Jonathan Bates Dingwell

List of Publications by Year
in descending order

85	6,706	76031 42	75989 78
papers	citations	h-index	g-index
91	91	91	4309
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Viability, task switching, and fall avoidance of the simplest dynamic walker. Scientific Reports, 2022, 12, .	1.6	9
2	How persons with transtibial amputation regulate lateral stepping while walking in laterally destabilizing environments. Gait and Posture, 2021, 83, 88-95.	0.6	7
3	Walking humans trade off different task goals to regulate lateral stepping. Journal of Biomechanics, 2021, 119, 110314.	0.9	12
4	Effects of age, physical and self-perceived balance abilities on lateral stepping adjustments during competing lateral balance tasks. Gait and Posture, 2021, 88, 311-317.	0.6	10
5	Task-level regulation enhances global stability of the simplest dynamic walker. Journal of the Royal Society Interface, 2020, 17, 20200278.	1.5	13
6	How healthy older adults regulate lateral foot placement while walking in laterally destabilizing environments. Journal of Biomechanics, 2020, 104, 109714.	0.9	19
7	Cross-Sectional Study Using Virtual Reality to Measure Cognition. Frontiers in Sports and Active Living, 2020, 2, 543676.	0.9	2
8	Correlations of pelvis state to foot placement do not imply within-step active control. Journal of Biomechanics, 2019, 97, 109375.	0.9	19
9	Humans use multi-objective control to regulate lateral foot placement when walking. PLoS Computational Biology, 2019, 15, e1006850.	1.5	32
10	Healthy individuals are more maneuverable when walking slower while navigating a virtual obstacle course. Gait and Posture, 2018, 61, 466-472.	0.6	11
11	Cognitively Demanding Object Negotiation While Walking and Texting. Scientific Reports, 2018, 8, 17880.	1.6	9
12	Humans control stride-to-stride stepping movements differently for walking and running, independent of speed. Journal of Biomechanics, 2018, 76, 144-151.	0.9	20
13	How humans use visual optic flow to regulate stepping during walking. Gait and Posture, 2017, 57, 15-20.	0.6	29
14	Increased gait variability may not imply impaired stride-to-stride control of walking in healthy older adults. Gait and Posture, 2017, 55, 131-137.	0.6	53
15	Obstacle Avoidance and Secondary Task Performance During Locomotion. Journal of Vision, 2017, 17, 708.	0.1	0
16	Use of Perturbation-Based Gait Training in a Virtual Environment to Address Mediolateral Instability in an Individual With Unilateral Transfemoral Amputation. Physical Therapy, 2016, 96, 1896-1904.	1.1	20
17	Adaptability of stride-to-stride control of stepping movements in human walking. Journal of Biomechanics, 2016, 49, 229-237.	0.9	34
18	Error Correction and the Structure of Inter-Trial Fluctuations in a Redundant Movement Task. PLoS Computational Biology, 2016, 12, e1005118.	1.5	31

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19	Differential Changes with Age in Multiscale Entropy of Electromyography Signals from Leg Muscles during Treadmill Walking. PLoS ONE, 2016, 11, e0162034.	1.1	31
20	Reliability and Minimum Detectable Change of Temporal-Spatial, Kinematic, and Dynamic Stability Measures during Perturbed Gait. PLoS ONE, 2015, 10, e0142083.	1.1	21
21	Identifying Stride-To-Stride Control Strategies in Human Treadmill Walking. PLoS ONE, 2015, 10, e0124879.	1.1	68
22	Mediolateral angular momentum changes in persons with amputation during perturbed walking. Gait and Posture, 2015, 41, 795-800.	0.6	40
23	Effects of local and widespread muscle fatigue on movement timing. Experimental Brain Research, 2014, 232, 3939-3948.	0.7	20
24	Dynamic stability of superior vs. inferior body segments in individuals with transtibial amputation walking in destabilizing environments. Journal of Biomechanics, 2014, 47, 3072-3079.	0.9	20
25	Margins of stability in young adults with traumatic transtibial amputation walking in destabilizing environments. Journal of Biomechanics, 2014, 47, 1138-1143.	0.9	56
26	Dynamic stability of individuals with transtibial amputation walking in destabilizing environments. Journal of Biomechanics, 2014, 47, 1675-1681.	0.9	41
27	Dynamic instability during post-stroke hemiparetic walking. Gait and Posture, 2014, 40, 457-463.	0.6	96
28	The Dynamical Analysis of Inter-Trial Fluctuations Near Goal Equivalent Manifolds. Advances in Experimental Medicine and Biology, 2014, 826, 125-145.	0.8	6
29	Movement variability near goal equivalent manifolds: Fluctuations, control, and model-based analysis. Human Movement Science, 2013, 32, 899-923.	0.6	66
30	Influence of neuromuscular noise and walking speed on fall risk and dynamic stability in a 3D dynamic walking model. Journal of Biomechanics, 2013, 46, 1722-1728.	0.9	10
31	Frontal plane dynamic margins of stability in individuals with and without transtibial amputation walking on a loose rock surface. Gait and Posture, 2013, 38, 570-575.	0.6	72
32	Using dynamic walking models to identify factors that contribute to increased risk of falling in older adults. Human Movement Science, 2013, 32, 984-996.	0.6	33
33	Trial-to-trial dynamics and learning in a generalized, redundant reaching task. Journal of Neurophysiology, 2013, 109, 225-237.	0.9	30
34	Proximal Versus Distal Control of Two-Joint Planar Reaching Movements in the Presence of Neuromuscular Noise. Journal of Biomechanical Engineering, 2012, 134, 061007.	0.6	11
35	Dynamic margins of stability during human walking in destabilizing environments. Journal of Biomechanics, 2012, 45, 1053-1059.	0.9	184
36	Amplitude effects of medio-lateral mechanical and visual perturbations on gait. Journal of Biomechanics, 2012, 45, 1979-1986.	0.9	23

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37	Effects of perturbation magnitude on dynamic stability when walking in destabilizing environments. Journal of Biomechanics, 2012, 45, 2084-2091.	0.9	41
38	Kinematic strategies for walking across a destabilizing rock surface. Gait and Posture, 2012, 35, 36-42.	0.6	94
39	Voluntarily changing step length or step width affects dynamic stability of human walking. Gait and Posture, 2012, 35, 472-477.	0.6	94
40	Gait characteristics of individuals with transtibial amputations walking on a destabilizing rock surface. Gait and Posture, 2012, 36, 33-39.	0.6	61
41	Voluntary changes in step width and step length during human walking affect dynamic margins of stability. Gait and Posture, 2012, 36, 219-224.	0.6	124
42	Comparison of walking overground and in a Computer Assisted Rehabilitation Environment (CAREN) in individuals with and without transtibial amputation. Journal of NeuroEngineering and Rehabilitation, 2012, 9, 81.	2.4	52
43	The effects of muscle fatigue and movement height on movement stability and variability. Experimental Brain Research, 2011, 209, 525-536.	0.7	49
44	Dynamic stability of human walking in visually and mechanically destabilizing environments. Journal of Biomechanics, 2011, 44, 644-649.	0.9	143
45	Influence of simulated neuromuscular noise on the dynamic stability and fall risk of a 3D dynamic walking model. Journal of Biomechanics, 2011, 44, 1514-1520.	0.9	39
46	Nonlinear Smooth Orthogonal Decomposition of Kinematic Features of Sawing Reconstructs Muscle Fatigue Evolution as Indicated by Electromyography. Journal of Biomechanical Engineering, 2011, 133, 031009.	0.6	8
47	Linear and Nonlinear Smooth Orthogonal Decomposition to Reconstruct Local Fatigue Dynamics: A Comparison. , 2010, , .		0
48	Muscle fatigue does not lead to increased instability of upper extremity repetitive movements. Journal of Biomechanics, 2010, 43, 913-919.	0.9	29
49	Walking variability during continuous pseudo-random oscillations of the support surface and visual field. Journal of Biomechanics, 2010, 43, 1470-1475.	0.9	157
50	Influence of simulated neuromuscular noise on movement variability and fall risk in a 3D dynamic walking model. Journal of Biomechanics, 2010, 43, 2929-2935.	0.9	52
51	Do Humans Optimally Exploit Redundancy to Control Step Variability in Walking?. PLoS Computational Biology, 2010, 6, e1000856.	1.5	167
52	Re-interpreting detrended fluctuation analyses of stride-to-stride variability in human walking. Gait and Posture, 2010, 32, 348-353.	0.6	145
53	Dynamical Analysis of Sawing Motion Tracks Muscle Fatigue Evolution. , 2009, , .		1
54	Slow-Time Changes in Human EMG Muscle Fatigue States Are Fully Represented in Movement Kinematics. Journal of Biomechanical Engineering, 2009, 131, 021004.	0.6	11

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55	Dynamics and stability of muscle activations during walking in healthy young and older adults. Journal of Biomechanics, 2009, 42, 2231-2237.	0.9	84
56	Comparison of different state space definitions for local dynamic stability analyses. Journal of Biomechanics, 2009, 42, 1345-1349.	0.9	56
57	Dynamic stability of superior vs. inferior segments during walking in young and older adults. Gait and Posture, 2009, 30, 260-263.	0.6	102
58	Tracking Muscle Fatigue Markers Through Nonlinear and Multivariate Analysis of Motion Kinematics. , 2009, , .		0
59	The effects of neuromuscular fatigue on task performance during repetitive goal-directed movements. Experimental Brain Research, 2008, 187, 573-585.	0.7	112
60	Effects of an attention demanding task on dynamic stability during treadmill walking. Journal of NeuroEngineering and Rehabilitation, 2008, 5, 12.	2.4	50
61	Effects of walking speed, strength and range of motion on gait stability in healthy older adults. Journal of Biomechanics, 2008, 41, 2899-2905.	0.9	266
62	Changes in Muscle Activity and Kinematics of Highly Trained Cyclists During Fatigue. IEEE Transactions on Biomedical Engineering, 2008, 55, 2666-2674.	2.5	84
63	Separating the effects of age and walking speed on gait variability. Gait and Posture, 2008, 27, 572-577.	0.6	349
64	Changes in the Dynamic Stability of Walking in Active Healthy Older Adults Independent of Changes in Walking Speed. , 2008, , .		0
65	Differences Between Local and Orbital Dynamic Stability During Human Walking. Journal of Biomechanical Engineering, 2007, 129, 586-593.	0.6	151
66	Dynamic Stability of Passive Dynamic Walking on an Irregular Surface. Journal of Biomechanical Engineering, 2007, 129, 802-810.	0.6	85
67	Peripheral neuropathy does not alter the fractal dynamics of stride intervals of gait. Journal of Applied Physiology, 2007, 102, 965-971.	1.2	72
68	BOTH HUMAN AND PASSIVE WALKING ARE BOTH LOCALLY UNSTABLE AND ORBITALLY STABLE. Journal of Biomechanics, 2007, 40, S205.	0.9	0
69	Possible biomechanical origins of the long-range correlations in stride intervals of walking. Physica A: Statistical Mechanics and Its Applications, 2007, 380, 259-270.	1.2	64
70	A nonlinear approach to tracking slow-time-scale changes in movement kinematics. Journal of Biomechanics, 2007, 40, 1629-1634.	0.9	12
71	The effects of sensory loss and walking speed on the orbital dynamic stability of human walking. Journal of Biomechanics, 2007, 40, 1723-1730.	0.9	61
72	Kinematic Variability, Local, and Orbital Stability as Predictors of Falls in Passive Dynamic Walking. , 2007, , .		0

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73	Slow-Time Changes in Human Muscle Fatigue Are Fully Represented in Movement Kinematics. , 2007, , .		2
74	Intra-session reliability of local dynamic stability of walking. Gait and Posture, 2006, 24, 386-390.	0.6	61
75	Kinematic variability and local dynamic stability of upper body motions when walking at different speeds. Journal of Biomechanics, 2006, 39, 444-452.	0.9	512
76	A direct comparison of local dynamic stability during unperturbed standing and walking. Experimental Brain Research, 2006, 172, 35-48.	0.7	92
77	Experimentally Confirmed Mathematical Model for Human Control of a Non-Rigid Object. Journal of Neurophysiology, 2004, 91, 1158-1170.	0.9	87
78	Manipulating Objects With Internal Degrees of Freedom: Evidence for Model-Based Control. Journal of Neurophysiology, 2002, 88, 222-235.	0.9	87
79	Increased variability of continuous overground walking in neuropathic patients is only indirectly related to sensory loss. Gait and Posture, 2001, 14, 1-10.	0.6	138
80	Learning to Move Amid Uncertainty. Journal of Neurophysiology, 2001, 86, 971-985.	0.9	361
81	Local Dynamic Stability Versus Kinematic Variability of Continuous Overground and Treadmill Walking. Journal of Biomechanical Engineering, 2001, 123, 27-32.	0.6	536
82	Slower speeds in patients with diabetic neuropathy lead to improved local dynamic stability of continuous overground walking. Journal of Biomechanics, 2000, 33, 1269-1277.	0.9	215
83	Nonlinear time series analysis of normal and pathological human walking. Chaos, 2000, 10, 848.	1.0	494
84	Neuropathic gait shows only trends towards increased variability of sagittal plane kinematics during treadmill locomotion. Gait and Posture, 1999, 10, 21-29.	0.6	78
85	A Rehabilitation Treadmill With Software for Providing Real-Time Gait Analysis and Visual Feedback. Journal of Biomechanical Engineering, 1996, 118, 253-255.	0.6	26