m Sprint in Different Levels of Sprinters with Unilateral Transtibial Amputation. PLoS ONE, 2016, 11, e0163712.	2.5	3
60	Ethnicity and spatiotemporal parameters of bilateral and unilateral transtibial amputees in a 100-m sprint. SpringerPlus, 2016, 5, 343.	1.2	3
61	Effects of prophylactic ankle and knee braces on leg stiffness during hopping. Open Access Journal of Sports Medicine, 2017, Volume 8, 107-112.	1.3	3
62	Leg amputation side determines performance in curve sprinting: a case study on a Paralympic medalist. Sports Biomechanics, 2019, 18, 75-87.	1.6	3
63	The Effect of Increasing Jump Steps on Stance Leg Joint Kinetics in Bounding. International Journal of Sports Medicine, 2018, 39, 661-667.	1.7	3
64	Effects of step frequency during running on the magnitude and symmetry of ground reaction forces in individuals with a transfemoral amputation. Journal of NeuroEngineering and Rehabilitation, 2022, 19, 33.	4.6	3
65	Effects of inertial properties of transfemoral prosthesis on leg swing motion during stair ascent. , 2013, 2013, 1591-4.		2
66	Relationship between body height and spatiotemporal parameters during a 100-m sprint in able-bodied and unilateral transtibial sprinters. Prosthetics and Orthotics International, 2017, 41, 492-497.	1.0	2
67	Mechanical stiffness of running-specific prostheses in consideration of clamped position. Mechanical Engineering Letters, 2018, 4, 17-00452-17-00452.	0.6	2
68	Inter-Individual Variability in The Joint Negative Work During Running. Sports Medicine International Open, 2018, 02, E157-E162.	1.1	2
69	Individual Step Characteristics During Sprinting in Unilateral Transtibial Amputees. Journal of Applied Biomechanics, 2018, 34, 509-513.	0.8	2
70	Effect of safety boots with toe spring on foot clearance features during walking. International Journal of Industrial Ergonomics, 2019, 71, 32-36.	2.6	2
71	Estimation Accuracy of Average Walking Speed by Acceleration Signals: Comparison Among Three Different Sensor Locations. Advances in Intelligent Systems and Computing, 2019, , 346-351.	0.6	2
72	Modeling and analysis of individual with lower extremity amputation locomotion using prosthetic feet and running-specific prostheses. , 2017, 2017, 901-904.		1

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73	Differences in spatiotemporal parameters during 200-m sprint between bilateral and unilateral transfemoral amputees. <i>Prosthetics and Orthotics International</i> , 2018, 42, 567-570.	1.0	1
74	Spatiotemporal parameters in sprinters with unilateral and bilateral transfemoral amputations and functional impairments. <i>European Journal of Applied Physiology</i> , 2019, 119, 85-90.	2.5	1
75	Effects of prosthetic design parameters on running performance of a unilateral transfemoral amputee. <i>Journal of Biomechanical Science and Engineering</i> , 2021, , .	0.3	1
76	External Mechanical Work in Runners With Unilateral Transfemoral Amputation. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 793651.	4.1	1
77	Plantar loading in an amputee runner using running-specific prostheses with a rubber sole. <i>Footwear Science</i> , 2015, 7, S65-S66.	2.1	0
78	How to Develop a Sensor System to Assess the Potential Risk of Running-related Injury of the Foot and Ankle?. <i>Clinical Research on Foot & Ankle</i> , 2017, 05, .	0.1	0
79	Estimation Accuracy of Step Length by Acceleration Signals: Comparison Among Three Different Sensor Locations. <i>Advances in Intelligent Systems and Computing</i> , 2019, , 24-30.	0.6	0