Reed Ferber

List of Publications by Year
in descending order

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113 papers	5,474 citations	125106 35 h-index	100535 70 g-index
115 all docs	115 docs citations	115 times ranked	4527 citing authors

#	Article	IF	Citations
1	Distance running stride-to-stride variability for sagittal plane joint angles. Sports Biomechanics, 2022, 21, 966-980.	0.8	3
2	Is This the Real Life, or Is This Just Laboratory? A Scoping Review of IMU-Based Running Gait Analysis. Sensors, 2022, 22, 1722.	2.1	35
3	Sex differences in the regularity and symmetry of gait in older adults with and without knee osteoarthritis. Gait and Posture, 2022, 95, 192-197.	0.6	4
4	Predicting knee adduction moment response to gait retraining with minimal clinical data. PLoS Computational Biology, 2022, 18, e1009500.	1.5	2
5	A generalised smoothing approach for continuous, planar, inverse kinematics problems. Journal of Biomechanics, 2022, 141, 111158.	0.9	1
6	Between-Day Reliability of Commonly Used IMU Features during a Fatiguing Run and the Effect of Speed. Sensors, 2022, 22, 4129.	2.1	1
7	Estimation of kinematics from inertial measurement units using a combined deep learning and optimization framework. Journal of Biomechanics, 2021, 116, 110229.	0.9	42
8	Comparing the performance of Bayesian and least-squares approaches for inverse kinematics problems. Journal of Biomechanics, 2021, 126, 110597.	0.9	2
9	Kinematic and Coordination Variability in Individuals With Acute and Chronic Patellofemoral Pain. Journal of Applied Biomechanics, 2021, 37, 463-470.	0.3	3
10	Evaluation of COVID-19 Restrictions on Distance Runners' Training Habits Using Wearable Trackers. Frontiers in Sports and Active Living, 2021, 3, 812214.	0.9	2
11	Runnersâ€™ Perspectives on â€˜Smartâ€™ Wearable Technology and Its Use for Preventing Injury. International Journal of Human-Computer Interaction, 2020, 36, 31-40.	3.3	35
12	A hierarchical cluster analysis to determine whether injured runners exhibit similar kinematic gait patterns. Scandinavian Journal of Medicine and Science in Sports, 2020, 30, 732-740.	1.3	38
13	Wearable activity trackers and mobilization after major head and neck cancer surgery: You can't improve what you don't measure. International Journal of Surgery, 2020, 84, 120-124.	1.1	7
14	New Considerations for Collecting Biomechanical Data Using Wearable Sensors: The Effect of Different Running Environments. Frontiers in Bioengineering and Biotechnology, 2020, 8, 86.	2.0	18
15	The effects of midfoot strike gait retraining on impact loading and joint stiffness. Physical Therapy in Sport, 2020, 42, 139-145.	0.8	13
16	Validity and reliability of a smartphone motion analysis app for lower limb kinematics during treadmill running. Physical Therapy in Sport, 2020, 43, 27-35.	0.8	32
17	Effects of iliotibial band syndrome on pain sensitivity and gait kinematics in female runners: A preliminary study. Clinical Biomechanics, 2020, 76, 105017.	0.5	7
18	Fatigue-Related Changes in Running Gait Patterns Persist in the Days Following a Marathon Race. Journal of Sport Rehabilitation, 2020, 29, 934-941.	0.4	10

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19	Running patterns for male and female competitive and recreational runners based on accelerometer data. Journal of Sports Sciences, 2019, 37, 204-211.	1.0	57
20	Risk Inference Models for Security Applications. , 2019, , .		0
21	New Considerations for Collecting Biomechanical Data Using Wearable Sensors: How Does Inclination Influence the Number of Runs Needed to Determine a Stable Running Gait Pattern?. Sensors, 2019, 19, 2516.	2.1	12
22	The biomechanical difference between running with traditional and 3D printed orthoses. Journal of Sports Sciences, 2019, 37, 2191-2197.	1.0	21
23	The effect of running speed on joint coupling coordination and its variability in recreational runners. Human Movement Science, 2019, 66, 449-458.	0.6	20
24	Effects of Caffeine on Exertion, Skill Performance, and Physicality in Ice Hockey. International Journal of Sports Physiology and Performance, 2019, 14, 1422-1429.	1.1	7
25	Automated Accelerometer-Based Gait Event Detection During Multiple Running Conditions. Sensors, 2019, 19, 1483.	2.1	49
26	Walking with head-mounted virtual and augmented reality devices: Effects on position control and gait biomechanics. PLoS ONE, 2019, 14, e0225972.	1.1	34
27	New considerations for collecting biomechanical data using wearable sensors: Number of level runs to define a stable running pattern with a single IMU. Journal of Biomechanics, 2019, 85, 187-192.	0.9	24
28	Subject-specific and group-based running pattern classification using a single wearable sensor. Journal of Biomechanics, 2019, 84, 227-233.	0.9	36
29	Validity of a novel method to measure vertical oscillation during running using a depth camera. Journal of Biomechanics, 2019, 85, 182-186.	0.9	6
30	Patellofemoral joint stress measured across three different running techniques. Gait and Posture, 2019, 68, 37-43.	0.6	34
31	Classification of higher- and lower-mileage runners based on running kinematics. Journal of Sport and Health Science, 2019, 8, 249-257.	3.3	27
32	New Considerations for Wearable Technology Data: Changes in Running Biomechanics During a Marathon. Journal of Applied Biomechanics, 2019, 35, 401-409.	0.3	30
33	Classifying running speed conditions using a single wearable sensor: Optimal segmentation and feature extraction methods. Journal of Biomechanics, 2018, 71, 94-99.	0.9	39
34	The use of wearable devices for walking and running gait analysis outside of the lab: A systematic review. Gait and Posture, 2018, 63, 124-138.	0.6	168
35	Runners with patellofemoral pain demonstrate sub-groups of pelvic acceleration profiles using hierarchical cluster analysis: an exploratory cross-sectional study. BMC Musculoskeletal Disorders, 2018, 19, 120.	0.8	12
36	The effect of foot orthoses on joint moment asymmetry in male children with flexible flat feet. Journal of Bodywork and Movement Therapies, 2018, 22, 83-89.	0.5	18

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37	Effects of running experience on coordination and its variability in runners. Journal of Sports Sciences, 2018, 36, 272-278.	1.0	18
38	Analysis of Big Data in Gait Biomechanics: Current Trends and Future Directions. Journal of Medical and Biological Engineering, 2018, 38, 244-260.	1.0	114
39	Gait Kinematics in Individuals with Acute and Chronic Patellofemoral Pain. Medicine and Science in Sports and Exercise, 2018, 50, 502-509.	0.2	20
40	Wearable Sensor Data to Track Subject-Specific Movement Patterns Related to Clinical Outcomes Using a Machine Learning Approach. Sensors, 2018, 18, 2828.	2.1	31
41	Using wearable sensors to classify subject-specific running biomechanical gait patterns based on changes in environmental weather conditions. PLoS ONE, 2018, 13, e0203839.	1.1	42
42	Use of baseline pelvic acceleration during running for classifying response to muscle strengthening treatment in patellofemoral pain: A preliminary study. Clinical Biomechanics, 2018, 57, 74-80.	0.5	5
43	Treatment Success of Hip and Core or Knee Strengthening for Patellofemoral Pain: Development of Clinical Prediction Rules. Journal of Athletic Training, 2018, 53, 545-552.	0.9	11
44	Kinematic Gait Patterns in Competitive and Recreational Runners. Journal of Applied Biomechanics, 2017, 33, 268-276.	0.3	39
45	Wearable sensors to predict response to a hip strengthening exercise intervention in patients with knee osteoarthritis. Osteoarthritis and Cartilage, 2017, 25, S23-S24.	0.6	4
46	Individuals With Patellofemoral Pain Have Less Hip Flexibility Than Controls Regardless of Treatment Outcome. Clinical Journal of Sport Medicine, 2017, 27, 97-103.	0.9	16
47	The use of real-time feedback to improve kinematic marker placement consistency among novice examiners. Gait and Posture, 2017, 58, 440-445.	0.6	2
48	An expert system feedback tool improves the reliability of clinical gait kinematics for older adults with lower limb osteoarthritis. Gait and Posture, 2017, 58, 261-267.	0.6	2
49	Fuzzy Inference System-based Recognition of Slow, Medium and Fast Running Conditions using a Triaxial Accelerometer. Procedia Computer Science, 2017, 114, 401-407.	1.2	18
50	Lasting Improvement of Patient-Reported Outcomes 6 Months After Patellofemoral Pain Rehabilitation. Journal of Sport Rehabilitation, 2017, 26, 223-233.	0.4	10
51	Wearable sensors to predict improvement following an exercise intervention in patients with knee osteoarthritis. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 94.	2.4	28
52	Effects of Simulated Marker Placement Deviations on Running Kinematics and Evaluation of a Morphometric-Based Placement Feedback Method. PLoS ONE, 2016, 11, e0147111.	1.1	24
53	Kernel Principal Component Analysis for Identification of Between-Group Differences and Changes in Running Gait Patterns. IFMBE Proceedings, 2016, , 586-591.	0.2	2
54	Biomechanical Features of Running Gait Data Associated with Iliotibial Band Syndrome: Discrete Variables Versus Principal Component Analysis. IFMBE Proceedings, 2016, , 580-585.	0.2	3

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55	Kinematic gait patterns and their relationship to pain in mild-to-moderate hip osteoarthritis. Clinical Biomechanics, 2016, 34, 12-17.	0.5	29
56	Gender differences in gait kinematics for patients with knee osteoarthritis. BMC Musculoskeletal Disorders, 2016, 17, 157.	0.8	91
57	Relationship between lower limb muscle strength, self-reported pain and function, and frontal plane gait kinematics in knee osteoarthritis. Clinical Biomechanics, 2016, 38, 68-74.	0.5	21
58	Determination of patellofemoral pain sub-groups and development of a method for predicting treatment outcome using running gait kinematics. Clinical Biomechanics, 2016, 38, 13-21.	0.5	30
59	Validation of a Torso-Mounted Accelerometer for Measures of Vertical Oscillation and Ground Contact Time During Treadmill Running. Journal of Applied Biomechanics, 2016, 32, 306-310.	0.3	24
60	Reliability of gait analysis using wearable sensors in patients with knee osteoarthritis. Journal of Biomechanics, 2016, 49, 3977-3982.	0.9	26
61	Gait biomechanics in the era of data science. Journal of Biomechanics, 2016, 49, 3759-3761.	0.9	75
62	A comparison of different over-the-counter foot orthotic devices on multi-segment foot biomechanics. Prosthetics and Orthotics International, 2016, 40, 675-681.	0.5	10
63	Effects of strengthening and stretching exercise programmes on kinematics and kinetics of running in older adults: a randomised controlled trial. Journal of Sports Sciences, 2016, 34, 1774-1781.	1.0	4
64	Predicting ground contact events for a continuum of gait types: An application of targeted machine learning using principal component analysis. Gait and Posture, 2016, 46, 86-90.	0.6	28
65	PAIN, FUNCTION, AND STRENGTH OUTCOMES FOR MALES AND FEMALES WITH PATELLOFEMORAL PAIN WHO PARTICIPATE IN EITHER A HIP/CORE- OR KNEE-BASED REHABILITATION PROGRAM. International Journal of Sports Physical Therapy, 2016, 11, 926-935.	0.5	13
66	Changes in Foot Pronation Biomechanics From a Walk to a Run. Medicine and Science in Sports and Exercise, 2015, 47, 817-823.	0.2	0
67	Gait Biomechanics and Patient-Reported Function as Predictors of Response to a Hip Strengthening Exercise Intervention in Patients with Knee Osteoarthritis. PLoS ONE, 2015, 10, e0139923.	1.1	32
68	Gender differences in gait kinematics in runners with iliotibial band syndrome. Scandinavian Journal of Medicine and Science in Sports, 2015, 25, 744-753.	1.3	46
69	Experimentally Reduced Hip-Abductor Muscle Strength and Frontal-Plane Biomechanics During Walking. Journal of Athletic Training, 2015, 50, 385-391.	0.9	24
70	Do intermediate- and higher-order principal components contain useful information to detect subtle changes in lower extremity biomechanics during running?. Human Movement Science, 2015, 44, 91-101.	0.6	38
71	Kinematic gait patterns in healthy runners: A hierarchical cluster analysis. Journal of Biomechanics, 2015, 48, 3897-3904.	0.9	66
72	A novel method to evaluate error in anatomical marker placement using a modified generalized Procrustes analysis. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 1108-1116.	0.9	23

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73	The effect of the addition of hip strengthening exercises to a lumbopelvic exercise programme for the treatment of non-specific low back pain: A randomized controlled trial. Journal of Science and Medicine in Sport, 2015, 18, 626-631.	0.6	31
74	Comparison of hip and knee strength in males with and without patellofemoral pain. Physical Therapy in Sport, 2015, 16, 215-221.	0.8	33
75	Strengthening of the Hip and Core Versus Knee Muscles for the Treatment of Patellofemoral Pain: A Multicenter Randomized Controlled Trial. Journal of Athletic Training, 2015, 50, 366-377.	0.9	129
76	Gender and Age-Related Differences in Bilateral Lower Extremity Mechanics during Treadmill Running. PLoS ONE, 2014, 9, e105246.	1.1	66
77	Classification accuracy of a single tri-axial accelerometer for training background and experience level in runners. Journal of Biomechanics, 2014, 47, 2508-2511.	0.9	31
78	The effect of land-based exercise on pain and function outcomes in hip osteoarthritis: a systematic review and meta-analysis. Osteoarthritis and Cartilage, 2014, 22, S21.	0.6	1
79	Does tester experience influence the reliability with which 3D gait kinematics are collected in healthy adults?. Physical Therapy in Sport, 2014, 15, 112-116.	0.8	18
80	Flexibility, muscle strength and running biomechanical adaptations in older runners. Clinical Biomechanics, 2014, 29, 304-310.	0.5	56
81	Predicting timing of foot strike during running, independent of striking technique, using principal component analysis of joint angles. Journal of Biomechanics, 2014, 47, 2786-2789.	0.9	21
82	Association of Navicular Drop and Selected Lower-Limb Biomechanical Measures During the Stance Phase of Running. Journal of Applied Biomechanics, 2014, 30, 250-254.	0.3	18
83	No evidence of a consistent alteration in the external knee adduction moment during gait in individuals with knee osteoarthritis: a systematic review and meta-analysis. Osteoarthritis and Cartilage, 2013, 21, S94.	0.6	0
84	Between-Limb Kinematic Asymmetry During Gait in Unilateral and Bilateral Mild to Moderate Knee Osteoarthritis. Archives of Physical Medicine and Rehabilitation, 2013, 94, 2241-2247.	0.5	67
85	Biomechanical Deviations During Level Walking Associated With Knee Osteoarthritis: A Systematic Review and Metaâ€Analysis. Arthritis Care and Research, 2013, 65, 1643-1665.	1.5	141
86	Can orthoses and navicular drop affect foot motion patterns during running?. Journal of Science and Medicine in Sport, 2013, 16, 377-381.	0.6	10
87	Gait biomechanics and hip muscular strength in patients with patellofemoral osteoarthritis. Gait and Posture, 2013, 37, 440-444.	0.6	44
88	A systematic review and meta-analysis of lower limb neuromuscular alterations associated with knee osteoarthritis during level walking. Clinical Biomechanics, 2013, 28, 713-724.	0.5	61
89	Validation of Plantar Pressure Measurements for a Novel in-Shoe Plantar Sensory Replacement Unit. Journal of Diabetes Science and Technology, 2013, 7, 1167-1175.	1.3	34
90	Steps Toward the Validation of the Trendelenburg Test. Clinical Journal of Sport Medicine, 2013, 23, 45-51.	0.9	35

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91	Bone Quality and Muscle Strength in Female Athletes with Lower Limb Stress Fractures. Medicine and Science in Sports and Exercise, 2011, 43, 2110-2119.	0.2	82
92	Changes in Knee Biomechanics After a Hip-Abductor Strengthening Protocol for Runners With Patellofemoral Pain Syndrome. Journal of Athletic Training, 2011, 46, 142-149.	0.9	158
93	Changes in multiâ€segment foot biomechanics with a heatâ€mouldable semiâ€custom foot orthotic device. Journal of Foot and Ankle Research, 2011, 4, 18.	0.7	31
94	Changes in joint coupling and variability during walking following tibialis posterior muscle fatigue. Journal of Foot and Ankle Research, 2011, 4, 6.	0.7	36
95	Support vector machines for detecting age-related changes in running kinematics. Journal of Biomechanics, 2011, 44, 540-542.	0.9	52
96	Biomechanical and Clinical Factors Related to Stage I Posterior Tibial Tendon Dysfunction. Journal of Orthopaedic and Sports Physical Therapy, 2011, 41, 776-784.	1.7	52
97	Normative and Critical Criteria for Iliotibial Band and Iliopsoas Muscle Flexibility. Journal of Athletic Training, 2010, 45, 344-348.	0.9	51
98	The Relationship Between Hip-Abductor Strength and the Magnitude of Pelvic Drop in Patients With Low Back Pain. Journal of Sport Rehabilitation, 2010, 19, 422-435.	0.4	58
99	The role of tibialis posterior fatigue on foot kinematics during walking. Journal of Foot and Ankle Research, 2010, 3, 6.	0.7	30
100	Competitive Female Runners With a History of Iliotibial Band Syndrome Demonstrate Atypical Hip and Knee Kinematics. Journal of Orthopaedic and Sports Physical Therapy, 2010, 40, 52-58.	1.7	211
101	Can the reliability of three-dimensional running kinematics be improved using functional joint methodology?. Gait and Posture, 2010, 32, 559-563.	0.6	82
102	Suspected Mechanisms in the Cause of Overuse Running Injuries: A Clinical Review. Sports Health, 2009, 1, 242-246.	1.3	88
103	Gait mechanics after ACL reconstruction: implications for the early onset of knee osteoarthritis. British Journal of Sports Medicine, 2009, 43, 366-370.	3.1	155
104	Gender Differences In Gait Mechanics Following an ACL Rupture: Implications For Early Onset Knee Osteoarthritis In Females. Medicine and Science in Sports and Exercise, 2008, 40, S338.	0.2	1
105	Gait Mechanics Following an ACL rupture: Implication for the Early Onset of Knee Osteoarthritis. Medicine and Science in Sports and Exercise, 2008, 40, S58.	0.2	1
106	Effect of an unstable shoe construction on lower extremity gait characteristics. Clinical Biomechanics, 2006, 21, 82-88.	0.5	229
107	Biomechanical Factors Associated with Tibial Stress Fracture in Female Runners. Medicine and Science in Sports and Exercise, 2006, 38, 323-328.	0.2	624
108	Effect of foot orthotics on rearfoot and tibia joint coupling patterns and variability. Journal of Biomechanics, 2005, 38, 477-483.	0.9	88

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109	Bilateral accommodations to anterior cruciate ligament deficiency and surgery. Clinical Biomechanics, 2004, 19, 136-144.	0.5	45
110	Lower extremity joint coupling during running: a current update. Clinical Biomechanics, 2004, 19, 983-991.	0.5	120
111	Gender differences in lower extremity mechanics during running. Clinical Biomechanics, 2003, 18, 350-357.	0.5	513
112	Gait mechanics in chronic ACL deficiency and subsequent repair. Clinical Biomechanics, 2002, 17, 274-285.	0.5	119
113	An Electromyographical Analysis of the Role of Dorsiflexors on the Gait Transition during Human Locomotion. Journal of Applied Biomechanics, 2001, 17, 287-296.	0.3	34