Kamair Aminian

List of Publications by Year
in descending order

267 papers	14,291 citations	25014 57 h-index	24961 109 g-index
285 all docs	285 docs citations	285 times ranked	10650 citing authors

#	Article	IF	Citations
1	Spatio-temporal parameters of gait measured by an ambulatory system using miniature gyroscopes. Journal of Biomechanics, 2002, 35, 689-699.	0.9	705
2	Ambulatory system for human motion analysis using a kinematic sensor: monitoring of daily physical activity in the elderly. IEEE Transactions on Biomedical Engineering, 2003, 50, 711-723.	2.5	642
3	Gait Assessment in Parkinson's Disease: Toward an Ambulatory System for Long-Term Monitoring. IEEE Transactions on Biomedical Engineering, 2004, 51, 1434-1443.	2.5	527
4	iTUG, a Sensitive and Reliable Measure of Mobility. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 303-310.	2.7	426
5	Measurement of stand-sit and sit-stand transitions using a miniature gyroscope and its application in fall risk evaluation in the elderly. IEEE Transactions on Biomedical Engineering, 2002, 49, 843-851.	2.5	371
6	Evaluation of Accelerometer-Based Fall Detection Algorithms on Real-World Falls. PLoS ONE, 2012, 7, e37062.	1.1	359
7	Quantification of Tremor and Bradykinesia in Parkinson's Disease Using a Novel Ambulatory Monitoring System. IEEE Transactions on Biomedical Engineering, 2007, 54, 313-322.	2.5	335
8	3D gait assessment in young and elderly subjects using foot-worn inertial sensors. Journal of Biomechanics, 2010, 43, 2999-3006.	0.9	307
9	The instrumented timed up and go test: potential outcome measure for disease modifying therapies in Parkinson's disease. Journal of Neurology, Neurosurgery and Psychiatry, 2010, 81, 171-176.	0.9	296
10	Physical activity monitoring based on accelerometry: validation and comparison with video observation. Medical and Biological Engineering and Computing, 1999, 37, 304-308.	1.6	263
11	Ambulatory measurement of 3D knee joint angle. Journal of Biomechanics, 2008, 41, 1029-1035.	0.9	251
12	Functional calibration procedure for 3D knee joint angle description using inertial sensors. Journal of Biomechanics, 2009, 42, 2330-2335.	0.9	251
13	A New Approach to Accurate Measurement of Uniaxial Joint Angles Based on a Combination of Accelerometers and Gyroscopes. IEEE Transactions on Biomedical Engineering, 2005, 52, 1478-1484.	2.5	239
14	The gait and balance of patients with diabetes can be improved: a randomised controlled trial. Diabetologia, 2010, 53, 458-466.	2.9	236
15	Wearable sensors objectively measure gait parameters in Parkinson's disease. PLoS ONE, 2017, 12, e0183989.	1.1	235
16	On-Shoe Wearable Sensors for Gait and Turning Assessment of Patients With Parkinson's Disease. IEEE Transactions on Biomedical Engineering, 2013, 60, 155-158.	2.5	223
17	Capturing human motion using body-fixed sensors: outdoor measurement and clinical applications. Computer Animation and Virtual Worlds, 2004, 15, 79-94.	0.7	219
18	Quantitative estimation of foot-flat and stance phase of gait using foot-worn inertial sensors. Gait and Posture, 2013, 37, 229-234.	0.6	209

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19	Relationships between dual-task related changes in stride velocity and stride time variability in healthy older adults. Human Movement Science, 2006, 25, 372-382.	0.6	185
20	Long-term unsupervised mobility assessment in movement disorders. Lancet Neurology, The, 2020, 19, 462-470.	4.9	181
21	Ambulatory Monitoring of Physical Activities in Patients With Parkinson's Disease. IEEE Transactions on Biomedical Engineering, 2007, 54, 2296-2299.	2.5	177
22	Distance to achieve steady state walking speed in frail elderly persons. Gait and Posture, 2008, 27, 91-96.	0.6	166
23	Estimation and Visualization of Sagittal Kinematics of Lower Limbs Orientation Using Body-Fixed Sensors. IEEE Transactions on Biomedical Engineering, 2006, 53, 1385-1393.	2.5	160
24	Evaluation of an ambulatory system for gait analysis in hip osteoarthritis and after total hip replacement. Gait and Posture, 2004, 20, 102-107.	0.6	156
25	Temporal feature estimation during walking using miniature accelerometers: an analysis of gait improvement after hip arthroplasty. Medical and Biological Engineering and Computing, 1999, 37, 686-691.	1.6	153
26	Mobile Health Applications to Promote Active and Healthy Ageing. Sensors, 2017, 17, 622.	2.1	151
27	Heel and Toe Clearance Estimation for Gait Analysis Using Wireless Inertial Sensors. IEEE Transactions on Biomedical Engineering, 2012, 59, 3162-3168.	2.5	141
28	Does walking strategy in older people change as a function of walking distance?. Gait and Posture, 2009, 29, 261-266.	0.6	136
29	Gait and Foot Clearance Parameters Obtained Using Shoe-Worn Inertial Sensors in a Large-Population Sample of Older Adults. Sensors, 2014, 14, 443-457.	2.1	133
30	Quaternion-based fusion of gyroscopes and accelerometers to improve 3D angle measurement. Electronics Letters, 2006, 42, 612.	0.5	127
31	Mobility assessment in older people: new possibilities and challenges. European Journal of Ageing, 2007, 4, 3-12.	1.2	126
32	Sturzerkennung mit am Körper getragenen Sensoren. Zeitschrift Fur Gerontologie Und Geriatrie, 2013, 46, 706-719.	0.8	126
33	AGE-RELATED DECLINE OF GAIT CONTROL UNDER A DUAL-TASK CONDITION. Journal of the American Geriatrics Society, 2003, 51, 1187-1188.	1.3	122
34	Dual-task-related gait changes in the elderly: does the type of cognitive task matter?. Journal of Motor Behavior, 2005, 37, 259-64.	0.5	122
35	What is the Relationship Between Fear of Falling and Gait in Well-Functioning Older Persons Aged 65 to 70 Years?. Archives of Physical Medicine and Rehabilitation, 2010, 91, 879-884.	0.5	119
36	Gait alterations of diabetic patients while walking on different surfaces. Gait and Posture, 2009, 29, 488-493.	0.6	115

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37	Stair climbing detection during daily physical activity using a miniature gyroscope. Gait and Posture, 2005, 22, 287-294.	0.6	107
38	Multi-parametric evaluation of sit-to-stand and stand-to-sit transitions in elderly people. Medical Engineering and Physics, 2011, 33, 1086-1093.	0.8	95
39	Estimation of speed and incline of walking using neural network. IEEE Transactions on Instrumentation and Measurement, 1995, 44, 743-746.	2.4	84
40	Ambulatory system for the quantitative and qualitative analysis of gait and posture in chronic pain patients treated with spinal cord stimulation. Gait and Posture, 2004, 20, 113-125.	0.6	84
41	Spatio-temporal gait analysis in children with cerebral palsy using, foot-worn inertial sensors. Gait and Posture, 2014, 39, 436-442.	0.6	84
42	A Novel Approach to Reducing Number of Sensing Units for Wearable Gait Analysis Systems. IEEE Transactions on Biomedical Engineering, 2013, 60, 72-77.	2.5	83
43	The prediction of speed and incline in outdoor running in humans using accelerometry. Medicine and Science in Sports and Exercise, 1999, 31, 1053-1059.	0.2	79
44	Gait analysis and WOMAC are complementary in assessing functional outcome in total hip replacement. Clinical Rehabilitation, 2006, 20, 413-420.	1.0	73
45	Accurate Estimation of Running Temporal Parameters Using Foot-Worn Inertial Sensors. Frontiers in Physiology, 2018, 9, 610.	1.3	72
46	Front-Crawl Instantaneous Velocity Estimation Using a Wearable Inertial Measurement Unit. Sensors, 2012, 12, 12927-12939.	2.1	71
47	Ambulatory assessment of 3D ground reaction force using plantar pressure distribution. Gait and Posture, 2010, 32, 311-316.	0.6	70
48	Stride-to-stride variability while enumerating animal names among healthy young adults: Result of stride velocity or effect of attention-demanding task?. Gait and Posture, 2008, 27, 138-143.	0.6	69
49	Can accelerometry accurately predict the energy cost of uphill/downhill walking?. Ergonomics, 2001, 44, 48-62.	1.1	68
50	The FARSEEING real-world fall repository: a large-scale collaborative database to collect and share sensor signals from real-world falls. European Review of Aging and Physical Activity, 2016, 13, 8.	1.3	67
51	Analyzing 180&#x00B0; turns using an inertial system reveals early signs of progression of parkinson's disease. , 2009, 2009, 224-7.		66
52	Instrumented shoes for activity classification in the elderly. Gait and Posture, 2016, 44, 12-17.	0.6	65
53	Standardization proposal of soft tissue artefact description for data sharing in human motion measurements. Journal of Biomechanics, 2017, 62, 5-13.	0.9	65
54	Improving activity recognition using a wearable barometric pressure sensor in mobility-impaired stroke patients. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 72.	2.4	64

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55	Quantification of everyday motor function in a geriatric population. Journal of Rehabilitation Research and Development, 2007, 44, 417.	1.6	64
56	A new ambulatory system for comparative evaluation of the three-dimensional knee kinematics, applied to anterior cruciate ligament injuries. Knee Surgery, Sports Traumatology, Arthroscopy, 2006, 14, 592-604.	2.3	62
57	Multi-segment foot kinematics after total ankle replacement and ankle arthrodesis during relatively long-distance gait. Gait and Posture, 2012, 36, 561-566.	0.6	60
58	Arm position during daily activity. Gait and Posture, 2008, 28, 581-587.	0.6	59
59	Soft Tissue Artifact Assessment During Treadmill Walking in Subjects With Total Knee Arthroplasty. IEEE Transactions on Biomedical Engineering, 2013, 60, 3131-3140.	2.5	59
60	Barcoding Human Physical Activity to Assess Chronic Pain Conditions. PLoS ONE, 2012, 7, e32239.	1.1	58
61	A novel biomechanical approach for animal behaviour recognition using accelerometers. Methods in Ecology and Evolution, 2019, 10, 802-814.	2.2	57
62	Outcome evaluation in shoulder surgery using 3D kinematics sensors. Gait and Posture, 2007, 25, 523-532.	0.6	56
63	Technical validation of real-world monitoring of gait: a multicentric observational study. BMJ Open, 2021, 11, e050785.	0.8	56
64	Incline, speed, and distance assessment during unconstrained walking. Medicine and Science in Sports and Exercise, 1995, 27, 226???234.	0.2	55
65	Measurement of Multi-segment Foot Joint Angles During Gait Using a Wearable System. Journal of Biomechanical Engineering, 2012, 134, 061006.	0.6	55
66	A system to measure the kinematics during the entire ski jump sequence using inertial sensors. Journal of Biomechanics, 2013, 46, 56-62.	0.9	55
67	Automatic front-crawl temporal phase detection using adaptive filtering of inertial signals. Journal of Sports Sciences, 2013, 31, 1251-1260.	1.0	54
68	Detection and Classification of Postural Transitions in Real-World Conditions. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 688-696.	2.7	53
69	Continuous monitoring and quantification of multiple parameters of daily physical activity in ambulatory Duchenne muscular dystrophy patients. European Journal of Paediatric Neurology, 2011, 15, 40-47.	0.7	52
70	Automatic measurement of key ski jumping phases and temporal events with a wearable system. Journal of Sports Sciences, 2012, 30, 53-61.	1.0	52
71	Vorschlag für ein Mehrphasensturzmodell auf der Basis von Sturzdokumentationen mit am Körper getragenen Sensoren. Zeitschrift Fur Gerontologie Und Geriatrie, 2012, 45, 707-715.	0.8	50
72	Recommendations for Standardizing Validation Procedures Assessing Physical Activity of Older Persons by Monitoring Body Postures and Movements. Sensors, 2014, 14, 1267-1277.	2.1	50

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73	An exercise intervention to improve diabetic patients' gait in a real-life environment. Gait and Posture, 2010, 32, 185-190.	0.6	49
74	A wearable inertial system to assess the cervical spine mobility: Comparison with an optoelectronic-based motion capture evaluation. Medical Engineering and Physics, 2014, 36, 49-56.	0.8	49
75	Technical and clinical view on ambulatory assessment in Parkinson's disease. Acta Neurologica Scandinavica, 2014, 130, 139-147.	1.0	49
76	Three-Dimensional Body and Centre of Mass Kinematics in Alpine Ski Racing Using Differential GNSS and Inertial Sensors. Remote Sensing, 2016, 8, 671.	1.8	49
77	Validation of functional calibration and strap-down joint drift correction for computing 3D joint angles of knee, hip, and trunk in alpine skiing. PLoS ONE, 2017, 12, e0181446.	1.1	48
78	Day-to-Day Variability of Physical Activity of Older Adults Living in the Community. Journal of Aging and Physical Activity, 2010, 18, 75-86.	0.5	47
79	Reliability and validity of the inertial sensor-based Timed "Up and Go" test in individuals affected by stroke. Journal of Rehabilitation Research and Development, 2016, 53, 599-610.	1.6	47
80	Gait speed in clinical and daily living assessments in Parkinson's disease patients: performance versus capacity. Npj Parkinson's Disease, 2021, 7, 24.	2.5	44
81	A randomised controlled clinical trial and gait analysis of fixed- and mobile-bearing total knee replacements with a five-year follow-up. Journal of Bone and Joint Surgery: British Volume, 2012, 94-B, 648-655.	3.4	43
82	Outcome of unilateral ankle arthrodesis and total ankle replacement in terms of bilateral gait mechanics. Journal of Orthopaedic Research, 2014, 32, 377-384.	1.2	43
83	Physical Behavior in Older Persons during Daily Life: Insights from Instrumented Shoes. Sensors, 2016, 16, 1225.	2.1	42
84	A wrist sensor and algorithm to determine instantaneous walking cadence and speed in daily life walking. Medical and Biological Engineering and Computing, 2017, 55, 1773-1785.	1.6	42
85	The Use of Body Worn Sensors for Detecting the Vibrations Acting on the Lower Back in Alpine Ski Racing. Frontiers in Physiology, 2017, 8, 522.	1.3	42
86	What is the Best Configuration of Wearable Sensors to Measure Spatiotemporal Gait Parameters in Children with Cerebral Palsy?. Sensors, 2018, 18, 394.	2.1	42
87	Clinical factors associated with gait alterations in diabetic patients. Diabetic Medicine, 2009, 26, 1003-1009.	1.2	41
88	Real-World Gait Speed Estimation Using Wrist Sensor: A Personalized Approach. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 658-668.	3.9	41
89	Comparison of gait characteristics between clinical and daily life settings in children with cerebral palsy. Scientific Reports, 2020, 10, 2091.	1.6	41
90	Criteria for evaluation of measurement properties of clinical balance measures for use in fall prevention studies. Journal of Evaluation in Clinical Practice, 2008, 14, 236-240.	0.9	39

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91	Gait Assessment in Children With Duchenne Muscular Dystrophy During Long-Distance Walking. Journal of Child Neurology, 2012, 27, 30-38.	0.7	39
92	An Inertial Sensor-Based Method for Estimating the Athlete's Relative Joint Center Positions and Center of Mass Kinematics in Alpine Ski Racing. Frontiers in Physiology, 2017, 8, 850.	1.3	39
93	Soft tissue artifact distribution on lower limbs during treadmill gait: Influence of skin markers' location on cluster design. Journal of Biomechanics, 2015, 48, 1965-1971.	0.9	37
94	Gait Symmetry Assessment with a Low Back 3D Accelerometer in Post-Stroke Patients. Sensors, 2018, 18, 3322.	2.1	37
95	Assessment of Physical Activity in Older People With and Without Cognitive Impairment. Journal of Aging and Physical Activity, 2011, 19, 347-372.	0.5	35
96	A New Approach for Quantitative Analysis of Inter-Joint Coordination During Gait. IEEE Transactions on Biomedical Engineering, 2008, 55, 755-764.	2.5	34
97	Nonlinear analysis of human physical activity patterns in health and disease. Physical Review E, 2008, 77, 021913.	0.8	34
98	Measurement of the dynamics in ski jumping using a wearable inertial sensor-based system. Journal of Sports Sciences, 2014, 32, 591-600.	1.0	34
99	A wearable system for multi-segment foot kinetics measurement. Journal of Biomechanics, 2014, 47, 1704-1711.	0.9	34
100	Fall detection algorithms for real-world falls harvested from lumbar sensors in the elderly population: A machine learning approach. , 2016, 2016, 3712-3715.		34
101	Protocol for the PreventIT feasibility randomised controlled trial of a lifestyle-integrated exercise intervention in young older adults. BMJ Open, 2019, 9, e023526.	0.8	34
102	Evaluation of a mixed approach combining stationary and wearable systems to monitor gait over long distance. Journal of Biomechanics, 2010, 43, 2196-2202.	0.9	33
103	An effortless procedure to align the local frame of an inertial measurement unit to the local frame of another motion capture system. Journal of Biomechanics, 2012, 45, 2297-2300.	0.9	32
104	Course Setting as a Prevention Measure for Overuse Injuries of the Back in Alpine Ski Racing. Orthopaedic Journal of Sports Medicine, 2016, 4, 232596711663071.	0.8	32
105	Objective evaluation of shoulder function using body-fixed sensors: a new way to detect early treatment failures?. Journal of Shoulder and Elbow Surgery, 2011, 20, 1074-1081.	1.2	31
106	A Hidden Markov Model of the breaststroke swimming temporal phases using wearable inertial measurement units. , 2013, , .		31
107	Effect of Manual Lymphatic Drainage After Total Knee Arthroplasty: A Randomized Controlled Trial. Archives of Physical Medicine and Rehabilitation, 2016, 97, 674-682.	0.5	31
108	Unraveling dynamics of human physical activity patterns in chronic pain conditions. Scientific Reports, 2013, 3, 2019.	1.6	30

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109	Assessment of Physical Activity of Patients With Chronic Pain. Neuromodulation, 2014, 17, 42-47.	0.4	30
110	Estimating dominant upper-limb segments during daily activity. Gait and Posture, 2008, 27, 368-375.	0.6	29
111	Ambulatory measurement of ankle kinetics for clinical applications. Journal of Biomechanics, 2011, 44, 2712-2718.	0.9	29
112	Concern about Falling and Complexity of Free-Living Physical Activity Patterns in Well-Functioning Older Adults. Gerontology, 2018, 64, 603-611.	1.4	29
113	Locomotion and cadence detection using a single trunk-fixed accelerometer: validity for children with cerebral palsy in daily life-like conditions. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 24.	2.4	29
114	Elevated heels and adaptation to new shoes in frail elderly women. Zeitschrift Fur Gerontologie Und Geriatrie, 2003, 36, 29-34.	0.8	27
115	Improved Physical Activity in Patients Treated for Chronic Pain by Spinal Cord Stimulation. Neuromodulation, 2005, 8, 40-48.	0.4	27
116	Instrumented Knee Prosthesis for Force and Kinematics Measurements. IEEE Transactions on Automation Science and Engineering, 2013, 10, 615-624.	3.4	27
117	An inertial sensor-based system for spatio-temporal analysis in classic cross-country skiing diagonal technique. Journal of Biomechanics, 2015, 48, 3199-3205.	0.9	27
118	Can we predict outcome of surgical reconstruction of Charcot neuroarthropathy by dynamic plantar pressure assessment?â€"A proof of concept study. Gait and Posture, 2010, 31, 87-92.	0.6	25
119	Wearable Barometric Pressure Sensor to Improve Postural Transition Recognition of Mobility-Impaired Stroke Patients. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 1210-1217.	2.7	25
120	Drift-Free Foot Orientation Estimation in Running Using Wearable IMU. Frontiers in Bioengineering and Biotechnology, 2020, 8, 65.	2.0	25
121	Biomechanical Response of the Lower Extremity to Running-Induced Acute Fatigue: A Systematic Review. Frontiers in Physiology, 2021, 12, 646042.	1.3	25
122	Filtering by adaptive sampling (FAS). Medical and Biological Engineering and Computing, 1988, 26, 658-662.	1.6	24
123	Level, downhill and uphill walking identification using neural networks. Electronics Letters, 1993, 29, 1563.	0.5	24
124	Outcome evaluation of ankle osteoarthritis treatments: Plantar pressure analysis during relatively long-distance walking. Clinical Biomechanics, 2011, 26, 397-404.	0.5	24
125	Detection of the movement of the humerus during daily activity. Medical and Biological Engineering and Computing, 2009, 47, 467-474.	1.6	23
126	Vulnerability in high-functioning persons aged 65 to 70 years: the importance of the fear factor. Aging Clinical and Experimental Research, 2010, 22, 212-218.	1.4	23

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127	Suitability of commercial barometric pressure sensors to distinguish sitting and standing activities for wearable monitoring. Medical Engineering and Physics, 2014, 36, 739-744.	0.8	23
128	Geriatric rehabilitation after hip fracture. Zeitschrift Fur Gerontologie Und Geriatrie, 2014, 47, 236-242.	0.8	23
129	An Accurate Wearable Foot Clearance Estimation System: Toward a Real-Time Measurement System. IEEE Sensors Journal, 2017, 17, 2542-2549.	2.4	23
130	Algorithms for Walking Speed Estimation Using a Lower-Back-Worn Inertial Sensor: A Cross-Validation on Speed Ranges. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1955-1964.	2.7	23
131	Cognitive Loading Affects Motor Awareness and Movement Kinematics but Not Locomotor Trajectories during Goal-Directed Walking in a Virtual Reality Environment. PLoS ONE, 2014, 9, e85560.	1.1	23
132	Reliability of diabetic patientsâ€™ gait parameters in a challenging environment. Gait and Posture, 2008, 28, 680-686.	0.6	22
133	Development of a standard fall data format for signals from body-worn sensors. Zeitschrift Fur Gerontologie Und Geriatrie, 2013, 46, 720-726.	0.8	22
134	Distribution of arm velocity and frequency of arm usage during daily activity: Objective outcome evaluation after shoulder surgery. Gait and Posture, 2013, 38, 247-252.	0.6	22
135	Inter-limb coordination and energy cost in swimming. Journal of Science and Medicine in Sport, 2014, 17, 439-444.	0.6	22
136	Behavioural compass: animal behaviour recognition using magnetometers. Movement Ecology, 2019, 7, 28.	1.3	22
137	Real-World Gait Bout Detection Using a Wrist Sensor: An Unsupervised Real-Life Validation. IEEE Access, 2020, 8, 102883-102896.	2.6	21
138	Measuring upper limb function in children with hemiparesis with 3D inertial sensors. Child's Nervous System, 2017, 33, 2159-2168.	0.6	20
139	Walking Speed of Children and Adolescents With Cerebral Palsy: Laboratory Versus Daily Life. Frontiers in Bioengineering and Biotechnology, 2020, 8, 812.	2.0	20
140	Kinematics and dynamic complexity of postural transitions in frail elderly subjects. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 6118-21.	0.5	19
141	Knee Implant Loosening Detection: A Vibration Analysis Investigation. Annals of Biomedical Engineering, 2018, 46, 97-107.	1.3	19
142	Fractal temporal organisation of motricity is altered in major depression. Psychiatry Research, 2012, 200, 288-293.	1.7	18
143	Characterization of lower-limbs inter-segment coordination during the take-off extension in ski jumping. Human Movement Science, 2013, 32, 741-752.	0.6	18
144	Front-crawl stroke descriptors variability assessment for skill characterisation. Journal of Sports Sciences, 2016, 34, 1405-1412.	1.0	18

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145	Total hip arthroplasty using a cementless dual-mobility cup provides increased stability and favorable gait parameters at five years follow-up. Orthopaedics and Traumatology: Surgery and Research, 2017, 103, 21-25.	0.9	18
146	Complexity of Daily Physical Activity Is More Sensitive Than Conventional Metrics to Assess Functional Change in Younger Older Adults. Sensors, 2018, 18, 2032.	2.1	18
147	The effects of dual tasks on gait in children with cerebral palsy. Gait and Posture, 2019, 70, 148-155.	0.6	18
148	Postural transitions detection and characterization in healthy and patient populations using a single waist sensor. Journal of NeuroEngineering and Rehabilitation, 2020, 17, 70.	2.4	18
149	Segmentation of foot and ankle complex based on kinematic criteria. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 773-781.	0.9	17
150	Optimal slopes and speeds in uphill ski mountaineering: a laboratory study. European Journal of Applied Physiology, 2016, 116, 1011-1019.	1.2	17
151	A New Training Assessment Method for Alpine Ski Racing: Estimating Center of Mass Trajectory by Fusing Inertial Sensors With Periodically Available Position Anchor Points. Frontiers in Physiology, 2018, 9, 1203.	1.3	17
152	Editorial: Wearable Sensor Technology for Monitoring Training Load and Health in the Athletic Population. Frontiers in Physiology, 2019, 10, 1520.	1.3	17
153	A Bayesian approach for pervasive estimation of breaststroke velocity using a wearable IMU. Pervasive and Mobile Computing, 2015, 19, 37-46.	2.1	16
154	Toward a Remote Assessment of Walking Bout and Speed: Application in Patients With Multiple Sclerosis. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 4217-4228.	3.9	16
155	Level, Uphill, and Downhill Running Economy Values Are Correlated Except on Steep Slopes. Frontiers in Physiology, 2021, 12, 697315.	1.3	16
156	Indirect Estimation of Breathing Rate from Heart Rate Monitoring System during Running. Sensors, 2021, 21, 5651.	2.1	16
157	Nonlinear Analysis of Physiological Time Series. , 2009, , 307-333.		16
158	Can accelerometry accurately predict the energy cost of uphill/downhill walking?. Ergonomics, 2001, 44, 48-62.	1.1	16
159	Enclosed Electronic System for Force Measurements in Knee Implants. Sensors, 2014, 14, 15009-15021.	2.1	15
160	Assessment of the lower limb soft tissue artefact at marker-cluster level with a high-density marker set during walking. Journal of Biomechanics, 2017, 62, 21-26.	0.9	15
161	Evaluation of knee functional calibration with and without the effect of soft tissue artefact. Journal of Biomechanics, 2017, 62, 53-59.	0.9	15
162	Standing Height as a Prevention Measure for Overuse Injuries of the Back in Alpine Ski Racing: A Kinematic and Kinetic Study of Giant Slalom. Orthopaedic Journal of Sports Medicine, 2018, 6, 232596711774784.	0.8	15

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163	Real-world gait speed estimation, frailty and handgrip strength: a cohort-based study. Scientific Reports, 2021, 11, 18966.	1.6	15
164	An ambulatory system for physical activity monitoring in elderly. , 0, , .		14
165	An ambulatory system to quantify bradykinesia and tremor in Parkinson's disease. , 0, , .		14
166	Instrumented prosthesis for knee implants monitoring. , 2011, , .		14
167	Design and test of a MEMS strain-sensing device for monitoring artificial knee implants. Biomedical Microdevices, 2013, 15, 831-839.	1.4	14
168	A Sensor Fusion Approach to the Estimation of Instantaneous Velocity Using Single Wearable Sensor During Sprint. Frontiers in Bioengineering and Biotechnology, 2020, 8, 838.	2.0	14
169	Estimation of Front-Crawl Energy Expenditure Using Wearable Inertial Measurement Units. IEEE Sensors Journal, 2014, 14, 1020-1027.	2.4	13
170	Alteration and recovery of arm usage in daily activities after rotator cuff surgery. Journal of Shoulder and Elbow Surgery, 2015, 24, 1346-1352.	1.2	13
171	A Novel Macro-Micro Approach for Swimming Analysis in Main Swimming Techniques Using IMU Sensors. Frontiers in Bioengineering and Biotechnology, 2020, 8, 597738.	2.0	13
172	Comparison of Laboratory and Daily-Life Gait Speed Assessment during ON and OFF States in Parkinsonâ€™s Disease. Sensors, 2021, 21, 3974.	2.1	13
173	FALLS SELFâ€€FFICACY AND GAIT PERFORMANCE AFTER GAIT AND BALANCE TRAINING IN OLDER PEOPLE. Journal of the American Geriatrics Society, 2008, 56, 1154-1156.	1.3	12
174	Quantifying dimensions of physical behavior in chronic pain conditions. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 85.	2.4	12
175	Optimal slopes and speeds in uphill ski mountaineering: a field study. European Journal of Applied Physiology, 2016, 116, 2017-2024.	1.2	12
176	A patient-specific model of total knee arthroplasty to estimate patellar strain: A case study. Clinical Biomechanics, 2016, 32, 212-219.	0.5	12
177	Digital Technology to Deliver a Lifestyle-Integrated Exercise Intervention in Young Seniorsâ€”The PreventIT Feasibility Randomized Controlled Trial. Frontiers in Digital Health, 2020, 2, 10.	1.5	12
178	Real-world speed estimation using single trunk IMU: methodological challenges for impaired gait patterns. , 2020, 2020, 4596-4599.		12
179	Accurate internalâ€“external rotation measurement in total knee prostheses: A magnetic solution. Journal of Biomechanics, 2012, 45, 2023-2027.	0.9	11
180	Accurate Measurement of Concurrent Flexionâ€“Extension and Internalâ€“External Rotations in Smart Knee Prostheses. IEEE Transactions on Biomedical Engineering, 2013, 60, 2504-2510.	2.5	11

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