

# Pablo Flora

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

91  
papers

1,929  
citations

23  
h-index

40  
g-index

101  
ext. papers

2,434  
ext. citations

2.8  
avg, IF

5.37  
L-index

#	Paper	IF	Citations
91	The Flywheel Device Shaft Shape Determines Force and Velocity Profiles in The Half Squat Exercise.. <i>Journal of Human Kinetics</i> , <b>2022</b> , 81, 15-25	2.6	0
90	Is This the Real Life, or Is This Just Laboratory? A Scoping Review of IMU-Based Running Gait Analysis.. <i>Sensors</i> , <b>2022</b> , 22,	3.8	4
89	Why machine learning (ML) has failed physical activity research and how we can improve.. <i>BMJ Open Sport and Exercise Medicine</i> , <b>2022</b> , 8, e001259	3.4	1
88	Sex differences in the regularity and symmetry of gait in older adults with and without knee osteoarthritis.. <i>Gait and Posture</i> , <b>2022</b> , 95, 192-197	2.6	1
87	Predicting knee adduction moment response to gait retraining with minimal clinical data.. <i>PLoS Computational Biology</i> , <b>2022</b> , 18, e1009500	5	0
86	Between-Day Reliability of Commonly Used IMU Features during a Fatiguing Run and the Effect of Speed. <i>Sensors</i> , <b>2022</b> , 22, 4129	3.8	
85	Evaluation of COVID-19 Restrictions on Distance Runners' Training Habits Using Wearable Trackers.. <i>Frontiers in Sports and Active Living</i> , <b>2021</b> , 3, 812214	2.3	1
84	Real-time mechanical responses to overload and fatigue using a flywheel training device. <i>Journal of Biomechanics</i> , <b>2021</b> , 121, 110429	2.9	0
83	Using wearable and mobile technology to measure and promote healthy sleep behaviors in adolescents: a scoping review protocol. <i>JBI Evidence Synthesis</i> , <b>2021</b> , 19, 2760-2769	2.1	1
82	Wearable Fitness Trackers to Predict Clinical Deterioration in Maintenance Hemodialysis: A Prospective Cohort Feasibility Study. <i>Kidney Medicine</i> , <b>2021</b> , 3, 768-775.e1	2.8	1
81	Variability in the Application of Eccentric Force Using Different Rotary Inertia Devices May Influence the Treatment of Tendinopathy. <i>Journal of Sport Rehabilitation</i> , <b>2021</b> , 1-4	1.7	0
80	Effects of Plyometric Vs. Combined Plyometric Training on Vertical Jump Biomechanics in Female Basketball Players. <i>Journal of Human Kinetics</i> , <b>2021</b> , 77, 25-35	2.6	1
79	Estimation of kinematics from inertial measurement units using a combined deep learning and optimization framework. <i>Journal of Biomechanics</i> , <b>2021</b> , 116, 110229	2.9	10
78	Comparing the performance of Bayesian and least-squares approaches for inverse kinematics problems. <i>Journal of Biomechanics</i> , <b>2021</b> , 126, 110597	2.9	1
77	Static balance performance differs depending on the test, age and specific role played in acrobatic gymnastics. <i>Gait and Posture</i> , <b>2021</b> , 90, 48-54	2.6	0
76	Verbal instructions affect reactive strength index modified and time-series waveforms in basketball players. <i>Sports Biomechanics</i> , <b>2021</b> , 1-11	2.2	1
75	Effects of task difficulty on centre of pressure excursion and its inter-trial variability in acrobatic gymnastics pyramid performance. <i>Sports Biomechanics</i> , <b>2020</b> , 1-16	2.2	2

74	Distance running stride-to-stride variability for sagittal plane joint angles. <i>Sports Biomechanics</i> , <b>2020</b> , 1-15	2.2	0
73	New Considerations for Collecting Biomechanical Data Using Wearable Sensors: The Effect of Different Running Environments. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2020</b> , 8, 86	5.8	4
72	The effects of midfoot strike gait retraining on impact loading and joint stiffness. <i>Physical Therapy in Sport</i> , <b>2020</b> , 42, 139-145	3	4
71	Effects of deceptive footwear condition on subjective comfort and running biomechanics. <i>Translational Sports Medicine</i> , <b>2020</b> , 3, 256-262	1.3	5
70	Validity and reliability of a smartphone motion analysis app for lower limb kinematics during treadmill running. <i>Physical Therapy in Sport</i> , <b>2020</b> , 43, 27-35	3	10
69	A hierarchical cluster analysis to determine whether injured runners exhibit similar kinematic gait patterns. <i>Scandinavian Journal of Medicine and Science in Sports</i> , <b>2020</b> , 30, 732-740	4.6	14
68	Runners' Perspectives on Smart Wearable Technology and Its Use for Preventing Injury. <i>International Journal of Human-Computer Interaction</i> , <b>2020</b> , 36, 31-40	3.6	18
67	Is possible an eccentric overload in a rotary inertia device? Comparison of force profile in a cylinder-shaped and a cone-shaped axis devices. <i>Journal of Sports Sciences</i> , <b>2020</b> , 38, 1624-1628	3.6	12
66	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?. <i>Sensors</i> , <b>2019</b> , 19,	3.8	7
65	The biomechanical difference between running with traditional and 3D printed orthoses. <i>Journal of Sports Sciences</i> , <b>2019</b> , 37, 2191-2197	3.6	10
64	The effect of running speed on joint coupling coordination and its variability in recreational runners. <i>Human Movement Science</i> , <b>2019</b> , 66, 449-458	2.4	11
63	Automated Accelerometer-Based Gait Event Detection During Multiple Running Conditions. <i>Sensors</i> , <b>2019</b> , 19,	3.8	21
62	Running patterns for male and female competitive and recreational runners based on accelerometer data. <i>Journal of Sports Sciences</i> , <b>2019</b> , 37, 204-211	3.6	24
61	Application of the principal component waveform analysis to identify improvements in vertical jump performance. <i>Journal of Sports Sciences</i> , <b>2019</b> , 37, 370-377	3.6	8
60	Maximum velocity during loaded countermovement jumps obtained with an accelerometer, linear encoder and force platform: A comparison of technologies. <i>Journal of Biomechanics</i> , <b>2019</b> , 95, 109281	2.9	9
59	LA IMPORTANCIA DE LA PROFUNDIDAD DEL CONTRAMOVIMIENTO EN EL CICLO ESTIRAMIENTO-ACORTAMIENTO. <i>Revista Internacional De Medicina Y Ciencias De La Actividad Fisica Y Del Deporte</i> , <b>2019</b> , 19, 33	0.5	0
58	New considerations for collecting biomechanical data using wearable sensors: Number of level runs to define a stable running pattern with a single IMU. <i>Journal of Biomechanics</i> , <b>2019</b> , 85, 187-192	2.9	17
57	Subject-specific and group-based running pattern classification using a single wearable sensor. <i>Journal of Biomechanics</i> , <b>2019</b> , 84, 227-233	2.9	18

56	Patellofemoral joint stress measured across three different running techniques. <i>Gait and Posture</i> , <b>2019</b> , 68, 37-43	2.6	22
55	Classification of higher- and lower-mileage runners based on running kinematics. <i>Journal of Sport and Health Science</i> , <b>2019</b> , 8, 249-257	8.2	16
54	Classifying running speed conditions using a single wearable sensor: Optimal segmentation and feature extraction methods. <i>Journal of Biomechanics</i> , <b>2018</b> , 71, 94-99	2.9	27
53	The use of wearable devices for walking and running gait analysis outside of the lab: A systematic review. <i>Gait and Posture</i> , <b>2018</b> , 63, 124-138	2.6	92
52	Runners with patellofemoral pain demonstrate sub-groups of pelvic acceleration profiles using hierarchical cluster analysis: an exploratory cross-sectional study. <i>BMC Musculoskeletal Disorders</i> , <b>2018</b> , 19, 120	2.8	7
51	The effect of foot orthoses on joint moment asymmetry in male children with flexible flat feet. <i>Journal of Bodywork and Movement Therapies</i> , <b>2018</b> , 22, 83-89	1.6	9
50	Effects of running experience on coordination and its variability in runners. <i>Journal of Sports Sciences</i> , <b>2018</b> , 36, 272-278	3.6	16
49	Analysis of Big Data in Gait Biomechanics: Current Trends and Future Directions. <i>Journal of Medical and Biological Engineering</i> , <b>2018</b> , 38, 244-260	2.2	70
48	Multiscale time irreversibility: Is it useful in the analysis of human gait?. <i>Biomedical Signal Processing and Control</i> , <b>2018</b> , 39, 431-434	4.9	7
47	Treatment Success of Hip and Core or Knee Strengthening for Patellofemoral Pain: Development of Clinical Prediction Rules. <i>Journal of Athletic Training</i> , <b>2018</b> , 53, 545-552	4	3
46	Larger Countermovement Increases the Jump Height of Countermovement Jump. <i>Sports</i> , <b>2018</b> , 6,	3	17
45	Wearable Sensor Data to Track Subject-Specific Movement Patterns Related to Clinical Outcomes Using a Machine Learning Approach. <i>Sensors</i> , <b>2018</b> , 18,	3.8	20
44	Using wearable sensors to classify subject-specific running biomechanical gait patterns based on changes in environmental weather conditions. <i>PLoS ONE</i> , <b>2018</b> , 13, e0203839	3.7	28
43	Use of baseline pelvic acceleration during running for classifying response to muscle strengthening treatment in patellofemoral pain: A preliminary study. <i>Clinical Biomechanics</i> , <b>2018</b> , 57, 74-80	2.2	4
42	Wearable sensors to predict improvement following an exercise intervention in patients with knee osteoarthritis. <i>Journal of NeuroEngineering and Rehabilitation</i> , <b>2017</b> , 14, 94	5.3	17
41	The use of real-time feedback to improve kinematic marker placement consistency among novice examiners. <i>Gait and Posture</i> , <b>2017</b> , 58, 440-445	2.6	2
40	An expert system feedback tool improves the reliability of clinical gait kinematics for older adults with lower limb osteoarthritis. <i>Gait and Posture</i> , <b>2017</b> , 58, 261-267	2.6	2
39	Relationship between lower limb muscle strength, self-reported pain and function, and frontal plane gait kinematics in knee osteoarthritis. <i>Clinical Biomechanics</i> , <b>2016</b> , 38, 68-74	2.2	13

38	Determination of patellofemoral pain sub-groups and development of a method for predicting treatment outcome using running gait kinematics. <i>Clinical Biomechanics</i> , <b>2016</b> , 38, 13-21	2.2	26
37	Reliability of gait analysis using wearable sensors in patients with knee osteoarthritis. <i>Journal of Biomechanics</i> , <b>2016</b> , 49, 3977-3982	2.9	17
36	Gait biomechanics in the era of data science. <i>Journal of Biomechanics</i> , <b>2016</b> , 49, 3759-3761	2.9	48
35	Effects of strengthening and stretching exercise programmes on kinematics and kinetics of running in older adults: a randomised controlled trial. <i>Journal of Sports Sciences</i> , <b>2016</b> , 34, 1774-81	3.6	4
34	Predicting ground contact events for a continuum of gait types: An application of targeted machine learning using principal component analysis. <i>Gait and Posture</i> , <b>2016</b> , 46, 86-90	2.6	19
33	Effects of Simulated Marker Placement Deviations on Running Kinematics and Evaluation of a Morphometric-Based Placement Feedback Method. <i>PLoS ONE</i> , <b>2016</b> , 11, e0147111	3.7	18
32	Kinetic and Kinematic Analysis for Assessing the Differences in Countermovement Jump Performance in Rugby Players. <i>Journal of Strength and Conditioning Research</i> , <b>2016</b> , 30, 2533-9	3.2	8
31	Kinematic gait patterns and their relationship to pain in mild-to-moderate hip osteoarthritis. <i>Clinical Biomechanics</i> , <b>2016</b> , 34, 12-7	2.2	22
30	Gender differences in gait kinematics for patients with knee osteoarthritis. <i>BMC Musculoskeletal Disorders</i> , <b>2016</b> , 17, 157	2.8	61
29	Do intermediate- and higher-order principal components contain useful information to detect subtle changes in lower extremity biomechanics during running?. <i>Human Movement Science</i> , <b>2015</b> , 44, 91-101	2.4	31
28	Kinematic gait patterns in healthy runners: A hierarchical cluster analysis. <i>Journal of Biomechanics</i> , <b>2015</b> , 48, 3897-904	2.9	45
27	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. <i>Journal of Science and Medicine in Sport</i> , <b>2015</b> , 18, 626-31	4.4	16
26	Comparison of hip and knee strength in males with and without patellofemoral pain. <i>Physical Therapy in Sport</i> , <b>2015</b> , 16, 215-21	3	26
25	Strengthening of the hip and core versus knee muscles for the treatment of patellofemoral pain: a multicenter randomized controlled trial. <i>Journal of Athletic Training</i> , <b>2015</b> , 50, 366-77	4	93
24	Forced inspiratory volume in the first second as predictor of front-crawl performance in young sprint swimmers. <i>Journal of Strength and Conditioning Research</i> , <b>2015</b> , 29, 188-94	3.2	1
23	Gait Biomechanics and Patient-Reported Function as Predictors of Response to a Hip Strengthening Exercise Intervention in Patients with Knee Osteoarthritis. <i>PLoS ONE</i> , <b>2015</b> , 10, e0139923 <sup>3.7</sup>	3.7	28
22	Centre of pressure correlates with pyramid performance in acrobatic gymnastics. <i>Sports Biomechanics</i> , <b>2015</b> , 14, 424-34	2.2	4
21	Does tester experience influence the reliability with which 3D gait kinematics are collected in healthy adults?. <i>Physical Therapy in Sport</i> , <b>2014</b> , 15, 112-6	3	12

20	Flexibility, muscle strength and running biomechanical adaptations in older runners. <i>Clinical Biomechanics</i> , <b>2014</b> , 29, 304-10	2.2	44
19	Predicting timing of foot strike during running, independent of striking technique, using principal component analysis of joint angles. <i>Journal of Biomechanics</i> , <b>2014</b> , 47, 2786-9	2.9	16
18	Analysis of speed performance in soccer by a playing position and a sports level using a laser system. <i>Journal of Human Kinetics</i> , <b>2014</b> , 44, 143-53	2.6	11
17	Variability in the application of force during the vertical jump in children and adults. <i>Journal of Applied Biomechanics</i> , <b>2014</b> , 30, 679-84	1.2	8
16	Gender and age-related differences in bilateral lower extremity mechanics during treadmill running. <i>PLoS ONE</i> , <b>2014</b> , 9, e105246	3.7	50
15	The influence of range of motion versus application of force on vertical jump performance in prepubescent girls and adult females. <i>European Journal of Sport Science</i> , <b>2014</b> , 14 Suppl 1, S197-204	3.9	3
14	Classification accuracy of a single tri-axial accelerometer for training background and experience level in runners. <i>Journal of Biomechanics</i> , <b>2014</b> , 47, 2508-11	2.9	21
13	Ground reaction force differences in the countermovement jump in girls with different levels of performance. <i>Research Quarterly for Exercise and Sport</i> , <b>2013</b> , 84, 329-35	1.9	10
12	Validation of plantar pressure measurements for a novel in-shoe plantar sensory replacement unit. <i>Journal of Diabetes Science and Technology</i> , <b>2013</b> , 7, 1167-75	4.1	22
11	The effect of arm action on the vertical jump performance in children and adult females. <i>Journal of Applied Biomechanics</i> , <b>2013</b> , 29, 655-61	1.2	9
10	Differences in 200-m sprint running performance between outdoor and indoor venues. <i>Journal of Strength and Conditioning Research</i> , <b>2013</b> , 27, 83-8	3.2	9
9	Validez y fiabilidad del sensor láser del sistema BioLaserSport para el análisis de la velocidad de la carrera. (Validity and reliability of the laser sensor of BioLaserSport system for the analysis of the running velocity).. <i>RICYDE Revista Internacional De Ciencias Del Deporte</i> , <b>2012</b> , 8, 357-370	1.5	5
8	Changes in knee biomechanics after a hip-abductor strengthening protocol for runners with patellofemoral pain syndrome. <i>Journal of Athletic Training</i> , <b>2011</b> , 46, 142-9	4	134
7	Changes in multi-segment foot biomechanics with a heat-mouldable semi-custom foot orthotic device. <i>Journal of Foot and Ankle Research</i> , <b>2011</b> , 4, 18	3.2	26
6	Changes in joint coupling and variability during walking following tibialis posterior muscle fatigue. <i>Journal of Foot and Ankle Research</i> , <b>2011</b> , 4, 6	3.2	26
5	Competitive female runners with a history of iliotibial band syndrome demonstrate atypical hip and knee kinematics. <i>Journal of Orthopaedic and Sports Physical Therapy</i> , <b>2010</b> , 40, 52-8	4.2	174
4	Can the reliability of three-dimensional running kinematics be improved using functional joint methodology?. <i>Gait and Posture</i> , <b>2010</b> , 32, 559-63	2.6	70
3	Effect of foot orthotics on rearfoot and tibia joint coupling patterns and variability. <i>Journal of Biomechanics</i> , <b>2005</b> , 38, 477-83	2.9	73

2	Bilateral accommodations to anterior cruciate ligament deficiency and surgery. <i>Clinical Biomechanics</i> , <b>2004</b> , 19, 136-44	2.2	43
1	Lower extremity joint coupling during running: a current update. <i>Clinical Biomechanics</i> , <b>2004</b> , 19, 983-91	2.2	104