

Ilse Jonkers

List of Publications by Year in descending order

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Version: 2024-02-01

205
papers

6,383
citations

76031

42
h-index

124990

64
g-index

229
all docs

229
docs citations

229
times ranked

5541
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Quantitative Gait Analysis in Parkinson's Disease: Comparison With a Healthy Control Group. Archives of Physical Medicine and Rehabilitation, 2005, 86, 1007-1013. | 0.5 | 270 |
| 2 | Capacity to increase walking speed is limited by impaired hip and ankle power generation in lower functioning persons post-stroke. Gait and Posture, 2009, 29, 129-137. | 0.6 | 180 |
| 3 | Rapid predictive simulations with complex musculoskeletal models suggest that diverse healthy and pathological human gaits can emerge from similar control strategies. Journal of the Royal Society Interface, 2019, 16, 20190402. | 1.5 | 158 |
| 4 | A randomized study of combined botulinum toxin type A and casting in the ambulant child with cerebral palsy using objective outcome measures. European Journal of Neurology, 2001, 8, 75-87. | 1.7 | 130 |
| 5 | Evaluation of the effect of backpack load and position during standing and walking using biomechanical, physiological and subjective measures. Ergonomics, 2007, 50, 728-742. | 1.1 | 130 |
| 6 | Kalman smoothing improves the estimation of joint kinematics and kinetics in marker-based human gait analysis. Journal of Biomechanics, 2008, 41, 3390-3398. | 0.9 | 115 |
| 7 | Personalized MR-based musculoskeletal models compared to rescaled generic models in the presence of increased femoral anteversion: Effect on hip moment arm lengths. Gait and Posture, 2008, 28, 358-365. | 0.6 | 113 |
| 8 | Subject-specific hip geometry affects predicted hip joint contact forces during gait. Journal of Biomechanics, 2008, 41, 1243-1252. | 0.9 | 101 |
| 9 | Calculated moment-arm and muscle-tendon lengths during gait differ substantially using MR based versus rescaled generic lower-limb musculoskeletal models. Gait and Posture, 2008, 28, 640-648. | 0.6 | 93 |
| 10 | Sensitivity of dynamic simulations of gait and dynamometer experiments to hill muscle model parameters of knee flexors and extensors. Journal of Biomechanics, 2010, 43, 1876-1883. | 0.9 | 93 |
| 11 | Subject-specific hip geometry and hip joint centre location affects calculated contact forces at the hip during gait. Journal of Biomechanics, 2009, 42, 1246-1251. | 0.9 | 91 |
| 12 | Measuring only hop distance during single leg hop testing is insufficient to detect deficits in knee function after ACL reconstruction: a systematic review and meta-analysis. British Journal of Sports Medicine, 2020, 54, 139-153. | 3.1 | 88 |
| 13 | Relation between subject-specific hip joint loading, stress distribution in the proximal femur and bone mineral density changes after total hip replacement. Journal of Biomechanics, 2008, 41, 3405-3413. | 0.9 | 81 |
| 14 | In vivo evaluation of a vibration analysis technique for the per-operative monitoring of the fixation of hip prostheses. Journal of Orthopaedic Surgery and Research, 2009, 4, 10. | 0.9 | 78 |
| 15 | The Contribution of Step Characteristics to Sprint Running Performance in High-Level Male and Female Athletes. Journal of Strength and Conditioning Research, 2013, 27, 116-124. | 1.0 | 78 |
| 16 | The complementary role of the plantarflexors, hamstrings and gluteus maximus in the control of stance limb stability during gait. Gait and Posture, 2003, 17, 264-272. | 0.6 | 76 |
| 17 | Loading of Hip Measured by Hip Contact Forces at Different Speeds of Walking and Running. Journal of Bone and Mineral Research, 2015, 30, 1431-1440. | 3.1 | 76 |
| 18 | The flexion synergy, mother of all synergies and father of new models of gait. Frontiers in Computational Neuroscience, 2013, 7, 14. | 1.2 | 73 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Knee Joint Loading in Healthy Adults During Functional Exercises: Implications for Rehabilitation Guidelines. <i>Journal of Orthopaedic and Sports Physical Therapy</i> , 2018, 48, 162-173. | 1.7 | 71 |
| 20 | Influence of weak hip abductor muscles on joint contact forces during normal walking: probabilistic modeling analysis. <i>Journal of Biomechanics</i> , 2013, 46, 2186-2193. | 0.9 | 68 |
| 21 | From block clearance to sprint running: Characteristics underlying an effective transition. <i>Journal of Sports Sciences</i> , 2013, 31, 137-149. | 1.0 | 68 |
| 22 | A musculoskeletal model customized for squatting task. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2019, 22, 21-24. | 0.9 | 68 |
| 23 | Characterisation of walking loads by 3D inertial motion tracking. <i>Journal of Sound and Vibration</i> , 2014, 333, 5212-5226. | 2.1 | 65 |
| 24 | Task constraints and minimization of muscle effort result in a small number of muscle synergies during gait. <i>Frontiers in Computational Neuroscience</i> , 2014, 8, 115. | 1.2 | 64 |
| 25 | Gait alterations to effectively reduce hip contact forces. <i>Journal of Orthopaedic Research</i> , 2015, 33, 1094-1102. | 1.2 | 63 |
| 26 | Level of subject-specific detail in musculoskeletal models affects hip moment arm length calculation during gait in pediatric subjects with increased femoral anteversion. <i>Journal of Biomechanics</i> , 2011, 44, 1346-1353. | 0.9 | 62 |
| 27 | A physiology based inverse dynamic analysis of human gait: potential and perspectives. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2009, 12, 563-574. | 0.9 | 61 |
| 28 | Knee contact forces are not altered in early knee osteoarthritis. <i>Gait and Posture</i> , 2016, 45, 115-120. | 0.6 | 61 |
| 29 | Calculating gait kinematics using MR-based kinematic models. <i>Gait and Posture</i> , 2011, 33, 158-164. | 0.6 | 60 |
| 30 | Atlas-based non-rigid image registration to automatically define line-of-action muscle models: A validation study. <i>Journal of Biomechanics</i> , 2009, 42, 565-572. | 0.9 | 58 |
| 31 | Gait characteristics and lower limb muscle strength in women with early and established knee osteoarthritis. <i>Clinical Biomechanics</i> , 2013, 28, 40-47. | 0.5 | 58 |
| 32 | Botulinum toxin type A treatment of cerebral palsy: an integrated approach. <i>European Journal of Neurology</i> , 1999, 6, s51. | 1.7 | 57 |
| 33 | Single event multilevel botulinum toxin type A treatment and surgery: similarities and differences. <i>European Journal of Neurology</i> , 2001, 8, 88-97. | 1.7 | 56 |
| 34 | A spasticity model based on feedback from muscle force explains muscle activity during passive stretches and gait in children with cerebral palsy. <i>PLoS ONE</i> , 2018, 13, e0208811. | 1.1 | 56 |
| 35 | EMG-Driven Optimal Estimation of Subject-SPECIFIC Hill Model Muscle-Tendon Parameters of the Knee Joint Actuators. <i>IEEE Transactions on Biomedical Engineering</i> , 2017, 64, 2253-2262. | 2.5 | 55 |
| 36 | Subject-Exoskeleton Contact Model Calibration Leads to Accurate Interaction Force Predictions. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 1597-1605. | 2.7 | 55 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Single leg vertical jump performance identifies knee function deficits at return to sport after ACL reconstruction in male athletes. <i>British Journal of Sports Medicine</i> , 2022, 56, 490-498. | 3.1 | 55 |
| 38 | Aberrant pelvis and hip kinematics impair hip loading before and after total hip replacement. <i>Gait and Posture</i> , 2009, 30, 296-302. | 0.6 | 52 |
| 39 | Single leg hop for distance symmetry masks lower limb biomechanics: time to discuss hop distance as decision criterion for return to sport after ACL reconstruction?. <i>British Journal of Sports Medicine</i> , 2022, 56, 249-256. | 3.1 | 51 |
| 40 | Arm swing in human walking: What is their drive?. <i>Gait and Posture</i> , 2014, 40, 321-326. | 0.6 | 50 |
| 41 | Test-Retest Reliability of Innovated Strength Tests for Hip Muscles. <i>PLoS ONE</i> , 2013, 8, e81149. | 1.1 | 48 |
| 42 | Control of angular momentum during walking in children with cerebral palsy. <i>Research in Developmental Disabilities</i> , 2011, 32, 2860-2866. | 1.2 | 47 |
| 43 | Hip movement pathomechanics of patients with hip osteoarthritis aim at reducing hip joint loading on the osteoarthritic side. <i>Gait and Posture</i> , 2018, 59, 11-17. | 0.6 | 47 |
| 44 | Model-based control for exoskeletons with series elastic actuators evaluated on sit-to-stand movements. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2019, 16, 65. | 2.4 | 47 |
| 45 | Physics-Based Simulations to Predict the Differential Effects of Motor Control and Musculoskeletal Deficits on Gait Dysfunction in Cerebral Palsy: A Retrospective Case Study. <i>Frontiers in Human Neuroscience</i> , 2020, 14, 40. | 1.0 | 46 |
| 46 | Knee Cartilage Thickness, T1 ρ and T2 Relaxation Time Are Related to Articular Cartilage Loading in Healthy Adults. <i>PLoS ONE</i> , 2017, 12, e0170002. | 1.1 | 46 |
| 47 | Proprioceptive accuracy in women with early and established knee osteoarthritis and its relation to functional ability, postural control, and muscle strength. <i>Clinical Rheumatology</i> , 2013, 32, 1365-1374. | 1.0 | 45 |
| 48 | The study of muscle action during single support and swing phase of gait: clinical relevance of forward simulation techniques. <i>Gait and Posture</i> , 2003, 17, 97-105. | 0.6 | 44 |
| 49 | Hip contact force in presence of aberrant bone geometry during normal and pathological gait. <i>Journal of Orthopaedic Research</i> , 2014, 32, 1406-1415. | 1.2 | 44 |
| 50 | Muscle optimization techniques impact the magnitude of calculated hip joint contact forces. <i>Journal of Orthopaedic Research</i> , 2015, 33, 430-438. | 1.2 | 44 |
| 51 | Mobile assessment of the lower limb kinematics in healthy persons and in persons with degenerative knee disorders: A systematic review. <i>Gait and Posture</i> , 2018, 59, 229-241. | 0.6 | 44 |
| 52 | Three-dimensional reaching tasks: Effect of reaching height and width on upper limb kinematics and muscle activity. <i>Gait and Posture</i> , 2010, 32, 500-507. | 0.6 | 43 |
| 53 | Gait stability in children with Cerebral Palsy. <i>Research in Developmental Disabilities</i> , 2013, 34, 1689-1699. | 1.2 | 43 |
| 54 | Similar muscles contribute to horizontal and vertical acceleration of center of mass in forward and backward walking: implications for neural control. <i>Journal of Neurophysiology</i> , 2012, 107, 3385-3396. | 0.9 | 42 |

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|----|---|-----|-----------|
| 55 | Virtual reconstruction of glenoid bone defects using a statistical shape model. <i>Journal of Shoulder and Elbow Surgery</i> , 2018, 27, 160-166. | 1.2 | 42 |
| 56 | Virtual reality balance training for elderly: Similar skiing games elicit different challenges in balance training. <i>Gait and Posture</i> , 2018, 59, 111-116. | 0.6 | 42 |
| 57 | A multi-scale modelling framework combining musculoskeletal rigid-body simulations with adaptive finite element analyses, to evaluate the impact of femoral geometry on hip joint contact forces and femoral bone growth. <i>PLoS ONE</i> , 2020, 15, e0235966. | 1.1 | 42 |
| 58 | Transmission of Whole-Body Vibration and Its Effect on Muscle Activation. <i>Journal of Strength and Conditioning Research</i> , 2013, 27, 2533-2541. | 1.0 | 40 |
| 59 | SimCP: A Simulation Platform to Predict Gait Performance Following Orthopedic Intervention in Children With Cerebral Palsy. <i>Frontiers in Neurorobotics</i> , 2019, 13, 54. | 1.6 | 40 |
| 60 | A multilevel approach to botulinum toxin type A treatment of the (ilio)psaos in spasticity in cerebral palsy. <i>European Journal of Neurology</i> , 1999, 6, s59-s62. | 1.7 | 39 |
| 61 | Mechanobiological prediction of proximal femoral deformities in children with cerebral palsy. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2011, 14, 253-262. | 0.9 | 39 |
| 62 | Medial knee loading is altered in subjects with early osteoarthritis during gait but not during step-up-and-over task. <i>PLoS ONE</i> , 2017, 12, e0187583. | 1.1 | 39 |
| 63 | Altered talar and navicular bone morphology is associated with pes planus deformity: A CT scan study. <i>Journal of Orthopaedic Research</i> , 2013, 31, 282-287. | 1.2 | 38 |
| 64 | Role of subject-specific musculoskeletal loading on the prediction of bone density distribution in the proximal femur. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 30, 244-252. | 1.5 | 37 |
| 65 | Subject-specific geometrical detail rather than cost function formulation affects hip loading calculation. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2016, 19, 1475-1488. | 0.9 | 37 |
| 66 | A patient-specific guide for optimizing custom-made glenoid implantation in cases of severe glenoid defects: an in vitro study. <i>Journal of Shoulder and Elbow Surgery</i> , 2016, 25, 837-845. | 1.2 | 36 |
| 67 | The influence of maximum isometric muscle force scaling on estimated muscle forces from musculoskeletal models of children with cerebral palsy. <i>Gait and Posture</i> , 2018, 65, 213-220. | 0.6 | 36 |
| 68 | Longitudinal joint loading in patients before and up to one year after unilateral total hip arthroplasty. <i>Gait and Posture</i> , 2018, 61, 117-124. | 0.6 | 35 |
| 69 | Increased use of stepping strategy in response to medio-lateral perturbations in the elderly relates to altered reactive tibialis anterior activity. <i>Gait and Posture</i> , 2019, 68, 575-582. | 0.6 | 35 |
| 70 | Musculo-tendon length and lengthening velocity of rectus femoris in stiff knee gait. <i>Gait and Posture</i> , 2006, 23, 222-229. | 0.6 | 34 |
| 71 | How gravity and muscle action control mediolateral center of mass excursion during slow walking: A simulation study. <i>Gait and Posture</i> , 2014, 39, 91-97. | 0.6 | 34 |
| 72 | Control of propulsion and body lift during the first two stances of sprint running: a simulation study. <i>Journal of Sports Sciences</i> , 2015, 33, 2016-2024. | 1.0 | 34 |

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|----|--|-----|-----------|
| 73 | A methodological framework for detecting ulcersâ€™ risk in diabetic foot subjects by combining gait analysis, a new musculoskeletal foot model and a foot finite element model. <i>Gait and Posture</i> , 2018, 60, 279-285. | 0.6 | 34 |
| 74 | OpenSim Versus Human Body Model: A Comparison Study for the Lower Limbs During Gait. <i>Journal of Applied Biomechanics</i> , 2018, 34, 496-502. | 0.3 | 33 |
| 75 | Generic scaled versus subject-specific models for the calculation of musculoskeletal loading in cerebral palsy gait: Effect of personalized musculoskeletal geometry outweighs the effect of personalized neural control. <i>Clinical Biomechanics</i> , 2021, 87, 105402. | 0.5 | 33 |
| 76 | The effect of muscle weakness on the capability gap during gross motor function: a simulation study supporting design criteria for exoskeletons of the lower limb. <i>BioMedical Engineering OnLine</i> , 2014, 13, 111. | 1.3 | 32 |
| 77 | Altering length and velocity feedback during a neuro-musculoskeletal simulation of normal gait contributes to hemiparetic gait characteristics. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2014, 11, 78. | 2.4 | 32 |
| 78 | Subject-specific musculoskeletal modelling in patients before and after total hip arthroplasty. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2016, 19, 1683-1691. | 0.9 | 32 |
| 79 | Sensitivity of predicted muscle forces during gait to anatomical variability in musculotendon geometry. <i>Journal of Biomechanics</i> , 2015, 48, 2116-2123. | 0.9 | 31 |
| 80 | An EMG-based, muscle driven forward simulation of single support phase of gait. <i>Journal of Biomechanics</i> , 2002, 35, 609-619. | 0.9 | 30 |
| 81 | Use of Computational Modeling to Study Joint Degeneration: A Review. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 93. | 2.0 | 30 |
| 82 | A Machine Learning Approach to Estimate Hip and Knee Joint Loading Using a Mobile Phone-Embedded IMU. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 320. | 2.0 | 29 |
| 83 | Modulation of gluteus medius activity reflects the potential of the muscle to meet the mechanical demands during perturbed walking. <i>Scientific Reports</i> , 2018, 8, 11675. | 1.6 | 28 |
| 84 | Extended foot-ankle musculoskeletal models for application in movement analysis. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017, 20, 153-159. | 0.9 | 27 |
| 85 | Real-Time Gait Event Detection Based on Kinematic Data Coupled to a Biomechanical Model â€™. <i>Sensors</i> , 2017, 17, 671. | 2.1 | 27 |
| 86 | ANP32A regulates ATM expression and prevents oxidative stress in cartilage, brain, and bone. <i>Science Translational Medicine</i> , 2018, 10, . | 5.8 | 27 |
| 87 | Ranking of osteogenic potential of physical exercises in postmenopausal women based on femoral neck strains. <i>PLoS ONE</i> , 2018, 13, e0195463. | 1.1 | 27 |
| 88 | The influence of knee joint geometry and alignment on the tibiofemoral load distribution: A computational study. <i>Knee</i> , 2019, 26, 813-823. | 0.8 | 27 |
| 89 | The effect of perturbing body segment parameters on calculated joint moments and muscle forces during gait. <i>Journal of Biomechanics</i> , 2014, 47, 596-601. | 0.9 | 26 |
| 90 | Performance specification for lower limb orthotic devices. <i>Clinical Biomechanics</i> , 2004, 19, 711-718. | 0.5 | 25 |

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|-----|---|-----|-----------|
| 91 | An in vitro approach to the evaluation of foot-ankle kinematics: Performance evaluation of a custom-built gait simulator. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2013, 227, 955-967. | 1.0 | 25 |
| 92 | Quantifying thumb opposition kinematics using dynamic computed tomography. Journal of Biomechanics, 2016, 49, 1994-1999. | 0.9 | 25 |
| 93 | Successful Preliminary Walking Experiments on a Transtibial Amputee Fitted with a Powered Prosthesis. Prosthetics and Orthotics International, 2009, 33, 368-377. | 0.5 | 24 |
| 94 | Early periprosthetic bone remodelling around cemented and uncemented custom-made femoral components and their uncemented acetabular cups. Archives of Orthopaedic and Trauma Surgery, 2011, 131, 941-948. | 1.3 | 24 |
| 95 | Inverse dynamic estimates of muscle recruitment and joint contact forces are more realistic when minimizing muscle activity rather than metabolic energy or contact forces. Gait and Posture, 2019, 74, 223-230. | 0.6 | 24 |
| 96 | Combined enzymatic degradation of proteoglycans and collagen significantly alters intratissue strains in articular cartilage during cyclic compression. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 98, 383-394. | 1.5 | 24 |
| 97 | A new method for estimating subject-specific muscle-tendon parameters of the knee joint actuators: a simulation study. International Journal for Numerical Methods in Biomedical Engineering, 2014, 30, 969-987. | 1.0 | 22 |
| 98 | Musculoskeletal modelling in dogs: challenges and future perspectives. Veterinary and Comparative Orthopaedics and Traumatology, 2016, 29, 181-187. | 0.2 | 22 |
| 99 | Mechanical effort predicts the selection of ankle over hip strategies in nonstepping postural responses. Journal of Neurophysiology, 2016, 116, 1937-1945. | 0.9 | 22 |
| 100 | Musculotendon excursion potential, tendon slack and muscle fibre length: the interaction of the canine gastrocnemius muscle and tendon. Journal of Anatomy, 2018, 233, 460-467. | 0.9 | 22 |
| 101 | Selective dorsal rhizotomy improves muscle forces during walking in children with spastic cerebral palsy. Clinical Biomechanics, 2019, 65, 26-33. | 0.5 | 22 |
| 102 | Comparison of lower limb muscle strength between diabetic neuropathic and healthy subjects using OpenSim. Gait and Posture, 2017, 58, 194-200. | 0.6 | 21 |
| 103 | Cartilage-on-cartilage contact: effect of compressive loading on tissue deformations and structural integrity of bovine articular cartilage. Osteoarthritis and Cartilage, 2018, 26, 1699-1709. | 0.6 | 21 |
| 104 | Implementation of physiological functional spinal units in a rigid-body model of the thoracolumbar spine. Journal of Biomechanics, 2020, 98, 109437. | 0.9 | 21 |
| 105 | Image Based Musculoskeletal Modeling Allows Personalized Biomechanical Analysis of Gait. Lecture Notes in Computer Science, 2006, , 58-66. | 1.0 | 21 |
| 106 | Muscular effort in multiple sclerosis patients during powered wheelchair manoeuvres. Clinical Biomechanics, 2004, 19, 929-938. | 0.5 | 20 |
| 107 | Influence of altered gait patterns on the hip joint contact forces. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 352-359. | 0.9 | 20 |
| 108 | Differences in knee adduction moment between healthy subjects and patients with osteoarthritis depend on the knee axis definition. Gait and Posture, 2017, 53, 104-109. | 0.6 | 20 |

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|-----|---|-----|-----------|
| 109 | Augmented Ligament Reconstruction Partially Restores Hindfoot and Midfoot Kinematics After Lateral Ligament Ruptures. <i>American Journal of Sports Medicine</i> , 2019, 47, 1921-1930. | 1.9 | 20 |
| 110 | In Silico-Enhanced Treatment and Rehabilitation Planning for Patients with Musculoskeletal Disorders: Can Musculoskeletal Modelling and Dynamic Simulations Really Impact Current Clinical Practice?. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7255. | 1.3 | 20 |
| 111 | Forefoot deformation during stance: Does the forefoot collapse during loading?. <i>Gait and Posture</i> , 2014, 39, 40-47. | 0.6 | 19 |
| 112 | Does surgical approach or prosthesis type affect hip joint loading one year after surgery?. <i>Gait and Posture</i> , 2016, 44, 74-82. | 0.6 | 19 |
| 113 | Symmetry in Triple Hop Distance Hides Asymmetries in Knee Function After ACL Reconstruction in Athletes at Return to Sports. <i>American Journal of Sports Medicine</i> , 2022, 50, 441-450. | 1.9 | 19 |
| 114 | Image based methods to generate subject-specific musculoskeletal models for gait analysis. <i>International Congress Series</i> , 2005, 1281, 62-67. | 0.2 | 18 |
| 115 | Functional knee axis based on isokinetic dynamometry data: Comparison of two methods, MRI validation, and effect on knee joint kinematics. <i>Journal of Biomechanics</i> , 2011, 44, 2595-2600. | 0.9 | 18 |
| 116 | A physiology-based inverse dynamic analysis of human gait using sequential convex programming: a comparative study. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2012, 15, 1093-1102. | 0.9 | 18 |
| 117 | Computed tomography-based joint locations affect calculation of joint moments during gait when compared to scaling approaches. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2015, 18, 1238-1251. | 0.9 | 18 |
| 118 | The role of altered proximal femoral geometry in impaired pelvis stability and hip control during CP gait: A simulation study. <i>Gait and Posture</i> , 2016, 44, 61-67. | 0.6 | 18 |
| 119 | Similar sensorimotor transformations control balance during standing and walking. <i>PLoS Computational Biology</i> , 2021, 17, e1008369. | 1.5 | 18 |
| 120 | In vitro analysis of muscle activity illustrates mediolateral decoupling of hind and mid foot bone motion. <i>Gait and Posture</i> , 2013, 38, 56-61. | 0.6 | 17 |
| 121 | Muscle contributions to centre of mass acceleration during turning gait in typically developing children: A simulation study. <i>Journal of Biomechanics</i> , 2015, 48, 4238-4245. | 0.9 | 17 |
| 122 | Automated quantification of glenoid bone defects using 3-dimensional measurements. <i>Journal of Shoulder and Elbow Surgery</i> , 2020, 29, 1050-1058. | 1.2 | 17 |
| 123 | Dynamic simulation of human motion: numerically efficient inclusion of muscle physiology by convex optimization. <i>Optimization and Engineering</i> , 2008, 9, 213-238. | 1.3 | 16 |
| 124 | The added value of an actuated ankle-foot orthosis to restore normal gait function in patients with spinal cord injury: A systematic review. <i>Journal of Rehabilitation Medicine</i> , 2012, 44, 299-309. | 0.8 | 16 |
| 125 | Evaluation of predicted knee function for component malrotation in total knee arthroplasty. <i>Medical Engineering and Physics</i> , 2017, 40, 56-64. | 0.8 | 16 |
| 126 | Performance on Balance Evaluation Systems Test (BESTest) Impacts Health-Related Quality of Life in Adult Spinal Deformity Patients. <i>Spine</i> , 2018, 43, 637-646. | 1.0 | 16 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 127 | Functional MRI can detect changes in intratissue strains in a full thickness and critical sized ovine cartilage defect model. <i>Journal of Biomechanics</i> , 2018, 66, 18-25. | 0.9 | 16 |
| 128 | The Exo4Work shoulder exoskeleton effectively reduces muscle and joint loading during simulated occupational tasks above shoulder height. <i>Applied Ergonomics</i> , 2022, 103, 103800. | 1.7 | 16 |
| 129 | Estimation of hamstring length at initial contact based on kinematic gait data. <i>Gait and Posture</i> , 2004, 20, 61-66. | 0.6 | 15 |
| 130 | Increased sensory noise and not muscle weakness explains changes in non-stepping postural responses following stance perturbations in healthy elderly. <i>Gait and Posture</i> , 2018, 59, 122-127. | 0.6 | 15 |
| 131 | Functional assessment of strains around a full-thickness and critical sized articular cartilage defect under compressive loading using MRI. <i>Osteoarthritis and Cartilage</i> , 2018, 26, 1710-1721. | 0.6 | 15 |
| 132 | 12 Degrees of Freedom Muscle Force Driven Fibril-Reinforced Poroviscoelastic Finite Element Model of the Knee Joint. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2021, 29, 123-133. | 2.7 | 15 |
| 133 | Muscle contributions to center of mass acceleration adapt to asymmetric walking in healthy subjects. <i>Gait and Posture</i> , 2013, 38, 739-744. | 0.6 | 14 |
| 134 | Topographical Variation of Human Femoral Articular Cartilage Thickness, T1rho and T2 Relaxation Times Is Related to Local Loading during Walking. <i>Cartilage</i> , 2019, 10, 229-237. | 1.4 | 14 |
| 135 | Virtual Reality Balance Games Provide Little Muscular Challenge to Prevent Muscle Weakness in Healthy Older Adults. <i>Games for Health Journal</i> , 2020, 9, 227-236. | 1.1 | 14 |
| 136 | The Effect of Saddle Position on Maximal Power Output and Moment Generating Capacity of Lower Limb Muscles during Isokinetic Cycling. <i>Journal of Applied Biomechanics</i> , 2011, 27, 1-7. | 0.3 | 13 |
| 137 | Quantifying individual muscle contribution to three-dimensional reaching tasks. <i>Gait and Posture</i> , 2012, 35, 579-584. | 0.6 | 12 |
| 138 | Inertial control as novel technique for in vitro gait simulations. <i>Journal of Biomechanics</i> , 2015, 48, 392-395. | 0.9 | 12 |
| 139 | ESB Clinical Biomechanics Award 2020: Pelvis and hip movement strategies discriminate typical and pathological femoral growth – Insights gained from a multi-scale mechanobiological modelling framework. <i>Clinical Biomechanics</i> , 2021, 87, 105405. | 0.5 | 12 |
| 140 | Less hip joint loading only during running rather than walking in elderly compared to young adults. <i>Gait and Posture</i> , 2017, 53, 155-161. | 0.6 | 11 |
| 141 | Development and validation of a modeling workflow for the generation of image-based, subject-specific thoracolumbar models of spinal deformity. <i>Journal of Biomechanics</i> , 2020, 110, 109946. | 0.9 | 11 |
| 142 | Specimen-specific tibial kinematics model for in vitro gait simulations. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2013, 227, 454-463. | 1.0 | 10 |
| 143 | Changes in proprioceptive weighting during quiet standing in women with early and established knee osteoarthritis compared to healthy controls. <i>Gait and Posture</i> , 2016, 44, 184-188. | 0.6 | 10 |
| 144 | Joint power generation differentiates young and adult sprinters during the transition from block start into acceleration: a cross-sectional study. <i>Sports Biomechanics</i> , 2017, 16, 452-462. | 0.8 | 10 |

| # | ARTICLE | IF | CITATIONS |
|-----|--|-----|-----------|
| 145 | Effect of a prehop on the muscle-tendon interaction during vertical jumps. <i>Journal of Applied Physiology</i> , 2018, 124, 1203-1211. | 1.2 | 10 |
| 146 | Patients With Medial Knee Osteoarthritis Reduce Medial Knee Contact Forces by Altering Trunk Kinematics, Progression Speed, and Stepping Strategy During Stair Ascent and Descent: A Pilot Study. <i>Journal of Applied Biomechanics</i> , 2019, 35, 280-289. | 0.3 | 10 |
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