# Claudine Jc Lamoth

List of Publications by Year
in descending order

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|---|---|---|---|
| 91<br>papers | 5,524<br>citations | 81900<br>39<br>h-index | 82547<br>72<br>g-index |
| 109<br>all docs | 109<br>docs citations | 109<br>times ranked | 5695<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | PCA in studying coordination and variability: a tutorial. Clinical Biomechanics, 2004, 19, 415-428. | 1.2 | 535 |
| 2 | Effects of chronic low back pain on trunk coordination and back muscle activity during walking: changes in motor control. European Spine Journal, 2006, 15, 23-40. | 2.2 | 310 |
| 3 | Characteristics of instructed and uninstructed interpersonal coordination while walking side-by-side. Neuroscience Letters, 2008, 432, 88-93. | 2.1 | 216 |
| 4 | Gait Coordination After Stroke: Benefits of Acoustically Paced Treadmill Walking. Physical Therapy, 2007, 87, 1009-1022. | 2.4 | 214 |
| 5 | Gait and cognition: The relationship between gait stability and variability with executive function in persons with and without dementia. Gait and Posture, 2012, 35, 126-130. | 1.4 | 208 |
| 6 | Gait stability and variability measures show effects of impaired cognition and dual tasking in frail people. Journal of NeuroEngineering and Rehabilitation, 2011, 8, 2. | 4.6 | 207 |
| 7 | Exergaming for balance training of elderly: state of the art and future developments. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 101. | 4.6 | 195 |
| 8 | Pelvis-Thorax Coordination in the Transverse Plane During Walking in Persons With Nonspecific Low Back Pain. Spine, 2002, 27, E92-E99. | 2.0 | 181 |
| 9 | Long-term unsupervised mobility assessment in movement disorders. Lancet Neurology, The, 2020, 19, 462-470. | 10.2 | 181 |
| 10 | Coordination of leg swing, thorax rotations, and pelvis rotations during gait: The organisation of total body angular momentum. Gait and Posture, 2008, 27, 455-462. | 1.4 | 158 |
| 11 | Pelvisâ€“thorax coordination in the transverse plane during gait. Gait and Posture, 2002, 16, 101-114. | 1.4 | 152 |
| 12 | Online gait event detection using a large force platform embedded in a treadmill. Journal of Biomechanics, 2008, 41, 2628-2632. | 2.1 | 147 |
| 13 | How do persons with chronic low back pain speed up and slow down?. Gait and Posture, 2006, 23, 230-239. | 1.4 | 130 |
| 14 | Variability and stability analysis of walking of transfemoral amputees. Medical Engineering and Physics, 2010, 32, 1009-1014. | 1.7 | 124 |
| 15 | Athletic skill level is reflected in body sway: A test case for accelometry in combination with stochastic dynamics. Gait and Posture, 2009, 29, 546-551. | 1.4 | 121 |
| 16 | Walking ability to predict future cognitive decline in old adults: A scoping review. Ageing Research Reviews, 2016, 27, 1-14. | 10.9 | 121 |
| 17 | Effectiveness and feasibility of early physical rehabilitation programs for geriatric hospitalized patients: a systematic review. BMC Geriatrics, 2013, 13, 107. | 2.7 | 112 |
| 18 | Effects of experimentally induced pain and fear of pain on trunk coordination and back muscle activity during walking. Clinical Biomechanics, 2004, 19, 551-563. | 1.2 | 100 |

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|---|---|---|---|
| 19 | Effects of attention on the control of locomotion in individuals with chronic low back pain. Journal of NeuroEngineering and Rehabilitation, 2008, 5, 13. | 4.6 | 98 |
| 20 | Rhythm Perturbations in Acoustically Paced Treadmill Walking After Stroke. Neurorehabilitation and Neural Repair, 2009, 23, 668-678. | 2.9 | 95 |
| 21 | Suitability of Kinect for measuring whole body movement patterns during exergaming. Journal of Biomechanics, 2014, 47, 2925-2932. | 2.1 | 87 |
| 22 | Gait coordination in pregnancy: transverse pelvic and thoracic rotations and their relative phase. Clinical Biomechanics, 2004, 19, 480-488. | 1.2 | 82 |
| 23 | The Effects of Fall-Risk-Increasing Drugs on Postural Control: A Literature Review. Drugs and Aging, 2013, 30, 901-920. | 2.7 | 71 |
| 24 | Gait in Pregnancy-related Pelvic girdle Pain: amplitudes, timing, and coordination of horizontal trunk rotations. European Spine Journal, 2008, 17, 1160-1169. | 2.2 | 68 |
| 25 | Energy cost of balance control during walking decreases with external stabilizer stiffness independent of walking speed. Journal of Biomechanics, 2013, 46, 2109-2114. | 2.1 | 68 |
| 26 | Sensor technologies aiming at fall prevention in institutionalized old adults: A synthesis of current knowledge. International Journal of Medical Informatics, 2013, 82, 743-752. | 3.3 | 63 |
| 27 | A flexed posture in elderly patients is associated with impairments in postural control during walking. Gait and Posture, 2014, 39, 767-772. | 1.4 | 62 |
| 28 | Sports activities are reflected in the local stability and regularity of body sway: Older ice-skaters have better postural control than inactive elderly. Gait and Posture, 2012, 35, 489-493. | 1.4 | 61 |
| 29 | Steady and transient coordination structures of walking and running. Human Movement Science, 2009, 28, 371-386. | 1.4 | 60 |
| 30 | Associations between vertebral fractures, increased thoracic kyphosis, a flexed posture and falls in older adults: a prospective cohort study. BMC Geriatrics, 2015, 15, 34. | 2.7 | 58 |
| 31 | Validity and Reliability of Gait and Postural Control Analysis Using the Tri-axial Accelerometer of the iPod Touch. Annals of Biomedical Engineering, 2015, 43, 1935-1946. | 2.5 | 55 |
| 32 | Multivariate Analyses and Classification of Inertial Sensor Data to Identify Aging Effects on the Timed-Up-and-Go Test. PLoS ONE, 2016, 11, e0155984. | 2.5 | 53 |
| 33 | Effect of Balance Support on the Energy Cost of Walking After Stroke. Archives of Physical Medicine and Rehabilitation, 2013, 94, 2255-2261. | 0.9 | 51 |
| 34 | Initial Skill Acquisition of Handrim Wheelchair Propulsion: A New Perspective. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 104-113. | 4.9 | 51 |
| 35 | Exergames for unsupervised balance training at home: A pilot study in healthy older adults. Gait and Posture, 2016, 44, 161-167. | 1.4 | 51 |
| 36 | Adaptive control of dynamic balance in human gait on a split-belt treadmill. Journal of Experimental Biology, 2018, 221, . | 1.7 | 50 |

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|---|---|---|---|
| 37 | Variability in bimanual wheelchair propulsion: consistency of two instrumented wheels during handrim wheelchair propulsion on a motor driven treadmill. Journal of NeuroEngineering and Rehabilitation, 2013, 10, 9. | 4.6 | 45 |
| 38 | Gait in patients with pregnancy-related pain in the pelvis: an emphasis on the coordination of transverse pelvic and thoracic rotations. Clinical Biomechanics, 2002, 17, 678-686. | 1.2 | 43 |
| 39 | Energy expenditure of stroke patients during postural control tasks. Gait and Posture, 2010, 32, 321-326. | 1.4 | 41 |
| 40 | Effects of handrail hold and light touch on energetics, step parameters, and neuromuscular activity during walking after stroke. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 70. | 4.6 | 41 |
| 41 | Gait dynamics to optimize fall risk assessment in geriatric patients admitted to an outpatient diagnostic clinic. PLoS ONE, 2017, 12, e0178615. | 2.5 | 40 |
| 42 | Factors related to the high fall rate in long-term care residents with dementia. International Psychogeriatrics, 2015, 27, 803-814. | 1.0 | 37 |
| 43 | Inter-Individual Differences in the Initial 80 Minutes of Motor Learning of Handrim Wheelchair Propulsion. PLoS ONE, 2014, 9, e89729. | 2.5 | 36 |
| 44 | Multiple gait parameters derived from iPod accelerometry predict age-related gait changes. Gait and Posture, 2016, 46, 112-117. | 1.4 | 31 |
| 45 | Can external lateral stabilization reduce the energy cost of walking in persons with a lower limb amputation?. Gait and Posture, 2014, 40, 616-621. | 1.4 | 29 |
| 46 | Early motor learning changes in upper-limb dynamics and shoulder complex loading during handrim wheelchair propulsion. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 26. | 4.6 | 29 |
| 47 | Long-Term Exposure to Anticholinergic and Sedative Medications and Cognitive and Physical Function in Later Life. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2020, 75, 357-365. | 3.6 | 29 |
| 48 | Effects of Aging and Task Prioritization on Split-Belt Gait Adaptation. Frontiers in Aging Neuroscience, 2019, 11, 10. | 3.4 | 29 |
| 49 | The detection of age groups by dynamic gait outcomes using machine learning approaches. Scientific Reports, 2020, 10, 4426. | 3.3 | 29 |
| 50 | Bilateral temporal control determines mediolateral margins of stability in symmetric and asymmetric human walking. Scientific Reports, 2019, 9, 12494. | 3.3 | 28 |
| 51 | Gait Analysis with Wearables Can Accurately Classify Fallers from Non-Fallers: A Step toward Better Management of Neurological Disorders. Sensors, 2020, 20, 6992. | 3.8 | 24 |
| 52 | Effects of experimentally induced fatigue on healthy older adultsâ€™ gait: A systematic review. PLoS ONE, 2019, 14, e0226939. | 2.5 | 23 |
| 53 | The Association of Medication-Use and Frailty-Related Factors with Gait Performance in Older Patients. PLoS ONE, 2016, 11, e0149888. | 2.5 | 22 |
| 54 | Handrail Holding During Treadmill Walking Reduces Locomotor Learning in Able-Bodied Persons. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 1753-1759. | 4.9 | 22 |

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|---|---|---|---|
| 55 | Gait characteristics and their discriminative power in geriatric patients with and without cognitive impairment. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 84. | 4.6 | 21 |
| 56 | Postural threat during walking: effects on energy cost and accompanying gait changes. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 71. | 4.6 | 20 |
| 57 | Stability and variability of acoustically specified coordination patterns while walking side-by-side on a treadmill: Does the seagull effect hold?. Neuroscience Letters, 2010, 474, 79-83. | 2.1 | 19 |
| 58 | Standing task difficulty related increase in agonist-agonist and agonist-antagonist common inputs are driven by corticospinal and subcortical inputs respectively. Scientific Reports, 2019, 9, 2439. | 3.3 | 19 |
| 59 | Classification of Neurological Patients to Identify Fallers Based on Spatial-Temporal Gait Characteristics Measured by a Wearable Device. Sensors, 2020, 20, 4098. | 3.8 | 19 |
| 60 | Effective Feedback Procedures in Games for Health. Games for Health Journal, 2013, 2, 320-326. | 2.0 | 17 |
| 61 | Testing postural control among various osteoporotic patient groups: A literature review. Geriatrics and Gerontology International, 2012, 12, 573-585. | 1.5 | 16 |
| 62 | Quantifying Postural Control during Exergaming Using Multivariate Whole-Body Movement Data: A Self-Organizing Maps Approach. PLoS ONE, 2015, 10, e0134350. | 2.5 | 16 |
| 63 | Age-specific modulation of intermuscular beta coherence during gait before and after experimentally induced fatigue. Scientific Reports, 2020, 10, 15854. | 3.3 | 14 |
| 64 | Differences between Young and Older Adults in the Control of Weight Shifting within the Surface of Support. PLoS ONE, 2014, 9, e98494. | 2.5 | 13 |
| 65 | Adaptive Control of Dynamic Balance across the Adult Lifespan. Medicine and Science in Sports and Exercise, 2020, 52, 2270-2277. | 0.4 | 13 |
| 66 | Effects of Visual Feedback-Induced Variability on Motor Learning of Handrim Wheelchair Propulsion. PLoS ONE, 2015, 10, e0127311. | 2.5 | 13 |
| 67 | Minimal effects of age and prolonged physical and mental exercise on healthy adultsâ€™ gait. Gait and Posture, 2019, 74, 205-211. | 1.4 | 12 |
| 68 | The relationship between gait dynamics and future cognitive decline: a prospective pilot study in geriatric patients. International Psychogeriatrics, 2018, 30, 1301-1309. | 1.0 | 11 |
| 69 | Coordination of Axial Trunk Rotations During Gait in Low Back Pain. A Narrative Review. Journal of Human Kinetics, 2021, 76, 35-50. | 1.5 | 10 |
| 70 | In Standing, Corticospinal Excitability Is Proportional to COP Velocity Whereas M1 Excitability Is Participant-Specific. Frontiers in Human Neuroscience, 2018, 12, 303. | 2.0 | 9 |
| 71 | Task specificity and neural adaptations after balance learning in young adults. Human Movement Science, 2021, 78, 102833. | 1.4 | 9 |
| 72 | Assessing dynamic postural control during exergaming in older adults: A probabilistic approach. Gait and Posture, 2018, 60, 235-240. | 1.4 | 8 |

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|---|---|---|---|
| 73 | Do gait and muscle activation patterns change at middle-age during split-belt adaptation?. Journal of Biomechanics, 2020, 99, 109510. | 2.1 | 8 |
| 74 | Implicit and Explicit Learning of a Sequential Postural Weight-Shifting Task in Young and Older Adults. Frontiers in Psychology, 2016, 7, 733. | 2.1 | 7 |
| 75 | Anticipatory control of human gait following simulated slip exposure. Scientific Reports, 2020, 10, 9599. | 3.3 | 7 |
| 76 | Outcome-dependent effects of walking speed and age on quantitative and qualitative gait measures. Gait and Posture, 2022, 93, 39-46. | 1.4 | 7 |
| 77 | Shotgun approaches to gait analysis: insights & limitations. Journal of NeuroEngineering and Rehabilitation, 2014, 11, 120. | 4.6 | 6 |
| 78 | Using an ice-skating exergame to foster intercultural interaction between refugees and Dutch children. Cogent Education, 2018, 5, 1538587. | 1.5 | 6 |
| 79 | Singular Spectrum Analysis as a data-driven approach to the analysis of motor adaptation time series. Biomedical Signal Processing and Control, 2022, 71, 103068. | 5.7 | 6 |
| 80 | Association between central sensitization and gait in chronic low back pain: Insights from a machine learning approach. Computers in Biology and Medicine, 2022, 144, 105329. | 7.0 | 6 |
| 81 | Visual Data Exploration for Balance Quantification in Real-Time During Exergaming. PLoS ONE, 2017, 12, e0170906. | 2.5 | 5 |
| 82 | Assessing Dynamic Balance Performance During Exergaming Based on Speed and Curvature of Body Movements. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 171-180. | 4.9 | 5 |
| 83 | Synergistic Structure in the Speed Dependent Modulation of Muscle Activity in Human Walking. PLoS ONE, 2016, 11, e0152784. | 2.5 | 5 |
| 84 | Serie onderzoek en psychotherapie: Catastrofale misinterpretaties. Tijdschrift Voor Psychotherapie, 2002, 28, 73-82. | 0.2 | 2 |
| 85 | Curvature and speed for balance quantification during exergaming. , 2016, , . | | 2 |
| 86 | Authorsâ€™ Reply to Toda: â€œThe Effects of Fall-Risk-Increasing Drugs on Postural Control: A Literature Reviewâ€• Drugs and Aging, 2013, 30, 1041-1042. | 2.7 | 1 |
| 87 | Faster walking under muscle fatigability: a strategy to improve stability or a warm-up effect?. Brazilian Journal of Motor Behavior, 2021, 15, 149-152. | 0.5 | 1 |
| 88 | Auditory-paced walking following stroke. Gait and Posture, 2006, 24, S95-S97. | 1.4 | 0 |
| 89 | Exergaming and balance training. Gait and Posture, 2009, 30, S144-S145. | 1.4 | 0 |
| 90 | Skill acquisition of manual wheelchair propulsion: initial motor learning. BIO Web of Conferences, 2011, 1, 00093. | 0.2 | 0 |

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|---|---|---|---|
| 91 | P-138: Gait and patient characteristics that discriminate fallers from non-fallers in a geriatric population. European Geriatric Medicine, 2015, 6, S68-S69. | 2.8 | 0 |