John Rasmussen

List of Publications by Year
in descending order

102 papers	3,873 citations	201385 27 h-index	128067 60 g-index
109 all docs	109 docs citations	109 times ranked	2525 citing authors

#	Article	IF	Citations
1	Development and Functional Testing of an Unloading Concept for Knee Osteoarthritis Patients: A Pilot Study. Journal of Biomechanical Engineering, 2022, 144, .	0.6	6
2	Triceps surae strength balancing as a management option for early-stage knee osteoarthritis: A patient case. Clinical Biomechanics, 2022, 95, 105651.	0.5	2
3	The effects of bone remodeling on biomechanical behavior in a patient with an implant-supported overdenture. Computers in Biology and Medicine, 2021, 129, 104173.	3.9	9
4	An articulated spine and ribcage kinematic model for simulation of scoliosis deformities. Multibody System Dynamics, 2021, 53, 115-134.	1.7	4
5	A Simulation of the Effects of Badminton Serve Release Height. Applied Sciences (Switzerland), 2021, 11, 2903.	1.3	2
6	Running in circles: Describing running kinematics using Fourier series. Journal of Biomechanics, 2021, 115, 110187.	0.9	4
7	Biomechanical Evaluation of the Effect of Minimally Invasive Spine Surgery Compared with Traditional Approaches in Lifting Tasks. Frontiers in Bioengineering and Biotechnology, 2021, 9, 724854.	2.0	0
8	How Precisely Can Easily Accessible Variables Predict Achilles and Patellar Tendon Forces during Running?. Sensors, 2021, 21, 7418.	2.1	5
9	A Case Study on Designing a Passive Feeding-Assistive Orthosis for Arthrogryposis. Journal of Medical Devices, Transactions of the ASME, 2020, 14, .	0.4	0
10	Predictive Models in Biomechanics. Advances in Intelligent Systems and Computing, 2019, , 98-106.	0.5	0
11	The AnyBody Modeling System. , 2019, , 85-96.		11
12	Validation of subject-specific musculoskeletal models using the anatomical reachable 3-D workspace. Journal of Biomechanics, 2019, 90, 92-102.	0.9	4
13	Muscle-Tendon Unit Parameter Estimation of a Hill-Type Musculoskeletal Model Based on Experimentally Obtained Subject-Specific Torque Profiles. Journal of Biomechanical Engineering, 2019, 141, .	0.6	5
14	A compact 3-DOF shoulder mechanism constructed with scissors linkages for exoskeleton applications. Mechanism and Machine Theory, 2019, 132, 264-278.	2.7	42
15	The reachable 3-D workspace volume is a measure of payload and body-mass-index: A quasi-static kinetic assessment. Applied Ergonomics, 2019, 75, 108-119.	1.7	6
16	AnyPyTools: A Python package for reproducible research with the AnyBody Modeling System. Journal of Open Source Software, 2019, 4, 1108.	2.0	15
17	Development and simulation of a passive upper extremity orthosis for amyoplasia. Journal of Rehabilitation and Assistive Technologies Engineering, 2018, 5, 205566831876152.	0.6	8
18	Free kick goals in football: an unlikely success between failure and embarrassment. Sports Engineering, 2018, 21, 103-114.	0.5	1

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19	Projection of anthropometric correlation for virtual population modelling. International Journal of Human Factors Modelling and Simulation, 2018, 6, 16.	0.1	2
20	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
21	Introduction to Force-Dependent Kinematics: Theory and Application to Mandible Modeling. Journal of Biomechanical Engineering, 2017, 139, .	0.6	41
22	The Development of a Methodology to Determine the Relationship in Grip Size and Pressure to Racket Head Speed in a Tennis Forehand Stroke. Procedia Engineering, 2016, 147, 787-792.	1.2	4
23	Muscleâ€“tendon unit scaling methods of Hill-type musculoskeletal models: An overview. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2016, 230, 976-984.	1.0	25
24	Prediction of closed-chain human arm dynamics in a crank-rotation task. Journal of Biomechanics, 2016, 49, 2684-2693.	0.9	14
25	Sensitivity of lumbar spine loading to anatomical parameters. Journal of Biomechanics, 2016, 49, 953-958.	0.9	27
26	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
27	A Subject-Specific Musculoskeletal Modeling Framework to Predict In Vivo Mechanics of Total Knee Arthroplasty. Journal of Biomechanical Engineering, 2015, 137, 020904.	0.6	209
28	Development and validation of a rule-based strength scaling method for musculoskeletal modelling. International Journal of Human Factors Modelling and Simulation, 2015, 5, 19.	0.1	4
29	Scaling of musculoskeletal models from static and dynamic trials. International Biomechanics, 2015, 2, 1-11.	0.9	116
30	Human arm posture prediction in response to isometric endpoint forces. Journal of Biomechanics, 2015, 48, 4178-4184.	0.9	8
31	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
32	Combined finite element and multibody musculoskeletal investigation of a fractured clavicle with reconstruction plate. Computer Methods in Biomechanics and Biomedical Engineering, 2015, 18, 740-748.	0.9	35
33	Modeling and Design of a Spring-loaded, Cable-driven, Wearable Exoskeleton for the Upper Extremity. Modeling, Identification and Control, 2015, 36, 167-177.	0.6	30
34	Comparison between a Computational Seated Human Model and Experimental Verification Data. Applied Bionics and Biomechanics, 2014, 11, 175-183.	0.5	10
35	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
36	Is a computerâ€based measurement method superior to a recommended manual method by the ROHO^{Â®} Group to assess pressure in the sitting position?. Australian Occupational Therapy Journal, 2013, 60, 350-355.	0.6	0

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37	Elliptical posts allow for detailed control of non-equibiaxial straining of cell cultures. Journal of Tissue Viability, 2013, 22, 52-56.	0.9	3
38	How Good is Good Enough? Lessons in Musculoskeletal Model Validation With the Anybody Modeling System. Journal of Medical Devices, Transactions of the ASME, 2013, 7, .	0.4	4
39	How Good is Good Enough? Lessons in Musculoskeletal Model Validation With the Anybody Modeling System. , 2013, , .		0
40	On validation of multibody musculoskeletal models. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2012, 226, 82-94.	1.0	100
41	Advanced musculoskeletal simulation as an ergonomic design method. Work, 2012, 41, 6107-6111.	0.6	11
42	Performance optimization by musculoskeletal simulation. Movement and Sports Sciences - Science Et Motricite, 2012, , 73-83.	0.2	8
43	Multiple linear regression to develop strength scaled equations for knee and elbow joints based on age, gender and segment mass. International Journal of Human Factors Modelling and Simulation, 2012, 3, 32.	0.1	3
44	A linear soft tissue artefact model for human movement analysis: Proof of concept using in vivo data. Gait and Posture, 2012, 35, 606-611.	0.6	50
45	Computational modeling of a forward lunge: towards a better understanding of the function of the cruciate ligaments. Journal of Anatomy, 2012, 221, 590-597.	0.9	15
46	Performance optimization by musculoskeletal simulation. Science Et Motricite, 2012, , 75-75.	0.3	1
47	Modeling of the condyle elements within a biomechanical knee model. Multibody System Dynamics, 2012, 28, 181-197.	1.7	18
48	Letter to the Editor. Journal of Theoretical Biology, 2012, 298, 154-155.	0.8	0
49	The comminuted midshaft clavicle fracture: A biomechanical evaluation of plating methods. Clinical Biomechanics, 2011, 26, 491-496.	0.5	34
50	Investigation of high-speed badminton racket kinematics by motion capture. Sports Engineering, 2011, 13, 57-63.	0.5	22
51	Challenges in human body mechanics simulation. Procedia IUTAM, 2011, 2, 176-185.	1.2	11
52	Musculoskeletal computational analysis of the influence of car-seat design/adjustment on fatigue-induced driving. , 2011, , .		5
53	Uniaxial Cyclic Strain Drives Assembly and Differentiation of Skeletal Myocytes. Tissue Engineering - Part A, 2011, 17, 2543-2550.	1.6	57
54	The Effect of Muscle Loading on Internal Mechanical Parameters of the Lumbar Spine: A Finite Element Study. , 2011, , .		0

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55	Peak forces of the rotator cuff muscles during activity of daily livings performed by a wheelchair user. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 199-201.	0.9	0
56	The Influence of Muscle Forces on the Stress Distribution in the Lumbar Spine. Open Spine Journal, 2011, 3, 21-26.	0.4	3
57	odeling of Human Arm Energy Expenditure for Predicting Energy Optimal Trajectories. Modeling, Identification and Control, 2011, 32, 91-101.	0.6	12
58	Missing links in pressure ulcer researchâ€"An interdisciplinary overview. Journal of Applied Physiology, 2010, 108, 1458-1464.	1.2	50
59	Do kinematic models reduce the effects of soft tissue artefacts in skin marker-based motion analysis? An in vivo study of knee kinematics. Journal of Biomechanics, 2010, 43, 268-273.	0.9	124
60	Measurement of badminton racket deflection during a stroke. Sports Engineering, 2010, 12, 143-153.	0.5	22
61	Efficient human force transmission tailored for the individual cyclist. Procedia Engineering, 2010, 2, 2543-2548.	1.2	6
62	B-5 Hip Joint Kinematics in Activities of Daily Living. Journal of Biomechanics, 2010, 43, S25.	0.9	0
63	The importance of being elastic: Deflection of a badminton racket during a stroke. Journal of Sports Sciences, 2010, 28, 505-511.	1.0	6
64	A computationally efficient optimisation-based method for parameter identification of kinematically determinate and over-determinate biomechanical systems. Computer Methods in Biomechanics and Biomedical Engineering, 2010, 13, 171-183.	0.9	156
65	Computational Investigation of Two Interventions for Neck and Upper Extremity Pain in Office Workers. IFMBE Proceedings, 2010, , 64-66.	0.2	2
66	Prediction of Knee Loads Using a Lower Extremity Model Based on the Klein Horsman Data Set. , 2010, , .		1
67	Effect of Chain Wheel Shape on Crank Torque, Freely Chosen Pedal Rate, and Physiological Responses during Submaximal Cycling. Journal of Physiological Anthropology, 2009, 28, 261-267.	1.0	9
68	Kinematic analysis of over-determinate biomechanical systems. Computer Methods in Biomechanics and Biomedical Engineering, 2009, 12, 371-384.	0.9	139
69	Prediction of the articular eminence shape in a patient with unilateral hypoplasia of the right mandibular ramus before and after distraction osteogenesisâ€"A simulation study. Journal of Biomechanics, 2009, 42, 1049-1053.	0.9	18
70	Computational analysis of the influence of seat pan inclination and friction on muscle activity and spinal joint forces. International Journal of Industrial Ergonomics, 2009, 39, 52-57.	1.5	69
71	Using Musculoskeletal Modeling for Estimating the Most Important Muscular Output â€“ Force. Lecture Notes in Computer Science, 2009, , 62-70.	1.0	2
72	A model to compensate for soft tissue artifact during gait. Gait and Posture, 2009, 30, S5.	0.6	2

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73	Validation of a musculoskeletal model of wheelchair propulsion and its application to minimizing shoulder joint forces. Journal of Biomechanics, 2008, 41, 2981-2988.	0.9	68
74	VALIDATION OF MUSCULOSKELETAL GAIT SIMULATION FOR USE IN INVESTIGATION OF TOTAL HIP REPLACEMENT. Journal of Biomechanics, 2008, 41, S488.	0.9	16
75	Prediction of Human Posture and Movement by Musculoskeletal Optimization. , 2008, , .		0
76	Application of an Optimization-Based Method for the Kinematic Analysis of a Badminton Stroke From Motion Capture Data. , 2008, , .		0
77	Design Optimization of Airline Seats. SAE International Journal of Passenger Cars - Electronic and Electrical Systems, 2008, 1, 580-584.	0.3	8
78	Dynamic Model of a Badminton Stroke (P254). , 2008, , 563-571.		3
79	Assessing the Importance of Motion Dynamics for Ergonomic Analysis of Manual Materials Handling Tasks using the AnyBody Modeling System. , 2007, , .		16
80	COMPARISON OF A MUSCULOSKELETAL SHOULDER MODEL WITH IN-VIVO JOINT FORCES. Journal of Biomechanics, 2007, 40, S67.	0.9	8
81	A generic detailed rigid-body lumbar spine model. Journal of Biomechanics, 2007, 40, 1219-1227.	0.9	240
82	Validation of a musculo-skeletal model of the mandible and its application to mandibular distraction osteogenesis. Journal of Biomechanics, 2007, 40, 1192-1201.	0.9	84
83	Biomechanical modeling of the shoulder anatomy. , 2007, , .		1
84	Posture and Movement Prediction by Means of Musculoskeletal Optimization. , 2006, , .		4
85	Anatomy and Biomechanics of the Back Muscles in the Lumbar Spine With Reference to Biomechanical Modeling. Spine, 2006, 31, 1888-1899.	1.0	166
86	Analysis of musculoskeletal systems in the AnyBody Modeling System. Simulation Modelling Practice and Theory, 2006, 14, 1100-1111.	2.2	732
87	Musculoskeletal Modeling of Egress with the AnyBody Modeling System. , 2005, , .		8
88	Computational method for muscle-path representation in musculoskeletal models. Biological Cybernetics, 2002, 87, 199-210.	0.6	35
89	Muscle recruitment by the min/max criterion â€" a comparative numerical study. Journal of Biomechanics, 2001, 34, 409-415.	0.9	360
90	Inverse Dynamics of Musculo-Skeletal Systems Using an Efficient Min/Max Muscle Recruitment Model. , 2001, , .		7

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91	THE ISSUE OF GENERALITY IN DESIGN OPTIMIZATION SYSTEMS. Engineering Optimization, 1997, 29, 23-37.	1.5	11
92	An information management system for the formulation and solution of multidisciplinary optimization problems. , 1994, , .		0
93	A Method of â€œExactâ€•Numerical Differentiation for Error Elimination in Finite-Element-Based Semi-Analytical Shape Sensitivity Analyses*. Mechanics Based Design of Structures and Machines, 1993, 21, 1-66.	0.6	87
94	The CAOS System. , 1993, , 75-96.		4
95	Concurrent Engineering Design Optimization in a CAD Environment. , 1993, , 523-586.		14
96	Method of Error Elimination for a Class of Semi-Analytical Sensitivity Analysis Problems. , 1993, , 385-396.		1
97	Integrating Topology and Boundary Variations Design Methods in a CAD System. , 1993, , 483-499.		1
98	On CAD-integrated structural topology and design optimization. Computer Methods in Applied Mechanics and Engineering, 1991, 89, 259-279.	3.4	193
99	On Accuracy Problems for Semi-Analytical Sensitivity Analyses. Mechanics Based Design of Structures and Machines, 1989, 17, 373-384.	0.6	65
100	Computer Simulations of the Active Motion System with Musculo-skeletal Models. , 0, , .		1
101	Muscle Relaxation and Shear Force Reduction May Be Conflicting: A Computational Model of Seating. , 0, , .		4
102	Musculoskeletal Analysis of Driving Fatigue: The Influence of Seat Adjustments. Advanced Engineering Forum, 0, 10, 373-378.	0.3	12