

# Michael S Andersen

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1569500/publications.pdf>

Version: 2024-02-01

78  
papers

2,523  
citations

236833

25  
h-index

206029

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.	0.6	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.	0.9	156
3	Estimation of Ground Reaction Forces and Moments During Gait Using Only Inertial Motion Capture. <i>Sensors</i> , 2017, 17, 75.	2.1	155
4	Prediction of ground reaction forces and moments during various activities of daily living. <i>Journal of Biomechanics</i> , 2014, 47, 2321-2329.	0.9	152
5	Kinematic analysis of over-determinate biomechanical systems. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2009, 12, 371-384.	0.9	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.	0.9	124
7	Scaling of musculoskeletal models from static and dynamic trials. <i>International Biomechanics</i> , 2015, 2, 1-11.	0.9	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.	0.6	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.	1.0	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.	0.8	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.	0.9	68
12	Prediction of ground reaction forces and moments during sports-related movements. <i>Multibody System Dynamics</i> , 2017, 39, 175-195.	1.7	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, .	0.6	56
14	A musculoskeletal foot model for clinical gait analysis. <i>Journal of Biomechanics</i> , 2010, 43, 1645-1652.	0.9	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.	2.1	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.	0.6	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.	0.8	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.	1.6	45

#	ARTICLE	IF	CITATIONS
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.	1.0	42
20	A compact 3-DOF shoulder mechanism constructed with scissors linkages for exoskeleton applications. Mechanism and Machine Theory, 2019, 132, 264-278.	2.7	42
21	Introduction to Force-Dependent Kinematics: Theory and Application to Mandible Modeling. Journal of Biomechanical Engineering, 2017, 139, .	0.6	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.	0.9	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.	0.9	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.	1.7	28
25	A musculoskeletal model driven by dual Microsoft Kinect Sensor data. Multibody System Dynamics, 2017, 41, 297-316.	1.7	27
26	Knee internal contact force in a varus malaligned phenotype in knee osteoarthritis (KOA). Osteoarthritis and Cartilage, 2017, 25, 2007-2013.	0.6	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.	0.8	25
28	Estimation of Spinal Loading During Manual Materials Handling Using Inertial Motion Capture. Annals of Biomedical Engineering, 2020, 48, 805-821.	1.3	23
29	Investigation of high-speed badminton racket kinematics by motion capture. Sports Engineering, 2011, 13, 57-63.	0.5	22
30	Effect of lateral wedged insoles on the knee internal contact forces in medial knee osteoarthritis. Gait and Posture, 2019, 68, 443-448.	0.6	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.	1.3	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.	0.9	18
33	Prediction of crank torque and pedal angle profiles during pedaling movements by biomechanical optimization. Structural and Multidisciplinary Optimization, 2015, 51, 251-266.	1.7	16
34	Evaluation of predicted knee function for component malrotation in total knee arthroplasty. Medical Engineering and Physics, 2017, 40, 56-64.	0.8	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.	0.6	16
36	Manual material handling in the supermarket sector. Part 2: Knee, spine and shoulder joint reaction forces. Applied Ergonomics, 2021, 92, 103345.	1.7	16

#	ARTICLE	IF	CITATIONS
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.	0.9	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.	1.0	15
39	AnyPyTools: A Python package for reproducible research with the AnyBody Modeling System. <i>Journal of Open Source Software</i> , 2019, 4, 1108.	2.0	15
40	Prediction of closed-chain human arm dynamics in a crank-rotation task. <i>Journal of Biomechanics</i> , 2016, 49, 2684-2693.	0.9	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.	1.7	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.	0.9	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.	0.6	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, .	0.6	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.	0.6	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.	0.6	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.	0.6	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.	1.7	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.	0.4	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.	0.9	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.	1.7	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.	0.6	9
54	Human arm posture prediction in response to isometric endpoint forces. <i>Journal of Biomechanics</i> , 2015, 48, 4178-4184.	0.9	8

#	ARTICLE	IF	CITATIONS
55	Ankle bracing effects on knee and hip mechanics during landing on inclined surfaces. <i>International Biomechanics</i> , 2016, 3, 22-32.	0.9	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, .	0.6	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.	0.9	7
58	Different types of foot orthoses effect on gait mechanics in patients with rheumatoid arthritis. <i>Journal of Biomechanics</i> , 2021, , 110496.	0.9	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.	0.9	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.	1.7	6
61	Influence of gravity on biomechanics in flywheel squat and leg press. <i>Sports Biomechanics</i> , 2023, 22, 767-783.	0.8	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, .	0.6	6
63	Effect of Ligament Properties on Nonlinear Dynamics and Wear Prediction of Knee Prostheses. <i>Journal of Biomechanical Engineering</i> , 2021, 143, .	0.6	6
64	Validation of subject-specific musculoskeletal models using the anatomical reachable 3-D workspace. <i>Journal of Biomechanics</i> , 2019, 90, 92-102.	0.9	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.	1.2	4
66	Evaluation of predicted patellofemoral joint kinematics with a moving-axis joint model. <i>Medical Engineering and Physics</i> , 2019, 73, 85-91.	0.8	2
67	On the Effect of Friction on Tibiofemoral Joint Kinematics. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 7516.	1.3	2
68	An anatomy-based dynamic model of total knee arthroplasty. <i>Nonlinear Dynamics</i> , 2021, 106, 3539.	2.7	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.	0.8	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.	0.6	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.	2.3	2
72	Scaling and Local Marker Coordinates Determination of Musculoskeletal Systems. , 2007, , .		1

#	ARTICLE	IF	CITATIONS
73	Patient-specific foot orthotics improves postural control of rheumatoid arthritis patients: a pilot study. <i>Footwear Science</i> , 2017, 9, S17-S18.	0.8	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.	0.9	1
75	Letter to the Editor. <i>Journal of Theoretical Biology</i> , 2012, 298, 154-155.	0.8	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.	0.8	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, .	0.4	0
78	Rigid-body and musculoskeletal models. , 2022, , 659-680.		0