

Michael S Andersen

List of Publications by Year in descending order

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Version: 2024-02-01

78
papers

2,523
citations

236925

25
h-index

206112

48
g-index

80
all docs

80
docs citations

80
times ranked

1876
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | A Subject-Specific Musculoskeletal Modeling Framework to Predict In Vivo Mechanics of Total Knee Arthroplasty. <i>Journal of Biomechanical Engineering</i> , 2015, 137, 020904. | 1.3 | 209 |
| 2 | A computationally efficient optimisation-based method for parameter identification of kinematically determinate and over-determinate biomechanical systems. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2010, 13, 171-183. | 1.6 | 156 |
| 3 | Estimation of Ground Reaction Forces and Moments During Gait Using Only Inertial Motion Capture. <i>Sensors</i> , 2017, 17, 75. | 3.8 | 155 |
| 4 | Prediction of ground reaction forces and moments during various activities of daily living. <i>Journal of Biomechanics</i> , 2014, 47, 2321-2329. | 2.1 | 152 |
| 5 | Kinematic analysis of over-determinate biomechanical systems. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2009, 12, 371-384. | 1.6 | 139 |
| 6 | Do kinematic models reduce the effects of soft tissue artefacts in skin marker-based motion analysis? An in vivo study of knee kinematics. <i>Journal of Biomechanics</i> , 2010, 43, 268-273. | 2.1 | 124 |
| 7 | Scaling of musculoskeletal models from static and dynamic trials. <i>International Biomechanics</i> , 2015, 2, 1-11. | 1.0 | 116 |
| 8 | Relationship between knee joint contact forces and external knee joint moments in patients with medial knee osteoarthritis: effects of gait modifications. <i>Osteoarthritis and Cartilage</i> , 2018, 26, 1203-1214. | 1.3 | 104 |
| 9 | On validation of multibody musculoskeletal models. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2012, 226, 82-94. | 1.8 | 100 |
| 10 | Musculoskeletal model-based inverse dynamic analysis under ambulatory conditions using inertial motion capture. <i>Medical Engineering and Physics</i> , 2019, 65, 68-77. | 1.7 | 75 |
| 11 | Surface marker cluster translation, rotation, scaling and deformation: Their contribution to soft tissue artefact and impact on knee joint kinematics. <i>Journal of Biomechanics</i> , 2015, 48, 2124-2129. | 2.1 | 68 |
| 12 | Prediction of ground reaction forces and moments during sports-related movements. <i>Multibody System Dynamics</i> , 2017, 39, 175-195. | 2.7 | 67 |
| 13 | Multibody Kinematics Optimization for the Estimation of Upper and Lower Limb Human Joint Kinematics: A Systematized Methodological Review. <i>Journal of Biomechanical Engineering</i> , 2018, 140, . | 1.3 | 56 |
| 14 | A musculoskeletal foot model for clinical gait analysis. <i>Journal of Biomechanics</i> , 2010, 43, 1645-1652. | 2.1 | 54 |
| 15 | Estimation of the Knee Adduction Moment and Joint Contact Force during Daily Living Activities Using Inertial Motion Capture. <i>Sensors</i> , 2019, 19, 1681. | 3.8 | 52 |
| 16 | A linear soft tissue artefact model for human movement analysis: Proof of concept using in vivo data. <i>Gait and Posture</i> , 2012, 35, 606-611. | 1.4 | 50 |
| 17 | Prediction of ground reaction forces for Parkinson's disease patients using a kinect-driven musculoskeletal gait analysis model. <i>Medical Engineering and Physics</i> , 2017, 50, 75-82. | 1.7 | 45 |
| 18 | Workflow assessing the effect of gait alterations on stresses in the medial tibial cartilage - combined musculoskeletal modelling and finite element analysis. <i>Scientific Reports</i> , 2017, 7, 17396. | 3.3 | 45 |

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|----|---|-----|-----------|
| 19 | Individual motion patterns during gait and sit-to-stand contribute to edge-loading risk in metal-on-metal hip resurfacing. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2013, 227, 799-810. | 1.8 | 42 |
| 20 | A compact 3-DOF shoulder mechanism constructed with scissors linkages for exoskeleton applications. Mechanism and Machine Theory, 2019, 132, 264-278. | 4.5 | 42 |
| 21 | Introduction to Force-Dependent Kinematics: Theory and Application to Mandible Modeling. Journal of Biomechanical Engineering, 2017, 139, . | 1.3 | 41 |
| 22 | Optimal acetabular component orientation estimated using edge-loading and impingement risk in patients with metal-on-metal hip resurfacing arthroplasty. Journal of Biomechanics, 2015, 48, 318-323. | 2.1 | 39 |
| 23 | The application of musculoskeletal modeling to investigate gender bias in non-contact ACL injury rate during single-leg landings. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 1602-1616. | 1.6 | 28 |
| 24 | Optimization-based dynamic prediction of kinematic and kinetic patterns for a human vertical jump from a squatting position. Multibody System Dynamics, 2016, 36, 37-65. | 2.7 | 28 |
| 25 | A musculoskeletal model driven by dual Microsoft Kinect Sensor data. Multibody System Dynamics, 2017, 41, 297-316. | 2.7 | 27 |
| 26 | Knee internal contact force in a varus malaligned phenotype in knee osteoarthritis (KOA). Osteoarthritis and Cartilage, 2017, 25, 2007-2013. | 1.3 | 26 |
| 27 | Influence of the Anterolateral Ligament on Knee Laxity: A Biomechanical Cadaveric Study Measuring Knee Kinematics in 6 Degrees of Freedom Using Dynamic Radiostereometric Analysis. Orthopaedic Journal of Sports Medicine, 2018, 6, 232596711878969. | 1.7 | 25 |
| 28 | Estimation of Spinal Loading During Manual Materials Handling Using Inertial Motion Capture. Annals of Biomedical Engineering, 2020, 48, 805-821. | 2.5 | 23 |
| 29 | Investigation of high-speed badminton racket kinematics by motion capture. Sports Engineering, 2011, 13, 57-63. | 1.1 | 22 |
| 30 | Effect of lateral wedged insoles on the knee internal contact forces in medial knee osteoarthritis. Gait and Posture, 2019, 68, 443-448. | 1.4 | 19 |
| 31 | Validation of static and dynamic radiostereometric analysis of the knee joint using bone models from CT data. Bone and Joint Research, 2017, 6, 376-384. | 3.6 | 18 |
| 32 | On the biomechanical relationship between applied hip, knee and ankle joint moments and the internal knee compressive forces. International Biomechanics, 2018, 5, 63-74. | 1.0 | 18 |
| 33 | Prediction of crank torque and pedal angle profiles during pedaling movements by biomechanical optimization. Structural and Multidisciplinary Optimization, 2015, 51, 251-266. | 3.5 | 16 |
| 34 | Evaluation of predicted knee function for component malrotation in total knee arthroplasty. Medical Engineering and Physics, 2017, 40, 56-64. | 1.7 | 16 |
| 35 | Comparison of predicted kinetic variables between Parkinson's disease patients and healthy age-matched control using a depth sensor-driven full-body musculoskeletal model. Gait and Posture, 2020, 76, 151-156. | 1.4 | 16 |
| 36 | Manual material handling in the supermarket sector. Part 2: Knee, spine and shoulder joint reaction forces. Applied Ergonomics, 2021, 92, 103345. | 3.1 | 16 |

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|----|---|-----|-----------|
| 37 | Computational modeling of a forward lunge: towards a better understanding of the function of the cruciate ligaments. <i>Journal of Anatomy</i> , 2012, 221, 590-597. | 1.5 | 15 |
| 38 | A closed-form formulation for the conformal articulation of metal-on-polyethylene hip prostheses: Contact mechanics and sliding distance. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2018, 232, 1196-1208. | 1.8 | 15 |
| 39 | AnyPyTools: A Python package for reproducible research with the AnyBody Modeling System. <i>Journal of Open Source Software</i> , 2019, 4, 1108. | 4.6 | 15 |
| 40 | Prediction of closed-chain human arm dynamics in a crank-rotation task. <i>Journal of Biomechanics</i> , 2016, 49, 2684-2693. | 2.1 | 14 |
| 41 | Effects of load mass and position on the dynamic loading of the knees, shoulders and lumbar spine during lifting: a musculoskeletal modelling approach. <i>Applied Ergonomics</i> , 2021, 96, 103491. | 3.1 | 14 |
| 42 | Development and validation of a subject-specific moving-axis tibiofemoral joint model using MRI and EOS imaging during a quasi-static lunge. <i>Journal of Biomechanics</i> , 2018, 72, 71-80. | 2.1 | 13 |
| 43 | Ground reaction force and joint moment estimation during gait using an Azure Kinect-driven musculoskeletal modeling approach. <i>Gait and Posture</i> , 2022, 95, 49-55. | 1.4 | 13 |
| 44 | Evaluation of a Surrogate Contact Model in Force-Dependent Kinematic Simulations of Total Knee Replacement. <i>Journal of Biomechanical Engineering</i> , 2017, 139, . | 1.3 | 12 |
| 45 | A parametric study of effect of experimental tibialis posterior muscle pain on joint loading and muscle forces—Implications for patients with rheumatoid arthritis?. <i>Gait and Posture</i> , 2019, 72, 102-108. | 1.4 | 12 |
| 46 | Evaluation of the accuracy of three popular regression equations for hip joint centre estimation using computerised tomography measurements for metal-on-metal hip resurfacing arthroplasty patients. <i>Gait and Posture</i> , 2013, 38, 1044-1047. | 1.4 | 11 |
| 47 | Introduction to musculoskeletal modelling. , 2021, , 41-80. | | 11 |
| 48 | Tibialis posterior muscle pain effects on hip, knee and ankle gait mechanics. <i>Human Movement Science</i> , 2019, 66, 98-108. | 1.4 | 10 |
| 49 | A dynamic model of polyethylene damage in dry total hip arthroplasties: wear and creep. <i>Multibody System Dynamics</i> , 2019, 45, 403-429. | 2.7 | 10 |
| 50 | A study of police operated dispatch to acute coronary syndrome cases arising from 112 emergency calls in Aarhus county, Denmark. <i>Emergency Medicine Journal</i> , 2006, 23, 705-706. | 1.0 | 9 |
| 51 | Gait alteration strategies for knee osteoarthritis: a comparison of joint loading via generic and patient-specific musculoskeletal model scaling techniques. <i>International Biomechanics</i> , 2019, 6, 54-65. | 1.0 | 9 |
| 52 | Manual material handling in the supermarket sector. Part 1: Joint angles and muscle activity of trapezius descendens and erector spinae longissimus. <i>Applied Ergonomics</i> , 2021, 92, 103340. | 3.1 | 9 |
| 53 | Estimation of ground reaction forces during stair climbing in patients with ACL reconstruction using a depth sensor-driven musculoskeletal model. <i>Gait and Posture</i> , 2021, 84, 232-237. | 1.4 | 9 |
| 54 | Human arm posture prediction in response to isometric endpoint forces. <i>Journal of Biomechanics</i> , 2015, 48, 4178-4184. | 2.1 | 8 |

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|----|---|-----|-----------|
| 55 | Ankle bracing effects on knee and hip mechanics during landing on inclined surfaces. <i>International Biomechanics</i> , 2016, 3, 22-32. | 1.0 | 8 |
| 56 | Development and Evaluation of a Subject-Specific Lower Limb Model With an Eleven-Degrees-of-Freedom Natural Knee Model Using Magnetic Resonance and Biplanar X-Ray Imaging During a Quasi-Static Lunge. <i>Journal of Biomechanical Engineering</i> , 2020, 142, . | 1.3 | 8 |
| 57 | How sensitive are predicted muscle and knee contact forces to normalization factors and polynomial order in the muscle recruitment criterion formulation?. <i>International Biomechanics</i> , 2018, 5, 88-103. | 1.0 | 7 |
| 58 | Different types of foot orthoses effect on gait mechanics in patients with rheumatoid arthritis. <i>Journal of Biomechanics</i> , 2021, , 110496. | 2.1 | 7 |
| 59 | Effects of a semi-rigid ankle brace on ankle joint loading during landing on inclined surfaces. <i>International Biomechanics</i> , 2018, 5, 46-56. | 1.0 | 6 |
| 60 | The reachable 3-D workspace volume is a measure of payload and body-mass-index: A quasi-static kinetic assessment. <i>Applied Ergonomics</i> , 2019, 75, 108-119. | 3.1 | 6 |
| 61 | Influence of gravity on biomechanics in flywheel squat and leg press. <i>Sports Biomechanics</i> , 2023, 22, 767-783. | 1.6 | 6 |
| 62 | Development and Functional Testing of an Unloading Concept for Knee Osteoarthritis Patients: A Pilot Study. <i>Journal of Biomechanical Engineering</i> , 2022, 144, . | 1.3 | 6 |
| 63 | Effect of Ligament Properties on Nonlinear Dynamics and Wear Prediction of Knee Prostheses. <i>Journal of Biomechanical Engineering</i> , 2021, 143, . | 1.3 | 6 |
| 64 | Validation of subject-specific musculoskeletal models using the anatomical reachable 3-D workspace. <i>Journal of Biomechanics</i> , 2019, 90, 92-102. | 2.1 | 4 |
| 65 | Evaluation of automated radiostereometric image registration in total knee arthroplasty utilizing a syntheticâ€based and a CTâ€based volumetric model. <i>Journal of Orthopaedic Research</i> , 2023, 41, 436-446. | 2.3 | 4 |
| 66 | Evaluation of predicted patellofemoral joint kinematics with a moving-axis joint model. <i>Medical Engineering and Physics</i> , 2019, 73, 85-91. | 1.7 | 2 |
| 67 | On the Effect of Friction on Tibiofemoral Joint Kinematics. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 7516. | 2.5 | 2 |
| 68 | An anatomy-based dynamic model of total knee arthroplasty. <i>Nonlinear Dynamics</i> , 2021, 106, 3539. | 5.2 | 2 |
| 69 | Monitoring joint mechanics in anterior cruciate ligament reconstruction using depth sensor-driven musculoskeletal modeling and statistical parametric mapping. <i>Medical Engineering and Physics</i> , 2022, 103, 103796. | 1.7 | 2 |
| 70 | The effect of foot orthoses on gait biomechanics and pain among people with rheumatoid arthritis: A quasi-experimental study. <i>Gait and Posture</i> , 2022, 95, 121-128. | 1.4 | 2 |
| 71 | Medial congruent polyethylene design show different tibiofemoral kinematics and enhanced congruency compared to a standard symmetrical cruciate retaining design for total knee arthroplastyâ€an in vivo randomized controlled study of gait using dynamic radiostereometry. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2023, 31, 933-945. | 4.2 | 2 |
| 72 | Scaling and Local Marker Coordinates Determination of Musculoskeletal Systems. , 2007, , . | | 1 |

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|----|---|-----|-----------|
| 73 | Patient-specific foot orthotics improves postural control of rheumatoid arthritis patients: a pilot study. <i>Footwear Science</i> , 2017, 9, S17-S18. | 2.1 | 1 |
| 74 | Comparison of Joint and Muscle Biomechanics in Maximal Flywheel Squat and Leg Press. <i>Frontiers in Sports and Active Living</i> , 2021, 3, 686335. | 1.8 | 1 |
| 75 | Letter to the Editor. <i>Journal of Theoretical Biology</i> , 2012, 298, 154-155. | 1.7 | 0 |
| 76 | Semi-rigid ankle braces and force transfer in the ankle joint when landing on inclined surfaces. <i>Footwear Science</i> , 2015, 7, S19-S21. | 2.1 | 0 |
| 77 | A Case Study on Designing a Passive Feeding-Assistive Orthosis for Arthrogyriposis. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2020, 14, . | 0.7 | 0 |
| 78 | Rigid-body and musculoskeletal models. , 2022, , 659-680. | | 0 |