Richard Baker

List of Publications by Year
in descending order

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111 papers	7,516 citations	61687 45 h-index	66518 82 g-index
119 all docs	119 docs citations	119 times ranked	5825 citing authors

#	Article	IF	Citations
1	Higher knee contact forces might underlie increased osteoarthritis rates in high functioning amputees: A pilot study. Journal of Orthopaedic Research, 2021, 39, 850-860.	1.2	13
2	Effect of different walking speeds on joint and muscle force estimation using AnyBody and OpenSim. Gait and Posture, 2021, 90, 197-203.	0.6	12
3	Using the spring-mass model for running: Force-length curves and foot-strike patterns. Gait and Posture, 2020, 80, 318-323.	0.6	3
4	Muscle force estimation in clinical gait analysis using AnyBody and OpenSim. Journal of Biomechanics, 2019, 86, 55-63.	0.9	55
5	A systematic review of approaches to modelling lower limb muscle forces during gait: Applicability to clinical gait analyses. Gait and Posture, 2018, 61, 353-361.	0.6	32
6	The influence of standards and clinical guidelines on prosthetic and orthotic service quality: a scoping review. Disability and Rehabilitation, 2018, 40, 2458-2465.	0.9	8
7	The influence of staff training and education on prosthetic and orthotic service quality. Prosthetics and Orthotics International, 2018, 42, 258-264.	0.5	6
8	Estimated landmark calibration of biomechanical models for inverse kinematics. Medical Engineering and Physics, 2018, 51, 79-83.	0.8	8
9	Estimation of muscle activation during different walking speeds with two mathematical approaches compared to surface EMG. Gait and Posture, 2018, 64, 266-273.	0.6	26
10	The Conventional Gait Model - Success and Limitations. , 2018, , 489-508.		14
11	A Lagrange-based generalised formulation for the equations of motion of simple walking models. Journal of Biomechanics, 2017, 55, 139-143.	0.9	16
12	An open source implementation of the Conventional Gait Model in Python. Gait and Posture, 2017, 57, 236.	0.6	8
13	Energy flow analysis of amputee walking shows a proximally-directed transfer of energy in intact limbs, compared to a distally-directed transfer in prosthetic limbs at push-off. Medical Engineering and Physics, 2017, 39, 73-82.	0.8	7
14	Temporal Spatial and Metabolic Measures of Walking in Highly Functional Individuals With Lower Limb Amputations. Archives of Physical Medicine and Rehabilitation, 2017, 98, 1389-1399.	0.5	73
15	Medial-lateral centre of mass displacement and base of support are equally good predictors of metabolic cost in amputee walking. Gait and Posture, 2017, 51, 41-46.	0.6	23
16	The Conventional Gait Model - Success and Limitations. , 2017, , 1-19.		16
17	Predicting the location of the hip joint centres, impact of age group and sex. Scientific Reports, 2016, 6, 37707.	1.6	48
18	Injection frequency of botulinum toxin A for spastic equinus: a randomized clinical trial. Developmental Medicine and Child Neurology, 2016, 58, 750-757.	1.1	35

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19	Comprehensive non-dimensional normalization of gait data. Gait and Posture, 2016, 44, 68-73.	0.6	60
20	Proximal placement of lateral thigh skin markers reduces soft tissue artefact during normal gait using the Conventional Gait Model. Computer Methods in Biomechanics and Biomedical Engineering, 2016, 19, 1497-1504.	0.9	19
21	The effects of progressive resistance training on daily physical activity in young people with cerebral palsy: a randomised controlled trial. Disability and Rehabilitation, 2016, 38, 620-626.	0.9	20
22	The Success and Limitations. , 2016, , 1-19.		1
23	Gait analysis: clinical facts. European Journal of Physical and Rehabilitation Medicine, 2016, 52, 560-74.	1.1	60
24	The use of instrumented gait analysis for individually tailored interdisciplinary interventions in children with cerebral palsy: a randomised controlled trial protocol. BMC Pediatrics, 2015, 15, 202.	0.7	15
25	Motor Functional Evaluation from Physiology and Biomechanics to Clinical and Training Application. BioMed Research International, 2015, 2015, 1-2.	0.9	0
26	A Forward Dynamic Modelling Investigation of Cause-and-Effect Relationships in Single Support Phase of Human Walking. Computational and Mathematical Methods in Medicine, 2015, 2015, 1-9.	0.7	7
27	Recommendations for reporting gait studies. Gait and Posture, 2015, 41, 339-340.	0.6	5
28	The strengths and weaknesses of inverted pendulum models of human walking. Gait and Posture, 2015, 41, 389-394.	0.6	31
29	Gross motor function is an important predictor of daily physical activity in young people with bilateral spastic cerebral palsy. Developmental Medicine and Child Neurology, 2014, 56, 1163-1171.	1.1	28
30	Gait profile score and movement analysis profile in patients with Parkinson's disease during concurrent cognitive load. Brazilian Journal of Physical Therapy, 2014, 18, 315-322.	1.1	25
31	Reproducibility of an instrumented measure for passive ankle dorsiflexion in conscious and anaesthetized children with cerebral palsy. Developmental Medicine and Child Neurology, 2014, 56, 378-385.	1.1	7
32	Optimal markersâ€™ placement on the thorax for clinical gait analysis. Gait and Posture, 2014, 39, 147-153.	0.6	32
33	Validation of GDI, GPS and GVS for use in Parkinson's disease through evaluation of effects of subthalamic deep brain stimulation and levodopa. Gait and Posture, 2014, 39, 1142-1145.	0.6	22
34	The comparison of normative reference data from different gait analysis services. Gait and Posture, 2014, 40, 286-290.	0.6	45
35	Quantification of pelvic soft tissue artifact in multiple static positions. Gait and Posture, 2014, 39, 712-717.	0.6	33
36	The effects of botulinum toxin injection frequency on calf muscle growth in young children with spastic cerebral palsy: A 12-month prospective study. Journal of Children's Orthopaedics, 2013, 7, 425-433.	0.4	49

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37	Explaining the variability improvements in gait quality as a result of single event multi-level surgery in cerebral palsy. Gait and Posture, 2013, 38, 455-460.	0.6	61
38	A new method for measuring AFO deformation, tibial and footwear movement in three dimensional gait analysis. Gait and Posture, 2013, 38, 1074-1076.	0.6	3
39	Are Results After Single-event Multilevel Surgery in Cerebral Palsy Durable?. Clinical Orthopaedics and Related Research, 2013, 471, 1028-1038.	0.7	33
40	Progressive resistance training and mobilityâ€•related function in young people with cerebral palsy: a randomized controlled trial. Developmental Medicine and Child Neurology, 2013, 55, 806-812.	1.1	94
41	The minimal clinically important difference for the Gait Profile Score. Gait and Posture, 2012, 35, 612-615.	0.6	163
42	Potential of lower-limb muscles to accelerate the body during cerebral palsy gait. Gait and Posture, 2012, 36, 194-200.	0.6	25
43	A comparison of hip joint centre localisation techniques with 3-DUS for clinical gait analysis in children with cerebral palsy. Gait and Posture, 2012, 36, 282-286.	0.6	37
44	Multilevel Surgery Improves Gait in Spastic Hemiplegia But Does Not Resolve Hip Dysplasia. Clinical Orthopaedics and Related Research, 2012, 470, 1294-1302.	0.7	33
45	Clinical Gait Analysis. , 2012, , 419-444.		0
46	Association between isometric muscle strength and gait joint kinetics in adolescents and young adults with cerebral palsy. Gait and Posture, 2011, 33, 326-332.	0.6	66
47	Tibialis anterior tendon shortening in combination with Achilles tendon lengthening in spastic equinus in cerebral palsy. Gait and Posture, 2011, 33, 152-157.	0.6	66
48	Hip joint centre localization: Evaluation on normal subjects in the context of gait analysis. Gait and Posture, 2011, 34, 324-328.	0.6	70
49	Unilateral cerebral palsy: a population-based study of gait and motor function. Developmental Medicine and Child Neurology, 2011, 53, 429-435.	1.1	29
50	Medial gastrocnemius muscle volume and fascicle length in children aged 2 to 5â€ƒyears with cerebral palsy. Developmental Medicine and Child Neurology, 2011, 53, 543-548.	1.1	165
51	Functional decline in children undergoing selective dorsal rhizotomy after age 10. Developmental Medicine and Child Neurology, 2011, 53, 677-677.	1.1	4
52	Globographic visualisation of three dimensional joint angles. Journal of Biomechanics, 2011, 44, 1885-1891.	0.9	18
53	Accuracy of generic musculoskeletal models in predicting the functional roles of muscles in human gait. Journal of Biomechanics, 2011, 44, 2096-2105.	0.9	92
54	Single-Event Multilevel Surgery in Children with Spastic Diplegia. Journal of Bone and Joint Surgery - Series A, 2011, 93, 451-460.	1.4	166

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55	Non-invasive assessment of soft-tissue artifact and its effect on knee joint kinematics during functional activity. Journal of Biomechanics, 2010, 43, 1292-1301.	0.9	185
56	GaitaBase: Web-based repository system for gait analysis. Computers in Biology and Medicine, 2010, 40, 201-207.	3.9	22
57	Does parent report measure performance? A study of the construct validity of the Functional Mobility Scale. Developmental Medicine and Child Neurology, 2010, 52, 181-185.	1.1	43
58	Reliability of the Functional Mobility Scale for Children with Cerebral Palsy. Physical and Occupational Therapy in Pediatrics, 2010, 30, 139-149.	0.8	81
59	A Systematic Review of Common Physiotherapy Interventions in School-Aged Children with Cerebral Palsy. Physical and Occupational Therapy in Pediatrics, 2010, 30, 294-312.	0.8	63
60	Quantification of soft tissue artifact in lower limb human motion analysis: A systematic review. Gait and Posture, 2010, 31, 1-8.	0.6	256
61	Calculation of joint moments following foot contact across two force plates. Gait and Posture, 2010, 31, 292-293.	0.6	6
62	Correlations of the Gait Profile Score and the Movement Analysis Profile relative to clinical judgments. Gait and Posture, 2010, 32, 129-132.	0.6	74
63	Validation of 3-D freehand ultrasound for the determination of the hip joint centre. Gait and Posture, 2010, 31, 530-532.	0.6	33
64	A Systematic Review to Determine Best Practice Reporting Guidelines for AFO Interventions in Studies Involving Children with Cerebral Palsy. Prosthetics and Orthotics International, 2010, 34, 129-145.	0.5	55
65	A classification system for hip disease in cerebral palsy. Developmental Medicine and Child Neurology, 2009, 51, 183-192.	1.1	72
66	Determination of the optimal locations of surface-mounted markers on the tibial segment. Gait and Posture, 2009, 29, 42-48.	0.6	41
67	The reliability of three-dimensional kinematic gait measurements: A systematic review. Gait and Posture, 2009, 29, 360-369.	0.6	808
68	Measuring distance walked and step count in children with cerebral palsy: An evaluation of two portable activity monitors. Gait and Posture, 2009, 29, 304-310.	0.6	40
69	Biomechanical response to hamstring muscle strain injury. Gait and Posture, 2009, 29, 332-338.	0.6	172
70	The Gait Profile Score and Movement Analysis Profile. Gait and Posture, 2009, 30, 265-269.	0.6	559
71	Optimal markersâ€™ placement on the thorax for clinical gait analysisâ€”A preliminary study. Gait and Posture, 2009, 30, S54.	0.6	3
72	Correlations of the Gait Profile Score (GPS) and the Movement Analysis Profile (MAP) relative to clinical judgments. Gait and Posture, 2009, 30, S58-S59.	0.6	0

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73	Footstep adjustments used to turn during walking in Parkinson's disease. Movement Disorders, 2008, 23, 817-823.	2.2	59
74	Head and trunk rotation during walking turns in Parkinson's disease. Movement Disorders, 2008, 23, 1391-1397.	2.2	70
75	A systematic review of measures of activity limitation for children with cerebral palsy. Developmental Medicine and Child Neurology, 2008, 50, 190-198.	1.1	125
76	Influence of thigh cluster configuration on the estimation of hip axial rotation. Gait and Posture, 2008, 27, 60-69.	0.6	41
77	Proximal femoral geometry in cerebral palsy. Journal of Bone and Joint Surgery: British Volume, 2008, 90-B, 1372-1379.	3.4	152
78	Gait classification in children with cerebral palsy: A systematic review. Gait and Posture, 2007, 25, 140-152.	0.6	156
79	On the expression of joint moments during gait. Gait and Posture, 2007, 25, 440-452.	0.6	136
80	The history of gait analysis before the advent of modern computers. Gait and Posture, 2007, 26, 331-342.	0.6	134
81	Differences in lower limb transverse plane joint moments during gait when expressed in two alternative reference frames. Journal of Biomechanics, 2007, 40, 9-19.	0.9	29
82	The Functional Mobility Scale: ability to detect change following single event multilevel surgery. Developmental Medicine and Child Neurology, 2007, 49, 603-607.	1.1	102
83	Correction of Severe Crouch Gait in Patients with Spastic Diplegia with Use of Multilevel Orthopaedic Surgery. Journal of Bone and Joint Surgery - Series A, 2006, 88, 2653-2664.	1.4	130
84	A nondimensional normalization scheme for oxygen utilization data. Gait and Posture, 2006, 24, 14-22.	0.6	83
85	Defining the knee joint flexionâ€“extension axis for purposes of quantitative gait analysis: An evaluation of methods. Gait and Posture, 2006, 24, 100-109.	0.6	104
86	A method for comparing manual muscle strength measurements with joint moments during walking. Gait and Posture, 2006, 24, 406-411.	0.6	41
87	Foot models for clinical gait analysis. Gait and Posture, 2006, 23, 399-400.	0.6	40
88	Clinician agreement on gait pattern ratings in children with spastic hemiplegia. Developmental Medicine and Child Neurology, 2006, 48, 429.	1.1	20
89	Gait analysis methods in rehabilitation. , 2006, 3, 4.		347
90	Sagittal plane movement at the tibiofemoral joint influences patellofemoral joint structure in healthy adult women. Osteoarthritis and Cartilage, 2006, 14, 331-336.	0.6	13

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91	Foot rotationâ€"A potential target to modify the knee adduction moment. Journal of Science and Medicine in Sport, 2006, 9, 67-71.	0.6	41
92	Multilevel orthopaedic surgery in group IV spastic hemiplegia. Journal of Bone and Joint Surgery: British Volume, 2005, 87-B, 548-555.	3.4	36
93	Two methods of calculating thorax kinematics in children with myelomeningocele. Clinical Biomechanics, 2004, 19, 1060-1065.	0.5	51
94	Gait Patterns After Fracture of the Femoral Shaft in Children, Managed by External Fixation or Early Hip Spica Cast. Journal of Pediatric Orthopaedics, 2004, 24, 463-471.	0.6	20
95	ISB recommendation on definition of joint coordinate systems for the reporting of human joint motionâ€"part I: ankle, hip and spine. Journal of Biomechanics, 2003, 36, 300-302.	0.9	47
96	Femoral derotation osteotomy in spastic diplegia. Journal of Bone and Joint Surgery: British Volume, 2003, 85-B, 265-272.	3.4	112
97	Title is missing!. Journal of Pediatric Orthopaedics, 2003, 23, 302-307.	0.6	56
98	The influence of shape and sliding distance of femoral head movement loci on the wear of acetabular cups in total hip arthroplasty. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2002, 216, 393-402.	1.0	19
99	Estimating mechanical cost in subjects with myelomeningocele. Gait and Posture, 2002, 15, 25-31.	0.6	15
100	Botulinum toxin treatment of spasticity in diplegic cerebral palsy: a randomized, doubleâ€blind, placeboâ€controlled, doseâ€ranging study. Developmental Medicine and Child Neurology, 2002, 44, 666-675.	1.1	116
101	Effect of a rigid ankleâ€"foot orthosis on hamstring length in children with hemiplegia. Developmental Medicine and Child Neurology, 2002, 44, 51.	1.1	20
102	Pelvic angles: a mathematically rigorous definition which is consistent with a conventional clinical understanding of the terms. Gait and Posture, 2001, 13, 1-6.	0.6	131
103	Reducing the variability of oxygen consumption measurements. Gait and Posture, 2001, 13, 202-209.	0.6	38
104	Title is missing!. Journal of Pediatric Orthopaedics, 2001, 21, 383-387.	0.6	17
105	Movement loci of selected points on the femoral head for individual total hip arthroplasty patients using three-dimensional computer simulation. Journal of Arthroplasty, 2000, 15, 909-915.	1.5	26
106	The variability of goniometric measurements in ambulatory children with spastic cerebral palsy. Gait and Posture, 2000, 12, 114-121.	0.6	116
107	Comparing methods of estimating the total body centre of mass in three-dimensions in normal and pathological gaits. Human Movement Science, 1999, 18, 637-646.	0.6	84
108	A new approach to determine the hip rotation profile from clinical gait analysis data. Human Movement Science, 1999, 18, 655-667.	0.6	92

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109	The effect of botulinum toxin A on gastrocnemius length: magnitude and duration of response. Developmental Medicine and Child Neurology, 1999, 41, 226-232.	1.1	138
110	Defining gastrocnemius length in ambulant children. Gait and Posture, 1997, 6, 9-17.	0.6	32
111	The future of biomedical engineering. Journal of Biomedical Engineering, 1991, 13, 267-268.	0.7	3