

Kamair Aminian

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/5545677/kamair-aminian-publications-by-year.pdf>

Version: 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

256
papers

10,977
citations

52
h-index

98
g-index

285
ext. papers

12,844
ext. citations

3.3
avg, IF

6.26
L-index

#	Paper	IF	Citations
256	Concurrent Evolution of Biomechanical and Physiological Parameters With Running-Induced Acute Fatigue.. <i>Frontiers in Physiology</i> , 2022 , 13, 814172	4.6	0
255	SmartSwim, a Novel IMU-Based Coaching Assistance.. <i>Sensors</i> , 2022 , 22,	3.8	2
254	A functional approach towards the design, development, and test of an affordable dynamic prosthetic foot.. <i>PLoS ONE</i> , 2022 , 17, e0266656	3.7	
253	Effect of Fear of Falling on Mobility Measured During Lab and Daily Activity Assessments in Parkinson's Disease.. <i>Frontiers in Aging Neuroscience</i> , 2021 , 13, 722830	5.3	1
252	Technical validation of real-world monitoring of gait: a multicentric observational study. <i>BMJ Open</i> , 2021 , 11, e050785	3	8
251	Gait speed in clinical and daily living assessments in Parkinson's disease patients: performance versus capacity. <i>Npj Parkinson's Disease</i> , 2021 , 7, 24	9.7	12
250	Continuous Analysis of Marathon Running Using Inertial Sensors: Hitting Two Walls?. <i>International Journal of Sports Medicine</i> , 2021 , 42, 1182-1190	3.6	2
249	Comparison of Laboratory and Daily-Life Gait Speed Assessment during ON and OFF States in Parkinson's Disease. <i>Sensors</i> , 2021 , 21,	3.8	1
248	Falls Efficacy Is Associated With Better Gait and Functional Outcomes After Rehabilitation in Older Patients. <i>Archives of Physical Medicine and Rehabilitation</i> , 2021 , 102, 1134-1139	2.8	1
247	Clinical value of assessing motor performance in postacute stroke patients. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2021 , 18, 102	5.3	2
246	Level, Uphill, and Downhill Running Economy Values Are Correlated Except on Steep Slopes. <i>Frontiers in Physiology</i> , 2021 , 12, 697315	4.6	5
245	Biomechanical Ambulatory Assessment of 3D Knee Angle Using Novel Inertial Sensor-Based Technique. <i>IEEE Access</i> , 2021 , 9, 36559-36570	3.5	1
244	Algorithms for Walking Speed Estimation Using a Lower-Back-Worn Inertial Sensor: A Cross-Validation on Speed Ranges. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2021 , 29, 1955-1964	4.8	3
243	Toward a Remote Assessment of Walking Bout and Speed: Application in Patients With Multiple Sclerosis. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2021 , 25, 4217-4228	7.2	3
242	Running Speed Estimation Using Shoe-Worn Inertial Sensors: Direct Integration, Linear, and Personalized Model. <i>Frontiers in Sports and Active Living</i> , 2021 , 3, 585809	2.3	0
241	Biomechanical Response of the Lower Extremity to Running-Induced Acute Fatigue: A Systematic Review. <i>Frontiers in Physiology</i> , 2021 , 12, 646042	4.6	6
240	Indirect Estimation of Breathing Rate from Heart Rate Monitoring System during Running. <i>Sensors</i> , 2021 , 21,	3.8	6

239	Instrumented 5-Time Sit-To-Stand Test: Parameters Predicting Serious Falls beyond the Duration of the Test. <i>Gerontology</i> , 2021 , 1-14	5.5	2
238	Real-world gait speed estimation, frailty and handgrip strength: a cohort-based study. <i>Scientific Reports</i> , 2021 , 11, 18966	4.9	1
237	Swimming Phase-Based Performance Evaluation Using a Single IMU in Main Swimming Techniques.. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021 , 9, 793302	5.8	1
236	Postural transitions detection and characterization in healthy and patient populations using a single waist sensor. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2020 , 17, 70	5.3	9
235	A Vibrational Technique for In Vitro Intraoperative Prosthesis Fixation Monitoring. <i>IEEE Transactions on Biomedical Engineering</i> , 2020 , 67, 2953-2964	5	2
234	Drift-Free Foot Orientation Estimation in Running Using Wearable IMU. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 65	5.8	15
233	Comparison of gait characteristics between clinical and daily life settings in children with cerebral palsy. <i>Scientific Reports</i> , 2020 , 10, 2091	4.9	16
232	Long-term unsupervised mobility assessment in movement disorders. <i>Lancet Neurology</i> , 2020 , 19, 462-470	24.1	74
231	Hurdle Clearance Detection and Spatiotemporal Analysis in 400 Meters Hurdles Races Using Shoe-Mounted Magnetic and Inertial Sensors. <i>Sensors</i> , 2020 , 20,	3.8	3
230	Changes in spatio-temporal gait parameters and vertical speed during an extreme mountain ultra-marathon. <i>European Journal of Sport Science</i> , 2020 , 20, 1339-1345	3.9	5
229	Real-World Gait Bout Detection Using a Wrist Sensor: An Unsupervised Real-Life Validation. <i>IEEE Access</i> , 2020 , 8, 102883-102896	3.5	3
228	The association of basic and challenging motor capacity with mobility performance and falls in young seniors. <i>Archives of Gerontology and Geriatrics</i> , 2020 , 90, 104134	4	3
227	Walking Speed of Children and Adolescents With Cerebral Palsy: Laboratory Versus Daily Life. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 812	5.8	9
226	Digital Technology to Deliver a Lifestyle-Integrated Exercise Intervention in Young Seniors-The PreventIT Feasibility Randomized Controlled Trial. <i>Frontiers in Digital Health</i> , 2020 , 2, 10	2.3	5
225	Real-world speed estimation using single trunk IMU: methodological challenges for impaired gait patterns. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2020 , 2020, 4596-4599	0.9	1
224	Seek and learn: Automated identification of microevents in animal behaviour using envelopes of acceleration data and machine learning. <i>Methods in Ecology and Evolution</i> , 2020 , 11, 1639-1651	7.7	5
223	A Sensor Fusion Approach to the Estimation of Instantaneous Velocity Using Single Wearable Sensor During Sprint. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 838	5.8	5
222	Real-World Gait Speed Estimation Using Wrist Sensor: A Personalized Approach. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2020 , 24, 658-668	7.2	16

221	A Robotic Glenohumeral Simulator for Investigating Prosthetic Implant Subluxation. <i>Journal of Biomechanical Engineering</i> , 2020 , 142,	2.1	1
220	A Novel Macro-Micro Approach for Swimming Analysis in Main Swimming Techniques Using IMU Sensors. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 597738	5.8	3
219	Behavioural compass: animal behaviour recognition using magnetometers. <i>Movement Ecology</i> , 2019 , 7, 28	4.6	13
218	Protocol for the PreventIT feasibility randomised controlled trial of a lifestyle-integrated exercise intervention in young older adults. <i>BMJ Open</i> , 2019 , 9, e023526	3	19
217	A Magnet-Based Timing System to Detect Gate Crossings in Alpine Ski Racing. <i>Sensors</i> , 2019 , 19,	3.8	3
216	A novel biomechanical approach for animal behaviour recognition using accelerometers. <i>Methods in Ecology and Evolution</i> , 2019 , 10, 802-814	7.7	32
215	The effects of dual tasks on gait in children with cerebral palsy. <i>Gait and Posture</i> , 2019 , 70, 148-155	2.6	10
214	Locomotion and cadence detection using a single trunk-fixed accelerometer: validity for children with cerebral palsy in daily life-like conditions. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2019 , 16, 24	5.3	12
213	A Personalized Approach to Improve Walking Detection in Real-Life Settings: Application to Children with Cerebral Palsy. <i>Sensors</i> , 2019 , 19,	3.8	3
212	Abnormal postural behavior in patients with functional movement disorders during exposure to stress. <i>Psychoneuroendocrinology</i> , 2019 , 101, 232-239	5	6
211	Standing Height as a Prevention Measure for Overuse Injuries of the Back in Alpine Ski Racing: A Kinematic and Kinetic Study of Giant Slalom. <i>Orthopaedic Journal of Sports Medicine</i> , 2018 , 6, 2325967117747843	3.5	7
210	Classification and characterization of postural transitions using instrumented shoes. <i>Medical and Biological Engineering and Computing</i> , 2018 , 56, 1403-1412	3.1	10
209	Error performances of a model-based biplane fluoroscopic system for tracking knee prosthesis during treadmill gait task. <i>Medical and Biological Engineering and Computing</i> , 2018 , 56, 307-316	3.1	3
208	Knee Implant Loosening Detection: A Vibration Analysis Investigation. <i>Annals of Biomedical Engineering</i> , 2018 , 46, 97-107	4.7	12
207	Accurate Estimation of Running Temporal Parameters Using Foot-Worn Inertial Sensors. <i>Frontiers in Physiology</i> , 2018 , 9, 610	4.6	32
206	What is the Best Configuration of Wearable Sensors to Measure Spatiotemporal Gait Parameters in Children with Cerebral Palsy?. <i>Sensors</i> , 2018 , 18,	3.8	25
205	Feet Fidgeting Detection Based on Accelerometers Using Decision Tree Learning and Gradient Boosting. <i>Lecture Notes in Computer Science</i> , 2018 , 75-84	0.9	4
204	Simple Gait Symmetry Measures Based on Foot Angular Velocity: Analysis in Post Stroke Patients. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2018 , 2018, 5442-5445	0.9	0

203	Gait Symmetry Assessment with a Low Back 3D Accelerometer in Post-Stroke Patients. <i>Sensors</i> , 2018 , 18,	3.8	25
202	A New Training Assessment Method for Alpine Ski Racing: Estimating Center of Mass Trajectory by Fusing Inertial Sensors With Periodically Available Position Anchor Points. <i>Frontiers in Physiology</i> , 2018 , 9, 1203	4.6	7
201	Complexity of Daily Physical Activity Is More Sensitive Than Conventional Metrics to Assess Functional Change in Younger Older Adults. <i>Sensors</i> , 2018 , 18,	3.8	9
200	Concern about Falling and Complexity of Free-Living Physical Activity Patterns in Well-Functioning Older Adults. <i>Gerontology</i> , 2018 , 64, 603-611	5.5	15
199	Standardization proposal of soft tissue artefact description for data sharing in human motion measurements. <i>Journal of Biomechanics</i> , 2017 , 62, 5-13	2.9	41
198	A wrist sensor and algorithm to determine instantaneous walking cadence and speed in daily life walking. <i>Medical and Biological Engineering and Computing</i> , 2017 , 55, 1773-1785	3.1	29
197	An Accurate Wearable Foot Clearance Estimation System: Toward a Real-Time Measurement System. <i>IEEE Sensors Journal</i> , 2017 , 17, 2542-2549	4	19
196	Bone orientation and position estimation errors using Cosserat point elements and least squares methods: Application to gait. <i>Journal of Biomechanics</i> , 2017 , 62, 110-116	2.9	6
195	Total hip arthroplasty using a cementless dual-mobility cup provides increased stability and favorable gait parameters at five years follow-up. <i>Orthopaedics and Traumatology: Surgery and Research</i> , 2017 , 103, 21-25	2.9	8
194	Assessment of the lower limb soft tissue artefact at marker-cluster level with a high-density marker set during walking. <i>Journal of Biomechanics</i> , 2017 , 62, 21-26	2.9	8
193	Utilisation de cupules à double mobilité non cimentées en arthroplastie totale de hanche augmente la stabilité et montre des paramètres de marche avantageux à 5 ans. <i>Revue De Chirurgie Orthopedique Et Traumatologique</i> , 2017 , 103, 19-23	0	
192	Measuring upper limb function in children with hemiparesis with 3D inertial sensors. <i>Childs Nervous System</i> , 2017 , 33, 2159-2168	1.7	12
191	Wearable sensors objectively measure gait parameters in Parkinson's disease. <i>PLoS ONE</i> , 2017 , 12, e0183989	3.989	148
190	Validation of functional calibration and strap-down joint drift correction for computing 3D joint angles of knee, hip, and trunk in alpine skiing. <i>PLoS ONE</i> , 2017 , 12, e0181446	3.7	36
189	DYNAMIC COMPLEXITY OF PHYSICAL ACTIVITY PATTERNS: NEW CONCEPTS FOR GERIATRIC ASSESSMENT. <i>Innovation in Aging</i> , 2017 , 1, 1160-1160	0.1	78
188	Locomotion detection and cadence estimation using 3D wrist accelerometer: an in-field validation. <i>Gait and Posture</i> , 2017 , 57, 186-187	2.6	2
187	Evaluation of knee functional calibration with and without the effect of soft tissue artefact. <i>Journal of Biomechanics</i> , 2017 , 62, 53-59	2.9	10
186	The Use of Body Worn Sensors for Detecting the Vibrations Acting on the Lower Back in Alpine Ski Racing. <i>Frontiers in Physiology</i> , 2017 , 8, 522	4.6	30

185	An Inertial Sensor-Based Method for Estimating the Athlete's Relative Joint Center Positions and Center of Mass Kinematics in Alpine Ski Racing. <i>Frontiers in Physiology</i> , 2017 , 8, 850	4.6	30
184	Mobile Health Applications to Promote Active and Healthy Ageing. <i>Sensors</i> , 2017 , 17,	3.8	88
183	Heightened clinical utility of smartphone versus body-worn inertial system for shoulder function B-B score. <i>PLoS ONE</i> , 2017 , 12, e0174365	3.7	4
182	Optimal slopes and speeds in uphill ski mountaineering: a field study. <i>European Journal of Applied Physiology</i> , 2016 , 116, 2017-24	3.4	7
181	Measuring spatio-temporal parameters of uphill ski-mountaineering with ski-fixed inertial sensors. <i>Journal of Biomechanics</i> , 2016 , 49, 3052-3055	2.9	8
180	Fall detection algorithms for real-world falls harvested from lumbar sensors in the elderly population: a machine learning approach. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2016 , 2016, 2712-2715	0.9	27
179	The FARSEEING real-world fall repository: a large-scale collaborative database to collect and share sensor signals from real-world falls. <i>European Review of Aging and Physical Activity</i> , 2016 , 13, 8	6.5	43
178	A patient-specific model of total knee arthroplasty to estimate patellar strain: A case study. <i>Clinical Biomechanics</i> , 2016 , 32, 212-9	2.2	10
177	Instrumented shoes for activity classification in the elderly. <i>Gait and Posture</i> , 2016 , 44, 12-7	2.6	48
176	Course Setting as a Prevention Measure for Overuse Injuries of the Back in Alpine Ski Racing: A Kinematic and Kinetic Study of Giant Slalom and Slalom. <i>Orthopaedic Journal of Sports Medicine</i> , 2016 , 4, 2325967116630719	3.5	27
175	Effect of Manual Lymphatic Drainage After Total Knee Arthroplasty: A Randomized Controlled Trial. <i>Archives of Physical Medicine and Rehabilitation</i> , 2016 , 97, 674-82	2.8	19
174	Front-crawl stroke descriptors variability assessment for skill characterisation. <i>Journal of Sports Sciences</i> , 2016 , 34, 1405-12	3.6	15
173	Reliability and validity of the inertial sensor-based Timed "Up and Go" test in individuals affected by stroke. <i>Journal of Rehabilitation Research and Development</i> , 2016 , 53, 599-610		34
172	Advances in Long Term Physical Behaviour Monitoring. <i>BioMed Research International</i> , 2016 , 2016, 6745760		2
171	Three-Dimensional Body and Centre of Mass Kinematics in Alpine Ski Racing Using Differential GNSS and Inertial Sensors. <i>Remote Sensing</i> , 2016 , 8, 671	5	36
170	Physical Behavior in Older Persons during Daily Life: Insights from Instrumented Shoes. <i>Sensors</i> , 2016 , 16,	3.8	30
169	MEMS Inertial Motion Sensing Watch for Measuring Walking and Running Activities 2016 ,		1
168	Wearable Barometric Pressure Sensor to Improve Postural Transition Recognition of Mobility-Impaired Stroke Patients. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2016 , 24, 1210-1217	4.8	22

167	Optimal slopes and speeds in uphill ski mountaineering: a laboratory study. <i>European Journal of Applied Physiology</i> , 2016 , 116, 1011-9	3.4	9
166	Quantifying dimensions of physical behavior in chronic pain conditions. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2016 , 13, 85	5.3	10
165	Patterns of human activity behavior 2016 ,		1
164	Instrumented Shoes for Real-Time Activity Monitoring Applications. <i>Studies in Health Technology and Informatics</i> , 2016 , 225, 663-7	0.5	
163	Comparison of a dedicated body-worn inertial system and a smartphone for shoulder function and arm elevation evaluation. <i>Physiotherapy</i> , 2015 , 101, e1205-e1206	3	2
162	An inertial sensor-based system for spatio-temporal analysis in classic cross-country skiing diagonal technique. <i>Journal of Biomechanics</i> , 2015 , 48, 3199-205	2.9	19
161	Soft tissue artifact distribution on lower limbs during treadmill gait: Influence of skin markers' location on cluster design. <i>Journal of Biomechanics</i> , 2015 , 48, 1965-71	2.9	27
160	Alteration and recovery of arm usage in daily activities after rotator cuff surgery. <i>Journal of Shoulder and Elbow Surgery</i> , 2015 , 24, 1346-52	4.3	10
159	Locally Linear Neuro-Fuzzy Estimate of the Prosthetic Knee Angle and Its Validation in a Robotic Simulator. <i>IEEE Sensors Journal</i> , 2015 , 15, 6271-6278	4	7
158	A Bayesian approach for pervasive estimation of breaststroke velocity using a wearable IMU. <i>Pervasive and Mobile Computing</i> , 2015 , 19, 37-46	3.5	13
157	Improving activity recognition using a wearable barometric pressure sensor in mobility-impaired stroke patients. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2015 , 12, 72	5.3	43
156	Measurement properties of the smartphone-based B-B Score in current shoulder pathologies. <i>Sensors</i> , 2015 , 15, 26801-17	3.8	4
155	Outcome of ankle arthrodesis and total ankle replacement for ankle arthrosis in terms of gait variability. <i>Journal of Biomedical Engineering and Informatics</i> , 2015 , 2, 31		
154	Temporal and kinematic variables for real-world falls harvested from lumbar sensors in the elderly population. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2015 , 2015, 5183-6	0.9	4
153	Enhancing clinically-relevant shoulder function assessment using only essential movements. <i>Physiological Measurement</i> , 2015 , 36, 547-60	2.9	9
152	A wearable system for multi-segment foot kinetics measurement. <i>Journal of Biomechanics</i> , 2014 , 47, 1704-11	2.9	22
151	Technical and clinical view on ambulatory assessment in Parkinson's disease. <i>Acta Neurologica Scandinavica</i> , 2014 , 130, 139-47	3.8	38
150	Recommendations for standardizing validation procedures assessing physical activity of older persons by monitoring body postures and movements. <i>Sensors</i> , 2014 , 14, 1267-77	3.8	35

149	Assessment of physical activity of patients with chronic pain. <i>Neuromodulation</i> , 2014 , 17 Suppl 1, 42-7	3.1	20
148	Outcome of unilateral ankle arthrodesis and total ankle replacement in terms of bilateral gait mechanics. <i>Journal of Orthopaedic Research</i> , 2014 , 32, 377-84	3.8	37
147	Reference-Free Automated Magnetic Sensor Calibration for Angle Estimation in Smart Knee Prostheses. <i>IEEE Sensors Journal</i> , 2014 , 14, 1788-1796	4	5
146	Assessing physical activity in inpatient rehabilitation Sensor-based validation of the PAIR. <i>European Review of Aging and Physical Activity</i> , 2014 , 11, 133-139	6.5	1
145	Inter-limb coordination and energy cost in swimming. <i>Journal of Science and Medicine in Sport</i> , 2014 , 17, 439-44	4.4	15
144	Design and Development of an Inertial Sensor Based Exergame for Recovery-Step Training 2014 ,		2
143	Measurement of the dynamics in ski jumping using a wearable inertial sensor-based system. <i>Journal of Sports Sciences</i> , 2014 , 32, 591-600	3.6	28
142	Evaluation of muscular activity duration in shoulders with rotator cuff tears using inertial sensors and electromyography. <i>Physiological Measurement</i> , 2014 , 35, 2389-400	2.9	7
141	Estimation of Front-Crawl Energy Expenditure Using Wearable Inertial Measurement Units. <i>IEEE Sensors Journal</i> , 2014 , 14, 1020-1027	4	11
140	Energy Expenditure Estimation Using Accelerometry and Heart Rate for Multiple Sclerosis and Healthy Older Adults 2014 ,		1
139	Enclosed electronic system for force measurements in knee implants. <i>Sensors</i> , 2014 , 14, 15009-21	3.8	12
138	Gait analysis using shoe-worn inertial sensors 2014 ,		7
137	Implantable and wearable measurement system for smart knee prosthesis 2014 ,		2
136	Spatio-temporal gait analysis in children with cerebral palsy using, foot-worn inertial sensors. <i>Gait and Posture</i> , 2014 , 39, 436-42	2.6	60
135	Suitability of commercial barometric pressure sensors to distinguish sitting and standing activities for wearable monitoring. <i>Medical Engineering and Physics</i> , 2014 , 36, 739-44	2.4	21
134	A wearable inertial system to assess the cervical spine mobility: comparison with an optoelectronic-based motion capture evaluation. <i>Medical Engineering and Physics</i> , 2014 , 36, 49-56	2.4	38
133	Smart instrumentation for determination of ligament stiffness and ligament balance in total knee arthroplasty. <i>Medical Engineering and Physics</i> , 2014 , 36, 721-5	2.4	1
132	Geriatric rehabilitation after hip fracture. Role of body-fixed sensor measurements of physical activity. <i>Zeitschrift Fur Gerontologie Und Geriatrie</i> , 2014 , 47, 236-42	2.7	14

131	Total hip replacement with a collarless polished cemented anatomic stem: clinical and gait analysis results at ten years follow-up. <i>International Orthopaedics</i> , 2014 , 38, 717-24	3.8	4
130	Cognitive loading affects motor awareness and movement kinematics but not locomotor trajectories during goal-directed walking in a virtual reality environment. <i>PLoS ONE</i> , 2014 , 9, e85560	3.7	13
129	How well do the muscular synergies extracted via non-negative matrix factorisation explain the variation of torque at shoulder joint?. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2013 , 16, 291-301	2.1	8
128	Characterization of lower-limbs inter-segment coordination during the take-off extension in ski jumping. <i>Human Movement Science</i> , 2013 , 32, 741-52	2.4	17
127	Estimation of prosthetic knee angles via data fusion of implantable and wearable sensors 2013 ,		3
126	Design and test of a MEMS strain-sensing device for monitoring artificial knee implants. <i>Biomedical Microdevices</i> , 2013 , 15, 831-9	3.7	11
125	Development of a standard fall data format for signals from body-worn sensors : the FARSEEING consensus. <i>Zeitschrift Fur Gerontologie Und Geriatrie</i> , 2013 , 46, 720-6	2.7	19
124	Fall detection with body-worn sensors : a systematic review. <i>Zeitschrift Fur Gerontologie Und Geriatrie</i> , 2013 , 46, 706-19	2.7	105
123	Towards estimation of front-crawl energy expenditure using the wearable aquatic movement analysis system (WAMAS) 2013 ,		2
122	Instrumented Knee Prosthesis for Force and Kinematics Measurements. <i>IEEE Transactions on Automation Science and Engineering</i> , 2013 , 10, 615-624	4.9	20
121	A Hidden Markov Model of the breaststroke swimming temporal phases using wearable inertial measurement units 2013 ,		23
120	A system to measure the kinematics during the entire ski jump sequence using inertial sensors. <i>Journal of Biomechanics</i> , 2013 , 46, 56-62	2.9	49
119	Objective evaluation of cervical spine mobility after surgery during free-living activity. <i>Clinical Biomechanics</i> , 2013 , 28, 364-9	2.2	8
118	Distribution of arm velocity and frequency of arm usage during daily activity: objective outcome evaluation after shoulder surgery. <i>Gait and Posture</i> , 2013 , 38, 247-52	2.6	17
117	Quantitative estimation of foot-flat and stance phase of gait using foot-worn inertial sensors. <i>Gait and Posture</i> , 2013 , 37, 229-34	2.6	164
116	Gait and foot clearance parameters obtained using shoe-worn inertial sensors in a large-population sample of older adults. <i>Sensors</i> , 2013 , 14, 443-57	3.8	98
115	On-shoe wearable sensors for gait and turning assessment of patients with Parkinson's disease. <i>IEEE Transactions on Biomedical Engineering</i> , 2013 , 60, 155-8	5	178
114	Soft tissue artifact assessment during treadmill walking in subjects with total knee arthroplasty. <i>IEEE Transactions on Biomedical Engineering</i> , 2013 , 60, 3131-40	5	47

113	Accurate measurement of concurrent flexion-extension and internal-external rotations in smart knee prostheses. <i>IEEE Transactions on Biomedical Engineering</i> , 2013 , 60, 2504-10	5	7
112	Gaussian process framework for pervasive estimation of swimming velocity with body-worn IMU. <i>Electronics Letters</i> , 2013 , 49, 44-45	1.1	10
111	Automatic front-crawl temporal phase detection using adaptive filtering of inertial signals. <i>Journal of Sports Sciences</i> , 2013 , 31, 1251-60	3.6	44
110	A novel approach to reducing number of sensing units for wearable gait analysis systems. <i>IEEE Transactions on Biomedical Engineering</i> , 2013 , 60, 72-7	5	64
109	Unraveling dynamics of human physical activity patterns in chronic pain conditions. <i>Scientific Reports</i> , 2013 , 3, 2019	4.9	23
108	Physical activity recognition via minimal in-shoes force sensor configuration 2013 ,		2
107	An Analog Front-End and ADC Integrated Circuit for Implantable Force and Orientation Measurements in Joint Prosthesis. <i>Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering</i> , 2013 , 295-302	0.2	4
106	Lifestyle Evaluation Using Wearable Technologies: Opportunities for Stroke Patients. <i>Biosystems and Biorobotics</i> , 2013 , 941-945	0.2	2
105	Proposal for a multiphase fall model based on real-world fall recordings with body-fixed sensors. <i>Zeitschrift Fur Gerontologie Und Geriatrie</i> , 2012 , 45, 707-15	2.7	41
104	Fractal temporal organisation of motricity is altered in major depression. <i>Psychiatry Research</i> , 2012 , 200, 288-93	9.9	12
103	Automatic measurement of key ski jumping phases and temporal events with a wearable system. <i>Journal of Sports Sciences</i> , 2012 , 30, 53-61	3.6	40
102	Detection and classification of postural transitions in real-world conditions. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2012 , 20, 688-96	4.8	42
101	A comparison between joint coordinate system and attitude vector for multi-segment foot kinematics. <i>Journal of Biomechanics</i> , 2012 , 45, 2041-5	2.9	6
100	Accurate internal-external rotation measurement in total knee prostheses: A magnetic solution. <i>Journal of Biomechanics</i> , 2012 , 45, 2023-7	2.9	11
99	An effortless procedure to align the local frame of an inertial measurement unit to the local frame of another motion capture system. <i>Journal of Biomechanics</i> , 2012 , 45, 2297-300	2.9	29
98	Fiabilit' d' un score fonctionnel bas' sur l' analyse de deux mouvements fondamentaux de l' marche. <i>Kinesitherapie</i> , 2012 , 12, 24-25	0.1	
97	Multi-segment foot kinematics after total ankle replacement and ankle arthrodesis during relatively long-distance gait. <i>Gait and Posture</i> , 2012 , 36, 561-6	2.6	53
96	Evaluation of accelerometer-based fall detection algorithms on real-world falls. <i>PLoS ONE</i> , 2012 , 7, e37067	3.7	285

95	Heel and toe clearance estimation for gait analysis using wireless inertial sensors. <i>IEEE Transactions on Biomedical Engineering</i> , 2012 , 59, 3162-8	5	111
94	Measurement of multi-segment foot joint angles during gait using a wearable system. <i>Journal of Biomechanical Engineering</i> , 2012 , 134, 061006	2.1	45
93	Front-crawl instantaneous velocity estimation using a wearable inertial measurement unit. <i>Sensors</i> , 2012 , 12, 12927-39	3.8	55
92	Gait assessment in children with duchenne muscular dystrophy during long-distance walking. <i>Journal of Child Neurology</i> , 2012 , 27, 30-8	2.5	26
91	Physical activity of moderately impaired elderly stroke patients during rehabilitation. <i>Physiological Measurement</i> , 2012 , 33, 1923-30	2.9	5
90	A randomised controlled clinical trial and gait analysis of fixed- and mobile-bearing total knee replacements with a five-year follow-up. <i>Journal of Bone and Joint Surgery: British Volume</i> , 2012 , 94, 648-55		36
89	Barcoding human physical activity to assess chronic pain conditions. <i>PLoS ONE</i> , 2012 , 7, e32239	3.7	45
88	Segmentation of foot and ankle complex based on kinematic criteria. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2011 , 14, 773-81	2.1	16
87	Outcome evaluation of ankle osteoarthritis treatments: plantar pressure analysis during relatively long-distance walking. <i>Clinical Biomechanics</i> , 2011 , 26, 397-404	2.2	19
86	Ambulatory measurement of ankle kinetics for clinical applications. <i>Journal of Biomechanics</i> , 2011 , 44, 2712-8	2.9	26
85	Objective evaluation of shoulder function using body-fixed sensors: a new way to detect early treatment failures?. <i>Journal of Shoulder and Elbow Surgery</i> , 2011 , 20, 1074-81	4.3	26
84	Évaluation fonctionnelle cinématique après chirurgie de l'épaule. <i>Kinesithérapie</i> , 2011 , 11, 97-99	0.1	
83	Assessment of physical activity in older people with and without cognitive impairment. <i>Journal of Aging and Physical Activity</i> , 2011 , 19, 347-72	1.6	26
82	Multi-parametric evaluation of sit-to-stand and stand-to-sit transitions in elderly people. <i>Medical Engineering and Physics</i> , 2011 , 33, 1086-93	2.4	71
81	Continuous monitoring and quantification of multiple parameters of daily physical activity in ambulatory Duchenne muscular dystrophy patients. <i>European Journal of Paediatric Neurology</i> , 2011 , 15, 40-7	3.8	35
80	Instrumented prosthesis for knee implants monitoring 2011 ,		12
79	Conjugate momentum estimate using non-linear dynamic model of the sit-to-stand correlates well with accelerometric surface data. <i>Journal of Biomechanics</i> , 2011 , 44, 1073-7	2.9	5
78	Foot worn inertial sensors for gait assessment and rehabilitation based on motorized shoes. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2011 , 2011, 5820-3	0.9	8

77	The instrumented timed up and go test: potential outcome measure for disease modifying therapies in Parkinson's disease. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2010 , 81, 171-6	5.5	226
76	Can we predict outcome of surgical reconstruction of Charcot neuroarthropathy by dynamic plantar pressure assessment?--A proof of concept study. <i>Gait and Posture</i> , 2010 , 31, 87-92	2.6	23
75	An exercise intervention to improve diabetic patients' gait in a real-life environment. <i>Gait and Posture</i> , 2010 , 32, 185-90	2.6	41
74	Ambulatory assessment of 3D ground reaction force using plantar pressure distribution. <i>Gait and Posture</i> , 2010 , 32, 311-6	2.6	53
73	What is the relationship between fear of falling and gait in well-functioning older persons aged 65 to 70 years?. <i>Archives of Physical Medicine and Rehabilitation</i> , 2010 , 91, 879-84	2.8	103
72	Vulnerability in high-functioning persons aged 65 to 70 years: the importance of the fear factor. <i>Aging Clinical and Experimental Research</i> , 2010 , 22, 212-8	4.8	20
71	Proximal tibia volumetric bone mineral density is correlated to the magnitude of local acceleration in male long-distance runners. <i>Journal of Applied Physiology</i> , 2010 , 108, 852-7	3.7	7
70	Day-to-day variability of physical activity of older adults living in the community. <i>Journal of Aging and Physical Activity</i> , 2010 , 18, 75-86	1.6	36
69	The gait and balance of patients with diabetes can be improved: a randomised controlled trial. <i>Diabetologia</i> , 2010 , 53, 458-66	10.3	194
68	iTUG, a sensitive and reliable measure of mobility. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2010 , 18, 303-10	4.8	341
67	Evaluation of a mixed approach combining stationary and wearable systems to monitor gait over long distance. <i>Journal of Biomechanics</i> , 2010 , 43, 2196-202	2.9	28
66	3D gait assessment in young and elderly subjects using foot-worn inertial sensors. <i>Journal of Biomechanics</i> , 2010 , 43, 2999-3006	2.9	233
65	Improving Pedestrian Dynamics Modeling Using Fuzzy Logic 2010 , 503-508		3
64	Detection of the movement of the humerus during daily activity. <i>Medical and Biological Engineering and Computing</i> , 2009 , 47, 467-74	3.1	15
63	Clinical factors associated with gait alterations in diabetic patients. <i>Diabetic Medicine</i> , 2009 , 26, 1003-9	3.5	31
62	Functional calibration procedure for 3D knee joint angle description using inertial sensors. <i>Journal of Biomechanics</i> , 2009 , 42, 2330-5	2.9	207
61	Does walking strategy in older people change as a function of walking distance?. <i>Gait and Posture</i> , 2009 , 29, 261-6	2.6	116
60	Gait alterations of diabetic patients while walking on different surfaces. <i>Gait and Posture</i> , 2009 , 29, 488-93		88

59	Analyzing 180 degrees turns using an inertial system reveals early signs of progression of Parkinson's disease. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference, 2009, 224-7</i>	0.9	55
58	Altérations de la marche et risque de chute chez les patients diabétiques : rôle de la neuropathie périphérique. <i>Kinesithérapie, 2009, 9, 83-84</i>	0.1	
57	Nonlinear Analysis of Physiological Time Series 2009 , 307-333		9
56	Falls self-efficacy and gait performance after gait and balance training in older people. <i>Journal of the American Geriatrics Society, 2008, 56, 1154-6</i>	5.6	9
55	Criteria for evaluation of measurement properties of clinical balance measures for use in fall prevention studies. <i>Journal of Evaluation in Clinical Practice, 2008, 14, 236-40</i>	2.5	30
54	Distance to achieve steady state walking speed in frail elderly persons. <i>Gait and Posture, 2008, 27, 91-6</i>	2.6	139
53	Stride-to-stride variability while enumerating animal names among healthy young adults: result of stride velocity or effect of attention-demanding task?. <i>Gait and Posture, 2008, 27, 138-43</i>	2.6	57
52	Estimating dominant upper-limb segments during daily activity. <i>Gait and Posture, 2008, 27, 368-75</i>	2.6	25
51	Arm position during daily activity. <i>Gait and Posture, 2008, 28, 581-7</i>	2.6	52
50	Reliability of diabetic patients' gait parameters in a challenging environment. <i>Gait and Posture, 2008, 28, 680-6</i>	2.6	18
49	A new approach for quantitative analysis of inter-joint coordination during gait. <i>IEEE Transactions on Biomedical Engineering, 2008, 55, 755-64</i>	5	29
48	Nonlinear analysis of human physical activity patterns in health and disease. <i>Physical Review E, 2008, 77, 021913</i>	2.4	25
47	Bi-planar 2D-to-3D registration in Fourier domain for stereoscopic x-ray motion tracking 2008 ,		4
46	Ambulatory measurement of 3D knee joint angle. <i>Journal of Biomechanics, 2008, 41, 1029-35</i>	2.9	203
45	3D EVALUATION OF THE KNEE JOINT FUNCTIONING USING AN AMBULATORY SYSTEM: APPLICATION TO ACL-DEFICIENT KNEES. <i>Journal of Biomechanics, 2007, 40, S251</i>	2.9	
44	Quantification of tremor and bradykinesia in Parkinson's disease using a novel ambulatory monitoring system. <i>IEEE Transactions on Biomedical Engineering, 2007, 54, 313-22</i>	5	262
43	Ambulatory monitoring of physical activities in patients with Parkinson's disease. <i>IEEE Transactions on Biomedical Engineering, 2007, 54, 2296-9</i>	5	148
42	Mobility assessment in older people: new possibilities and challenges. <i>European Journal of Ageing, 2007, 4, 3-12</i>	3.6	103

41	An orientation measuring system suitable for routine uses made by the fusion of a 3D gyroscope and a magnetic tracker. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2007 , 2007, 3938-41		2
40	Kinematics and dynamic complexity of postural transitions in frail elderly subjects. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2007 , 2007, 6118-21		16
39	Outcome evaluation in shoulder surgery using 3D kinematics sensors. <i>Gait and Posture</i> , 2007 , 25, 523-32	2.6	48
38	Quantification of everyday motor function in a geriatric population. <i>Journal of Rehabilitation Research and Development</i> , 2007 , 44, 417-28		54
37	Objective Measurement of Physical Activity in Patients with Chronic Lower Limb Pain Treated with Spinal Cord Stimulation 2007 , 30-32		
36	Relationships between dual-task related changes in stride velocity and stride time variability in healthy older adults. <i>Human Movement Science</i> , 2006 , 25, 372-82	2.4	150
35	Estimation and visualization of sagittal kinematics of lower limbs orientation using body-fixed sensors. <i>IEEE Transactions on Biomedical Engineering</i> , 2006 , 53, 1385-93	5	131
34	Gait analysis and WOMAC are complementary in assessing functional outcome in total hip replacement. <i>Clinical Rehabilitation</i> , 2006 , 20, 413-20	3.3	64
33	Quaternion-based fusion of gyroscopes and accelerometers to improve 3D angle measurement. <i>Electronics Letters</i> , 2006 , 42, 612	1.1	102
32	A new ambulatory system for comparative evaluation of the three-dimensional knee kinematics, applied to anterior cruciate ligament injuries. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2006 , 14, 592-604	5.5	50
31	Monitoring Human Movement with Body-Fixed Sensors and its Clinical Applications. <i>Computational Intelligence and Its Applications Series</i> , 2006 , 101-138		6
30	Stair climbing detection during daily physical activity using a miniature gyroscope. <i>Gait and Posture</i> , 2005 , 22, 287-94	2.6	85
29	Improved physical activity in patients treated for chronic pain by spinal cord stimulation. <i>Neuromodulation</i> , 2005 , 8, 40-8	3.1	22
28	A new approach to accurate measurement of uniaxial joint angles based on a combination of accelerometers and gyroscopes. <i>IEEE Transactions on Biomedical Engineering</i> , 2005 , 52, 1478-84	5	192
27	Dual-task-related gait changes in the elderly: does the type of cognitive task matter?. <i>Journal of Motor Behavior</i> , 2005 , 37, 259-64	1.4	108
26	Gait assessment in Parkinson's disease: toward an ambulatory system for long-term monitoring. <i>IEEE Transactions on Biomedical Engineering</i> , 2004 , 51, 1434-43	5	431
25	Capturing human motion using body-fixed sensors: outdoor measurement and clinical applications. <i>Computer Animation and Virtual Worlds</i> , 2004 , 15, 79-94	0.9	184
24	Ambulatory system for the quantitative and qualitative analysis of gait and posture in chronic pain patients treated with spinal cord stimulation. <i>Gait and Posture</i> , 2004 , 20, 113-25	2.6	74

23	Evaluation of an ambulatory system for gait analysis in hip osteoarthritis and after total hip replacement. <i>Gait and Posture</i> , 2004 , 20, 102-7	2.6	131
22	Elevated heels and adaptation to new shoes in frail elderly women. <i>Zeitschrift Fur Gerontologie Und Geriatrie</i> , 2003 , 36, 29-34	2.7	21
21	Ambulatory system for human motion analysis using a kinematic sensor: monitoring of daily physical activity in the elderly. <i>IEEE Transactions on Biomedical Engineering</i> , 2003 , 50, 711-23	5	552
20	Age-related decline of gait control under a dual-task condition. <i>Journal of the American Geriatrics Society</i> , 2003 , 51, 1187-8	5.6	100
19	Measurement of stand-sit and sit-stand transitions using a miniature gyroscope and its application in fall risk evaluation in the elderly. <i>IEEE Transactions on Biomedical Engineering</i> , 2002 , 49, 843-51	5	294
18	Spatio-temporal parameters of gait measured by an ambulatory system using miniature gyroscopes. <i>Journal of Biomechanics</i> , 2002 , 35, 689-99	2.9	585
17	Source separation in strong noisy mixtures: A study of wavelet de-noising pre-processing 2002 ,		2
16	Can accelerometry accurately predict the energy cost of uphill/downhill walking?. <i>Ergonomics</i> , 2001 , 44, 48-62	2.9	62
15	Physical activity monitoring based on accelerometry: validation and comparison with video observation. <i>Medical and Biological Engineering and Computing</i> , 1999 , 37, 304-8	3.1	227
14	Temporal feature estimation during walking using miniature accelerometers: an analysis of gait improvement after hip arthroplasty. <i>Medical and Biological Engineering and Computing</i> , 1999 , 37, 686-91	3.1	132
13	The prediction of speed and incline in outdoor running in humans using accelerometry. <i>Medicine and Science in Sports and Exercise</i> , 1999 , 31, 1053-9	1.2	66
12	Motion Analysis in Clinical Practice Using Ambulatory Accelerometry. <i>Lecture Notes in Computer Science</i> , 1998 , 1-11	0.9	10
11	Incline, speed, and distance assessment during unconstrained walking. <i>Medicine and Science in Sports and Exercise</i> , 1995 , 27, 226-34	1.2	46
10	. <i>IEEE Transactions on Instrumentation and Measurement</i> , 1995 , 44, 743-746	5.2	61
9	Incline, speed, and distance assessment during unconstrained walking. <i>Medicine and Science in Sports and Exercise</i> , 1995 , 27, 226-34	1.2	7
8	Level, downhill and uphill walking identification using neural networks. <i>Electronics Letters</i> , 1993 , 29, 1563-1		20
7	Real-time measurement of the contribution of the muscular activity to the metabolic rate in freely moving rats. <i>Medical and Biological Engineering and Computing</i> , 1993 , 31, 399-404	3.1	2
6	Filtering by adaptive sampling (FAS). <i>Medical and Biological Engineering and Computing</i> , 1988 , 26, 658-62	3.1	23

5	An ambulatory system to quantify bradykinesia and tremor in Parkinson's disease	8
4	An ambulatory system for physical activity monitoring in elderly	11
3	Falling risk evaluation in elderly using miniature gyroscope	4
2		3
1	Can accelerometry accurately predict the energy cost of uphill/downhill walking?	16