

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	Influence of gravity on biomechanics in flywheel squat and leg press. <i>Sports Biomechanics</i> , 2023, 22, 767-783.	1.6	6
2	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
3	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
4	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
5	Rigid-body and musculoskeletal models. , 2022, , 659-680.		0
6	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
7	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
8	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
9	Introduction to musculoskeletal modelling. , 2021, , 41-80.		11
10	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
11	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
12	Different types of foot orthoses effect on gait mechanics in patients with rheumatoid arthritis. <i>Journal of Biomechanics</i> , 2021, , 110496.	2.1	7
13	Manual material handling in the supermarket sector. Part 2: Knee, spine and shoulder joint reaction forces. <i>Applied Ergonomics</i> , 2021, 92, 103345.	3.1	16
14	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
15	On the Effect of Friction on Tibiofemoral Joint Kinematics. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 7516.	2.5	2
16	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
17	Effect of Ligament Properties on Nonlinear Dynamics and Wear Prediction of Knee Prostheses. <i>Journal of Biomechanical Engineering</i> , 2021, 143, .	1.3	6
18	An anatomy-based dynamic model of total knee arthroplasty. <i>Nonlinear Dynamics</i> , 2021, 106, 3539.	5.2	2

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19	Comparison of predicted kinetic variables between Parkinson's disease patients and healthy age-matched control using a depth sensor-driven full-body musculoskeletal model. <i>Gait and Posture</i> , 2020, 76, 151-156.	1.4	16
20	Estimation of Spinal Loading During Manual Materials Handling Using Inertial Motion Capture. <i>Annals of Biomedical Engineering</i> , 2020, 48, 805-821.	2.5	23
21	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
22	A Case Study on Designing a Passive Feeding-Assistive Orthosis for Arthrogryposis. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2020, 14, .	0.7	0
23	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
24	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
25	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
26	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
27	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
28	Tibialis posterior muscle pain effects on hip, knee and ankle gait mechanics. <i>Human Movement Science</i> , 2019, 66, 98-108.	1.4	10
29	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
30	Effect of lateral wedged insoles on the knee internal contact forces in medial knee osteoarthritis. <i>Gait and Posture</i> , 2019, 68, 443-448.	1.4	19
31	A compact 3-DOF shoulder mechanism constructed with scissors linkages for exoskeleton applications. <i>Mechanism and Machine Theory</i> , 2019, 132, 264-278.	4.5	42
32	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
33	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
34	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
35	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
36	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

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37	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
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	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
40	On the biomechanical relationship between applied hip, knee and ankle joint moments and the internal knee compressive forces. <i>International Biomechanics</i> , 2018, 5, 63-74.	1.0	18
41	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
42	Influence of the Anterolateral Ligament on Knee Laxity: A Biomechanical Cadaveric Study Measuring Knee Kinematics in 6 Degrees of Freedom Using Dynamic Radiostereometric Analysis. <i>Orthopaedic Journal of Sports Medicine</i> , 2018, 6, 232596711878969.	1.7	25
43	Prediction of ground reaction forces and moments during sports-related movements. <i>Multibody System Dynamics</i> , 2017, 39, 175-195.	2.7	67
44	A musculoskeletal model driven by dual Microsoft Kinect Sensor data. <i>Multibody System Dynamics</i> , 2017, 41, 297-316.	2.7	27
45	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
46	Introduction to Force-Dependent Kinematics: Theory and Application to Mandible Modeling. <i>Journal of Biomechanical Engineering</i> , 2017, 139, .	1.3	41
47	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
48	Validation of static and dynamic radiostereometric analysis of the knee joint using bone models from CT data. <i>Bone and Joint Research</i> , 2017, 6, 376-384.	3.6	18
49	Evaluation of predicted knee function for component malrotation in total knee arthroplasty. <i>Medical Engineering and Physics</i> , 2017, 40, 56-64.	1.7	16
50	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
51	Knee internal contact force in a varus malaligned phenotype in knee osteoarthritis (KOA). <i>Osteoarthritis and Cartilage</i> , 2017, 25, 2007-2013.	1.3	26
52	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
53	Estimation of Ground Reaction Forces and Moments During Gait Using Only Inertial Motion Capture. <i>Sensors</i> , 2017, 17, 75.	3.8	155
54	Prediction of closed-chain human arm dynamics in a crank-rotation task. <i>Journal of Biomechanics</i> , 2016, 49, 2684-2693.	2.1	14

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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	Optimization-based dynamic prediction of kinematic and kinetic patterns for a human vertical jump from a squatting position. <i>Multibody System Dynamics</i> , 2016, 36, 37-65.	2.7	28
57	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
58	Optimal acetabular component orientation estimated using edge-loading and impingement risk in patients with metal-on-metal hip resurfacing arthroplasty. <i>Journal of Biomechanics</i> , 2015, 48, 318-323.	2.1	39
59	Scaling of musculoskeletal models from static and dynamic trials. <i>International Biomechanics</i> , 2015, 2, 1-11.	1.0	116
60	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
61	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
62	Human arm posture prediction in response to isometric endpoint forces. <i>Journal of Biomechanics</i> , 2015, 48, 4178-4184.	2.1	8
63	Prediction of crank torque and pedal angle profiles during pedaling movements by biomechanical optimization. <i>Structural and Multidisciplinary Optimization</i> , 2015, 51, 251-266.	3.5	16
64	The application of musculoskeletal modeling to investigate gender bias in non-contact ACL injury rate during single-leg landings. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2014, 17, 1602-1616.	1.6	28
65	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
66	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
67	Individual motion patterns during gait and sit-to-stand contribute to edge-loading risk in metal-on-metal hip resurfacing. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2013, 227, 799-810.	1.8	42
68	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
69	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
70	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
71	Letter to the Editor. <i>Journal of Theoretical Biology</i> , 2012, 298, 154-155.	1.7	0
72	Investigation of high-speed badminton racket kinematics by motion capture. <i>Sports Engineering</i> , 2011, 13, 57-63.	1.1	22

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73	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
74	A musculoskeletal foot model for clinical gait analysis. <i>Journal of Biomechanics</i> , 2010, 43, 1645-1652.	2.1	54
75	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
76	Kinematic analysis of over-determinate biomechanical systems. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2009, 12, 371-384.	1.6	139
77	Scaling and Local Marker Coordinates Determination of Musculoskeletal Systems. , 2007, , .		1
78	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