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OpenSim: open-source software to create and analyze dynamic simulations of movement

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2220	Muscular coordination of knee motion during the terminal-swing phase of normal gait. 2007 , 40, 3314-24		47
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2218	Predicted threshold against backward balance loss following a slip in gait. 2008 , 41, 1823-31		67
2217	Muscle contributions to support and progression over a range of walking speeds. 2008 , 41, 3243-52		283
2216	Muscle function may depend on model selection in forward simulation of normal walking. 2008 , 41, 3236-42		19
2215	Minimally invasive high-speed imaging of sarcomere contractile dynamics in mice and humans. 2008 , 41, 784-8		249
2214	The Simbios National Center: Systems Biology in Motion. 2008 , 96, 1266		47
2213	Virtual musculoskeletal scenario-testing case-studies. 2008 ,		3
2212	Biomechanics of Human Movement and Muscle-Tendon Function. 213-229		
2211	Critical Loading During Serve: Modeling Stress-Induced Bone Growth in Performance Tennis Players. 2008 ,		
2210	. 2008 ,		2
2209	Dynamic Optimization of Human Stair-Climbing Motion. 2008 ,		3
2208	Virtual Body Generator for Anthropometry and Physiology Based Modeling. 2009 ,		1
2207	Posture Prediction with External Loads [A Pilot Study]. 2009 , 2, 1014-1023		8
2206	Computational Models for Neuromuscular Function. 2009 , 2, 110-135		79
2205	EMG-based neuromuscular modeling with full physiological dynamics and its comparison with modified Hill model. 2009 , 2009, 6530-3		9
2204	Improving net joint torque calculations through a two-step optimization method for estimating body segment parameters. 2009 , 131, 011007		15

2203	Computer simulation of the effects of shoe cushioning on internal and external loading during running impacts. 2009 , 12, 481-90	17
2202	MotionLab: A Matlab Toolbox for Extracting and Processing Experimental Motion Capture Data for Neuromuscular Simulations. 2009 , 110-124	7
2201	Optimal estimation of dynamically consistent kinematics and kinetics for forward dynamic simulation of gait. 2009 , 131, 031005	26
2200	Robotics-based synthesis of human motion. 2009 , 103, 211-9	68
2199	Multiscale modeling in computational biomechanics. 2009 , 28, 41-9	24
2198	Feasible stability region in the frontal plane during human gait. 2009 , 37, 2606-14	23
2197	A transformation method to estimate muscle attachments based on three bony landmarks. 2009 , 42, 331-5	18
2196	Effect of muscle model parameter scaling for isometric plantar flexion torque prediction. 2009 , 42, 2597-601	25
2195	The phenomenon of twisted growth: humeral torsion in dominant arms of high performance tennis players. 2009 , 12, 83-93	27
2194	Biomechanics of latissimus dorsi transfer for irreparable posterosuperior rotator cuff tears. 2009 , 24, 261-6	36
2193	Simulated force-length curves as a tool to enhance clinical interpretation of gait data. 2009 , 30, S76-S77	
2192	How crouch gait can dynamically lead to stiff-knee gait?. 2009 , 30, S77	
2191	Does treadmill walking modify fractal dynamics and local dynamic stability of the gait?. 2009 , 30, S77-S78	
2190	Human locomotion: Right/left symmetry in 3D trajectory of body centre of mass. 2009 , 30, S80-S81	2
2189	Modelling postural control: Validity of the inverted pendulum assumption. 2009 , 30, S81	
2188	Linking brain, mind and behavior. 2009 , 73, 95-100	231
2187	EMG-to-force estimation with full-scale physiology based muscle model. 2009 ,	12
2186	Component mode synthesis approach to estimate tibial strains in gait. 2009 , 33, 488-95	3

2185	. 2009 , 25, 634-638	14
2184	Subject-specific, multiscale simulation of electrophysiology: a software pipeline for image-based models and application examples. 2009 , 367, 2293-310	22
2183	Effects of Age and Speed on Peak Lower Extremity Joint Torques During Gait When Controlling Speed and Step Length. 2010 ,	
2182	Sensitivity of estimated muscle force in forward simulation of normal walking. 2010 , 26, 142-9	55
2181	A model of the lower limb for analysis of human movement. 2010 , 38, 269-79	528
2180	Reactive control and its operation limits in responding to a novel slip in gait. 2010 , 38, 3246-56	10
2179	A clinically applicable model to estimate the opposing muscle groups contributions to isometric and dynamic tasks. 2010 , 38, 2406-17	11
2178	Minimal formulation of joint motion for biomechanisms. 2010 , 62, 291-303	46
2177	. 2010 , 18, 523-530	8
2176	Musculoskeletal-see-through mirror: computational modeling and algorithm for whole-body muscle activity visualization in real time. 2010 , 103, 310-7	37
2175	The impact of a systematic reduction in shoe-floor friction on heel contact walking kinematics-- A gait simulation approach. 2010 , 43, 1532-9	15
2174	Contributions of muscles and passive dynamics to swing initiation over a range of walking speeds. 2010 , 43, 1450-5	26
2173	Sensitivity of dynamic simulations of gait and dynamometer experiments to hill muscle model parameters of knee flexors and extensors. 2010 , 43, 1876-83	65
2172	Muscle contributions to support and progression during single-limb stance in crouch gait. 2010 , 43, 2099-105	137
2171	Muscle mass in musculoskeletal models. 2010 , 43, 2093-8	42
2170	Knee contact force in subjects with symmetrical OA grades: differences between OA severities. 2010 , 43, 2595-600	46
2169	Individual-specific muscle maximum force estimation using ultrasound for ankle joint torque prediction using an EMG-driven Hill-type model. 2010 , 43, 2816-21	33
2168	Muscle contributions to propulsion and support during running. 2010 , 43, 2709-16	465

2167	AnimatLab: a 3D graphics environment for neuromechanical simulations. 2010 , 187, 280-8	74
2166	Toward integration of biological and physiological functions at multiple levels. 2010 , 1, 164	15
2165	Neuromechanical simulation. 2010 , 4,	5
2164	Can strength training predictably improve gait kinematics? A pilot study on the effects of hip and knee extensor strengthening on lower-extremity alignment in cerebral palsy. 2010 , 90, 269-79	93
2163	Neck Biomechanics and Multiple Wide Computer Displays. 2010 , 54, 551-555	1
2162	Stance and swing phase costs in human walking. 2010 , 7, 1329-40	144
2161	Trajectory generation for ankle rehabilitation: a biomechanical model based approach. 2010 ,	1
2160	Research on the walking gait coordinations of the lower limb rehabilitation robot. 2010 ,	10
2159	Predictive simulation of gait in rehabilitation. 2010 , 2010, 5444-7	4
2158	Comparing normal walking and compensated walking: their stability and perturbation resistance. A simulation study. 2010 , 224, 891-901	2
2157	Are cutaneous reflexes from the foot preserved in passive walking in a DGO?. 2010 , 2010, 3418-21	2
2156	Relationship between muscle forces, joint loading and utilization of elastic strain energy in equine locomotion. 2010 , 213, 3998-4009	66
2155	Modularity for sensorimotor control: evidence and a new prediction. 2010 , 42, 361-9	32
2154	Simulation-Based Design of Exoskeletons Using Musculoskeletal Analysis. 2010 ,	13
2153	Improving Performance in Neural Network Based Pulse Compression for Binary and Polyphase Codes. 2010 ,	1
2152	Muscle and joint function in human locomotion. 2010 , 12, 401-33	222
2151	From motion capture to muscle forces in the human elbow aimed at improving the ergonomics of workstations. 2010 , 5, 113-122	10
2150	Changes in hip joint muscle-tendon lengths with mode of locomotion. 2010 , 31, 279-83	21

2149	A preliminary modelling study on the equine cervical spine with inverse kinematics at walk. 2010 , 42, 516-22	15
2148	A preliminary model study of the equine back including activity of longissimus dorsi muscle. 2010 , 42, 401-6	13
2147	Simulation of Biomechanical Experiments in OpenSim. 2010 , 107-110	8
2146	Computational Cardiovascular Mechanics. 2010 ,	6
2145	Comparative Study of Three Human Muscle Models. 2010 ,	3
2144	Evaluating the Physical Realism of Character Animations Using Musculoskeletal Models. 2010 , 11-22	6
2143	A Comprehensive Methodology to Visualize Articulations for the Physiological Human. 2010 ,	1
2142	A concept for Sensor Web Enablement employment in a high-volume layered sensing simulation environment. 2010 ,	
2141	Introductory Survey to Open-Source Mobile Robot Simulation Software. 2010 ,	15
2140	A neuromusculoskeletal model of the human lower limb: towards EMG-driven actuation of multiple joints in powered orthoses. 2011 , 2011, 5975441	15
2139	Towards using musculoskeletal models for intelligent control of physically assistive robots. 2011 , 2011, 8162-5	15
2138	Application of a rat hindlimb model: a prediction of force spaces reachable through stimulation of nerve fascicles. <i>IEEE Transactions on Biomedical Engineering</i> , 2011 , 58, 3328-38	5 19
2137	Ergonomic Designs Based on Musculoskeletal Models. 2011 ,	3
2136	. 2011 ,	7
2135	A configuration dependent muscle model for the myoelectric control of a transfemoral prosthesis. 2011 , 2011, 5975480	11
2134	Cognitive cyber situational awareness using virtual worlds. 2011 ,	7
2133	Anterior Knee Pain and Patellar Instability. 2011 ,	15
2132	Short-latency stretch reflexes do not contribute to premature calf muscle activity during the stance phase of gait in spastic patients. 2011 , 92, 1833-9	8

2131	Musculoskeletal modeling of isokinetic flexio-extension of the knee: Validation by collection of EMG signals. 2011 , 33, S33-S34	
2130	An open source lower limb model: Hip joint validation. 2011 , 44, 2185-93	97
2129	A mass-length scaling law for modeling muscle strength in the lower limb. 2011 , 44, 2782-9	36
2128	Paretic muscle atrophy and non-contractile tissue content in individual muscles of the post-stroke lower extremity. 2011 , 44, 2741-6	51
2127	EMG analysis tuned for determining the timing and level of activation in different motor units. 2011 , 21, 557-65	24
2126	An EMG-driven model applied for predicting metabolic energy consumption during movement. 2011 , 21, 1074-80	10
2125	Computer simulation of nerve transfer strategies for restoring shoulder function after adult C5 and C6 root avulsion injuries. 2011 , 36, 1644-51	7
2124	Lower extremity extension force and electromyography properties as a function of knee angle and their relation to joint torques: implications for strength diagnostics. 2011 , 25, 1622-31	18
2123	Automatic tracking of medial gastrocnemius fascicle length during human locomotion. 2011 , 111, 1491-6	144
2122	Development of an OpenSim Shoulder Model for Manual Wheelchair Users With Tetraplegia. 2011 ,	2
2121	Paying the piper: the cost of Ca ²⁺ pumping during the mating call of toadfish. 2011 , 589, 5467-84	14
2120	Estimation of ligament loading and anterior tibial translation in healthy and ACL-deficient knees during gait and the influence of increasing tibial slope using EMG-driven approach. 2011 , 39, 110-21	71
2119	Evaluation of a geometry-based knee joint compared to a planar knee joint. 2011 , 27, 161-171	26
2118	An EMG-driven model to evaluate quadriceps strengthening after an isokinetic training. 2011 , 2, 131-141	13
2117	Dynamics of biomechanisms: musculotendon mass, constraints, and architecture. 2011 , 2, 158-167	
2116	Simbody: multibody dynamics for biomedical research. 2011 , 2, 241-261	127
2115	An efficient muscle fatigue model for forward and inverse dynamic analysis of human movements. 2011 , 2, 262-274	7
2114	Implicit methods for efficient musculoskeletal simulation and optimal control. 2011 , 2, 297-316	99

2113	ROAD: domestic assistant and rehabilitation robot. 2011 , 49, 1201-11	30
2112	Biomechanical effects of total knee arthroplasty component malrotation: a computational simulation. 2011 , 29, 969-75	89
2111	Effect of shoulder taping on maximum shoulder external and internal rotation range in uninjured and previously injured overhead athletes during a seated throw. 2011 , 29, 1406-11	14
2110	A computationally efficient method for assessing muscle function during human locomotion. 2011 , 27, 436-449	44
2109	Coupled hard/soft tissue simulation with contact and constraints applied to jaw/tongue/larynx dynamics. 2011 , 27, 367-390	57
2108	Whole muscle length-tension relationships are accurately modeled as scaled sarcomeres in rabbit hindlimb muscles. 2011 , 44, 109-15	89
2107	The effects of single-leg landing technique on ACL loading. 2011 , 44, 1845-51	136
2106	Modelling tendon excursions and moment arms of the finger flexors: anatomic fidelity versus function. 2011 , 44, 1967-73	18
2105	Knee and ankle joint torque-angle relationships of multi-joint leg extension. 2011 , 44, 2059-65	35
2104	Accuracy of generic musculoskeletal models in predicting the functional roles of muscles in human gait. 2011 , 44, 2096-105	77
2103	Simulation of human movement: applications using OpenSim. 2011 , 2, 186-198	40
2102	OpenSim: a musculoskeletal modeling and simulation framework for investigations and exchange. 2011 , 2, 212-232	138
2101	Modeling and synthesis of human motion within the collaborative research center 588. 2011 , 2, 275-289	
2100	Development of Cortex-to-OpenSim file transfer platform for motion capture-based dynamic simulation of biomechanical models. 2011 ,	
2099	A detailed 3D ankle-foot model for simulate dynamics of lower limb orthosis. 2011 , 2011, 8141-5	3
2098	Probabilistic modeling of selective stimulation of the human sciatic nerve with a flat Interface Nerve Electrode. 2011 , 2011, 4068-71	0
2097	Model-based estimation of active knee stiffness. 2011 , 2011, 5975474	7
2096	Muscle strength and Mass Distribution Identification toward subject-specific musculoskeletal modeling. 2011 ,	4

2095	Fibre operating lengths of human lower limb muscles during walking. 2011 , 366, 1530-9	79
2094	Implementation of an efficient muscle fatigue model in the framework of multibody systems dynamics for analysis of human movements. 2011 , 225, 359-370	3
2093	Study on Human Musculoskeletal Biomechanics Based on China Digital Human Project. 2011 , 110-116, 5131-5135	
2092	Distributed Computing for Mechanical Virtual Human. 2011 , 341-342, 695-699	
2091	Influence of stretching and warm-up on Achilles tendon material properties. 2011 , 32, 407-13	20
2090	CALIPER: A universal robot simulation framework for tendon-driven robots. 2011 ,	10
2089	Design and Development of a Novel Modular Spine Testing Apparatus. 2011 ,	
2088	Survey on Virtual Prototyping Technologies for Orthopedic Implants and Prosthesis Design. 2011 ,	
2087	Online estimation algorithm for a biaxial ankle kinematic model with configuration dependent joint axes. 2011 , 133, 021005	7
2086	Muscle tension estimation in the presence of neuromuscular impairment. 2011 , 133, 121009	1
2085	Estimation of musculoskeletal models from in situ measurements of muscle action in the rat hindlimb. 2011 , 214, 735-46	10
2084	Force-Line Driving Model for Robot. 2011 , 110-116, 3400-3404	
2083	Biomimetic design and implementation of muscle arrangement around hip joint for musculoskeletal humanoid. 2011 ,	1
2082	Comparative assessment of bone pose estimation using Point Cluster Technique and OpenSim. 2011 , 133, 114503	13
2081	A physiology-based inverse dynamic analysis of human gait using sequential convex programming: a comparative study. 2012 , 15, 1093-102	13
2080	Hybrid models of the neuromusculoskeletal system improve subject-specificity. 2012 , 226, 113-9	13
2079	Development of software for human muscle force estimation. 2012 , 15, 275-83	7
2078	Potential of the pseudo-inverse method as a constrained static optimization for musculo-tendon forces prediction. 2012 , 134, 064503	2

2077	Thin-filament length correlates with fiber type in human skeletal muscle. 2012 , 302, C555-65	31
2076	Mechanics of the human hamstring muscles during sprinting. 2012 , 44, 647-58	188
2075	. 2012 ,	3
2074	A task description model for robotic rehabilitation. 2012 , 2012, 3086-9	5
2073	Sit-to-Stand movement assistance using an actuated knee joint orthosis. 2012 ,	20
2072	Muscular strategy shift in human running: dependence of running speed on hip and ankle muscle performance. 2012 , 215, 1944-56	270
2071	Forelimb muscle activity during equine locomotion. 2012 , 215, 2980-91	33
2070	Examination of a muscular activity estimation model using a Bayesian network for the influence of an ankle foot orthosis. 2012 , 2012, 6446-50	
2069	On the ascent: the soleus operating length is conserved to the ascending limb of the force-length curve across gait mechanics in humans. 2012 , 215, 3539-51	64
2068	Proprioceptivity and upper-extremity dynamics in robot-assisted reaching movement. 2012 ,	8
2067	On validation of multibody musculoskeletal models. 2012 , 226, 82-94	89
2066	Estimated Muscle Loads During Squat Exercise in Microgravity Conditions. 2012 ,	1
2065	Simbios: an NIH national center for physics-based simulation of biological structures. 2012 , 19, 186-9	6
2064	Advanced musculoskeletal simulation as an ergonomic design method. 2012 , 41, 6107-6111	7
2063	Dynamic Simulation of Upper Limb Movement in Two Software Platforms. 2012 ,	
2062	Development of a surrogate biomodel for the investigation of clubfoot bracing. 2012 , 32, e47-52	6
2061	On the organizing role of nonmuscular forces during performance of a giant circle in gymnastics. 2012 , 28, 57-62	8
2060	Knee and elbow 3D strength surfaces: peak torque-angle-velocity relationships. 2012 , 28, 726-37	29

2059	Long-term use of high-heeled shoes alters the neuromechanics of human walking. 2012 , 112, 1054-8	67
2058	Decoding arm and hand movements across layers of the macaque frontal cortices. 2012 , 2012, 1757-60	3
2057	Pectoralis Major Transfer for Subscapularis Deficiency: A Computational Study. 2012 , 4, 25-29	4
2056	Brief communication: could Kadanuumuu (KSD-VP-1/1) and Lucy (AL 288-1) have walked together comfortably?. 2012 , 149, 616-21	5
2055	Multifractal fluctuations in joint angles during infant spontaneous kicking reveal multiplicativity-driven coordination. 2012 , 45, 1201-1219	45
2054	Locomotion Mechanics in Obese Adults and Children. 2012 , 1, 152-159	21
2053	Lower limb muscle moments and power during recovery from forward loss of balance in male and female single and multiple steppers. 2012 , 27, 1031-7	28
2052	Defining Virtual Worlds Usability Heuristics. 2012 ,	6
2051	Influence of origins and insertions of muscles on artificial hip joint dislocation. 2012 ,	
2050	Exploring possibilities for real-time muscle dynamics state estimation from EMG signals. 2012 ,	2
2049	Muscle force transmission to operational space accelerations during elite golf swings. 2012 ,	5
2048	The development of lower limb musculoskeletal models with clinical relevance is dependent upon the fidelity of the mathematical description of the lower limb. Part 2: Patient-specific geometry. 2012 , 226, 133-45	17
2047	Estimates of muscle function in human gait depend on how foot-ground contact is modelled. 2012 , 15, 657-68	47
2046	Developing an ankle-foot muscular model using Bayesian estimation for the influence of an ankle foot orthosis on muscles. 2012 ,	1
2045	Sensitivity analysis of an energetic muscle model applied at whole body level in recumbent pedalling. 2012 , 15, 527-38	4
2044	Similar muscles contribute to horizontal and vertical acceleration of center of mass in forward and backward walking: implications for neural control. 2012 , 107, 3385-96	38
2043	The jump shot - a biomechanical analysis focused on lateral ankle ligaments. 2012 , 45, 202-6	11
2042	Adaptive recovery responses to repeated forward loss of balance in older adults. 2012 , 45, 183-7	39

2041	Moving muscle points provide accurate curved muscle paths in a model of the cervical spine. 2012 , 45, 400-4	16
2040	Estimation of musculotendon kinematics in large musculoskeletal models using multidimensional B-splines. 2012 , 45, 595-601	78
2039	Direct comparison of measured and calculated total knee replacement force envelopes during walking in the presence of normal and abnormal gait patterns. 2012 , 45, 990-6	31
2038	Optimizing whole-body kinematics to minimize valgus knee loading during sidestepping: implications for ACL injury risk. 2012 , 45, 1491-7	93
2037	Simulation of lower limb axial arterial length change during locomotion. 2012 , 45, 1485-90	9
2036	A platform for dynamic simulation and control of movement based on OpenSim and MATLAB. 2012 , 45, 1517-21	40
2035	Computational biodynamics of human knee joint in gait: from muscle forces to cartilage stresses. 2012 , 45, 2149-56	92
2034	Contributions of muscles to mediolateral ground reaction force over a range of walking speeds. 2012 , 45, 2438-43	66
2033	Simulation of the effects of different pilot helmets on neck loading during air combat. 2012 , 45, 2362-7	20
2032	How much muscle strength is required to walk in a crouch gait?. 2012 , 45, 2564-9	84
2031	Muscle-tendon units provide limited contributions to the passive stiffness of the index finger metacarpophalangeal joint. 2012 , 45, 2531-8	34
2030	The inaccuracy of surface-measured model-derived tibiofemoral kinematics. 2012 , 45, 2719-23	51
2029	Femoral loads during gait in a patient with massive skeletal reconstruction. 2012 , 27, 273-80	31
2028	Whole body kinematics and knee moments that occur during an overhead catch and landing task in sport. 2012 , 27, 466-74	51
2027	The effects of grade and speed on leg muscle activations during walking. 2012 , 35, 143-7	98
2026	Estimation of requirements for an upper extremity support using inverse dynamics and motion analysis. 2012 , 36, S1-S2	1
2025	Upper extremity motion in adults with cerebral palsy. 2012 , 36, S2	
2024	New method for detection of shoulder movement during daily activity. 2012 , 36, S2-S3	

2023	Similar muscles contribute to horizontal and vertical acceleration of the center of mass in forward and backward walking. 2012 , 36, S20-S21	
2022	Joint moments in children with cerebral palsy based on biomechanical models. 2012 , 36, S21	1
2021	Estimation of co-contraction by computational musculoskeletal modeling is enhanced by including experimental EMG recordings. 2012 , 36, S63-S64	1
2020	Compressive tibiofemoral force during crouch gait. 2012 , 35, 556-60	201
2019	Quantifying individual muscle contribution to three-dimensional reaching tasks. 2012 , 35, 579-84	10
2018	How robust is human gait to muscle weakness?. 2012 , 36, 113-9	164
2017	Potential of lower-limb muscles to accelerate the body during cerebral palsy gait. 2012 , 36, 194-200	21
2016	Integrating HLA and Service-Oriented Architecture in a Simulation Framework. 2012 ,	3
2015	Comparison of different methods for estimating muscle forces in human movement. 2012 , 226, 103-12	62
2014	ArtiSynth: A Fast Interactive Biomechanical Modeling Toolkit Combining Multibody and Finite Element Simulation. 2012 , 355-394	87
2013	Design of Open Source Framework for Traffic and Travel Simulation. 2012 , 2291, 44-52	7
2012	Using Optimal Control Methods to Generate Human Walking Motions. 2012 , 197-207	6
2011	Comparison of electromyography and joint moment as indicators of co-contraction. 2012 , 22, 607-11	32
2010	Crouched posture maximizes ground reaction forces generated by muscles. 2012 , 36, 405-8	14
2009	Passive and dynamic shoulder rotation range in uninjured and previously injured overhead throwing athletes and the effect of shoulder taping. 2012 , 4, 111-6	16
2008	Altered hip muscle forces during gait in people with patellofemoral osteoarthritis. 2012 , 20, 1243-9	36
2007	An intrinsically compliant robotic orthosis for treadmill training. 2012 , 34, 1448-53	46
2006	Modeling the human knee for assistive technologies. <i>IEEE Transactions on Biomedical Engineering</i> , 2012 , 59, 2642-9	5 42

2005	Biomechanical Measurement Methods to Analyze the Mechanisms of Sport Injuries. 2012 , 19-26	
2004	An optimized model for estimation of muscle contribution and human joint torques from sEMG information. 2012 , 2012, 3364-7	4
2003	Gait analysis using wearable sensors. 2012 , 12, 2255-83	615
2002	Motion in Games. 2012 ,	
2001	Subject-specific tendon-aponeurosis definition in Hill-type model predicts higher muscle forces in dynamic tasks. 2012 , 7, e44406	16
2000	EMG-driven forward-dynamic estimation of muscle force and joint moment about multiple degrees of freedom in the human lower extremity. 2012 , 7, e52618	169
1999	Probabilistic modeling of selective stimulation of the human sciatic nerve with a flat interface nerve electrode. 2012 , 33, 179-90	33
1998	The influence of modeling hypothesis and experimental methodologies in the accuracy of muscle force estimation using EMG-driven models. 2012 , 28, 21-36	18
1997	Prediction of hip contact forces and muscle activations during walking at different speeds. 2012 , 28, 157-168	51
1996	Method for determining musculotendon parameters in subject-specific musculoskeletal models of children developed from MRI data. 2012 , 28, 143-156	24
1995	Case reports: the influence of selective voluntary motor control on gait after hamstring lengthening surgery. 2012 , 470, 1320-6	16
1994	A numerical simulation approach to studying anterior cruciate ligament strains and internal forces among young recreational women performing valgus inducing stop-jump activities. 2012 , 40, 1679-91	19
1993	Modeling the benefits of an artificial gravity countermeasure coupled with exercise and vibration. 2012 , 70, 43-51	3
1992	A Wavelet-Based Method to Predict Muscle Forces From Surface Electromyography Signals in Weightlifting. 2012 , 9, 48-58	22
1991	Quantitative metrics of spinal cord injury recovery in the rat using motion capture, electromyography and ground reaction force measurement. 2012 , 206, 65-72	14
1990	The effect of a subject-specific AFO on the muscle activation during gait of a test subject suffering from a hemiparetic anterior muscle insufficiency in the lower leg. 2012 , 5,	78
1989	Grand challenge competition to predict in vivo knee loads. 2012 , 30, 503-13	334
1988	A musculoskeletal model for the lumbar spine. 2012 , 11, 19-34	177

1987	Changes in the activation and function of the ankle plantar flexor muscles due to gait retraining in chronic stroke survivors. 2013 , 10, 12	30
1986	Biomechanical contributions of posterior deltoid and teres minor in the context of axillary nerve injury: a computational study. 2013 , 38, 241-9	21
1985	The effect of foot strike pattern on achilles tendon load during running. 2013 , 41, 1758-66	84
1984	Estimation of lower limbs angular positions using Kalman filter and genetic algorithm. 2013 ,	3
1983	Anticipatory effects on anterior cruciate ligament loading during sidestep cutting. 2013 , 28, 655-63	63
1982	Finite element analysis of the hip and spine based on quantitative computed tomography. 2013 , 11, 156-62	14
1981	Consistency among musculoskeletal models: caveat utilitor. 2013 , 41, 1787-99	27
1980	Biomedical Imaging and Computational Modeling in Biomechanics. 2013 ,	0
1979	A real-time system for biomechanical analysis of human movement and muscle function. 2013 , 51, 1069-77	186
1978	A three-dimensional musculoskeletal model of the chimpanzee (<i>Pan troglodytes</i>) pelvis and hind limb. 2013 , 216, 3709-23	37
1977	Examining anticipatory turn signaling in typically developing 4- and 5-year-old children for applications in active orthotic devices. 2013 , 37, 349-53	2
1976	Explanatory analysis of the manner in which an instructor adaptively organizes skilled motion teaching process. 2013 , 43, 430-438	
1975	Biomechanical modeling of abdominal muscle system considering tendinous intersection and abdominal cavity's compressibility. 2013 ,	
1974	Muscle contributions to vertical and fore-aft accelerations are altered in subjects with crouch gait. 2013 , 38, 86-91	47
1973	Understanding compensatory strategies for muscle weakness during gait by simulating activation deficits seen post-stroke. 2013 , 38, 270-5	22
1972	Computational tools for calculating alternative muscle force patterns during motion: a comparison of possible solutions. 2013 , 46, 2097-100	17
1971	Intelligent Computer Graphics 2012. 2013 ,	2
1970	Foot kinematics and loading of professional athletes in American football-specific tasks. 2013 , 38, 563-9	18

1969	Voluntary EMG-to-force estimation with a multi-scale physiological muscle model. 2013 , 12, 86	27
1968	Simulation of normal and pathological gaits using a fusion knowledge strategy. 2013 , 10, 73	5
1967	On the modeling of the intervertebral joint in multibody models for the spine. 2013 , 30, 413-432	17
1966	Muscle force distribution for adaptive control of a humanoid robot arm with redundant bi-articular and mono-articular muscle mechanism. 2013 , 18, 41-51	3
1965	Subject-specific knee joint geometry improves predictions of medial tibiofemoral contact forces. 2013 , 46, 2778-86	170
1964	Utilizing movement synergies to improve decoding performance for a brain machine interface. 2013 , 2013, 289-92	12
1963	Investigation of the subjective force perception based on the estimation of the muscle activities during a steering operation. 2013 ,	5
1962	Evaluation of feedforward and feedback contributions to hand stiffness and variability in multijoint arm control. 2013 , 21, 634-47	12
1961	Experimentally-based optimization of contact parameters in dynamics simulation of humanoid robots. 2013 ,	3
1960	Musculoskeletal shoulder models: a technical review and proposals for research foci. 2013 , 227, 1041-57	23
1959	Estimating the instantaneous wrist flexion angle from multi-channel surface EMG of forearm muscles. 2013 ,	3
1958	The natural shock absorption of the leg spring. 2013 , 46, 129-36	10
1957	Patient-Specific Modelling in Orthopedics: From Image to Surgery. 2013 , 109-129	5
1956	Muscle gearing during isotonic and isokinetic movements in the ankle plantarflexors. 2013 , 113, 437-47	41
1955	A musculoskeletal modeling approach for estimating anterior cruciate ligament strains and knee anterior-posterior shear forces in stop-jumps performed by young recreational female athletes. 2013 , 41, 338-48	19
1954	Strictly enforcing the rigid body constraint improves the performance of a functional model calibration method: Results from a mechanical analog of the leg. 2013 , 38, S16-S17	1
1953	Muscle contributions to center of mass acceleration adapt to asymmetric walking in healthy subjects. 2013 , 38, 739-44	13
1952	A rolling constraint reproduces ground reaction forces and moments in dynamic simulations of walking, running, and crouch gait. 2013 , 46, 1772-6	22

1951	A model of muscle spasticity in opensim. 2013 , 38, S16	4
1950	Gait characteristics and lower limb muscle strength in women with early and established knee osteoarthritis. 2013 , 28, 40-7	46
1949	Application of a falsification strategy to a musculoskeletal model of the lower limb and accuracy of the predicted hip contact force vector. 2013 , 46, 1193-200	34
1948	Muscle contributions to fore-aft and vertical body mass center accelerations over a range of running speeds. 2013 , 46, 780-7	169
1947	A novel framework for virtual prototyping of rehabilitation exoskeletons. 2013 , 2013, 6650382	11
1946	Phenomenological models of the dynamics of muscle during isotonic shortening. 2013 , 46, 2419-25	8
1945	Hamstrings and quadriceps muscle contributions to energy generation and dissipation at the knee joint during stance, swing and flight phases of level running. 2013 , 20, 100-5	11
1944	Influence of weak hip abductor muscles on joint contact forces during normal walking: probabilistic modeling analysis. 2013 , 46, 2186-93	57
1943	Gluteus maximus and soleus compensate for simulated quadriceps atrophy and activation failure during walking. 2013 , 46, 2165-72	35
1942	Improvement of upper extremity kinematics estimation using a subject-specific forearm model implemented in a kinematic chain. 2013 , 46, 1053-9	13
1941	Consideration of equilibrium equations at the hip joint alongside those at the knee and ankle joints has mixed effects on knee joint response during gait. 2013 , 46, 619-24	22
1940	Modeling and Optimization of Human Walking. 2013 , 31-42	6
1939	The use of ultrasound to study muscle-tendon function in human posture and locomotion. 2013 , 37, 305-12	73
1938	Force enhancement and force depression in a modified muscle model used for muscle activation prediction. 2013 , 23, 759-65	6
1937	Relaxed individual control of skeletal muscle forces via physical human-robot interaction. 2013 , 30, 77-99	9
1936	Contributions of the soleus and gastrocnemius muscles to the anterior cruciate ligament loading during single-leg landing. 2013 , 46, 1913-20	84
1935	Toward Movement Restoration of Knee Joint Using Robust Control of Powered Orthosis. 2013 , 21, 2156-2168	20
1934	Stabilisation of walking by intrinsic muscle properties revealed in a three-dimensional muscle-driven simulation. 2013 , 16, 451-62	43

1933	Customized Modeling and Simulations for the Control of FES-Assisted Walking of Individuals with Hemiplegia. 2013 , 401-420	0
1932	Trunk muscle action compensates for reduced quadriceps force during walking after total knee arthroplasty. 2013 , 38, 79-85	35
1931	Soft wearable motion sensing suit for lower limb biomechanics measurements. 2013 ,	67
1930	Stretch and activation of the human biarticular hamstrings across a range of running speeds. 2013 , 113, 2813-28	35
1929	Proprioceptive accuracy in women with early and established knee osteoarthritis and its relation to functional ability, postural control, and muscle strength. 2013 , 32, 1365-74	34
1928	A lightweight soft exosuit for gait assistance. 2013 ,	148
1927	WHAT IS A MOMENT ARM? CALCULATING MUSCLE EFFECTIVENESS IN BIOMECHANICAL MODELS USING GENERALIZED COORDINATES. 2013 , 2013,	45
1926	Humans, geometric similarity and the Froude number: is "reasonably close" really close enough?. 2013 , 2, 111-20	17
1925	Biomechanical simulation in the analysis of aimed movements. 2013 ,	7
1924	Biomechanical Simulation of Achilles Tendon Strains during Hurdling. 2013 , 647, 462-465	0
1923	Dual-joint modeling for estimation of total knee replacement contact forces during locomotion. 2013 , 135, 021013	33
1922	Robust identification of three-dimensional thumb and index finger kinematics with a minimal set of markers. 2013 , 135, 91002	19
1921	Subject-specific analysis of joint contact mechanics: application to the study of osteoarthritis and surgical planning. 2013 , 135, 021003	47
1920	An in vitro approach to the evaluation of foot-ankle kinematics: performance evaluation of a custom-built gait simulator. 2013 , 227, 955-67	21
1919	Patellofemoral joint loading during stair ambulation in people with patellofemoral osteoarthritis. 2013 , 65, 2059-69	50
1918	Fine tuning total knee replacement contact force prediction algorithms using blinded model validation. 2013 , 135, 021015	16
1917	Subtalar arthrodesis alignment: the effect on ankle biomechanics. 2013 , 34, 244-50	16
1916	Flexing computational muscle: modeling and simulation of musculotendon dynamics. 2013 , 135, 021005	268

1915	Detection of incoherent joint state due to inaccurate bone motion estimation. 2013 , 16, 165-74	4
1914	Parallel Driving for the Design of Humanoid Robot. 2013 , 680, 449-453	
1913	Converging Clinical and Engineering Research on Neurorehabilitation. 2013 ,	8
1912	Assisted Research of the Robots Kinematics and Dynamics Behavior with LabVIEW Instrumentation. 2013 , 332, 276-285	3
1911	Dynamic Research of a Novel Exoskeleton with Level Walking. 2013 , 718-729	2
1910	ESTIMATION OF MUSCLE FORCE DERIVED FROM IN VIVO MR ELASTOGRAPHY TESTS: A PRELIMINARY STUDY. 2013 , 16, 1350015	6
1909	Virtual Modelling of a Real Exoskeleton Constrained to a Human Musculoskeletal Model. 2013 , 96-107	17
1908	Evaluation of factors affecting tibial bone strain after unicompartmental knee replacement. 2013 , 31, 821-8	42
1907	Electro-hydraulic servo system for Human Lower-limb Exoskeleton based on sliding mode variable structure control. 2013 ,	5
1906	Socio-economic impact of medical lower-limb Exoskeletons. 2013 ,	8
1905	Hip abduction can prevent posterior edge loading of hip replacements. 2013 , 31, 1172-9	44
1904	Modeling open-loop stability of a human arm driven by a functional electrical stimulation neuroprosthesis. 2013 , 2013, 3598-601	4
1903	Integrating neural spiking and LFP activity to decode kinematics of the arm and hand during unconstrained reach to grasp movements. 2013 ,	
1902	On the potential of lower limb muscles to accelerate the body's centre of mass during walking. 2013 , 16, 1013-21	10
1901	Multijoint upper limb torque estimation from sEMG measurements. 2013 , 2013, 7233-6	4
1900	From block clearance to sprint running: characteristics underlying an effective transition. 2013 , 31, 137-49	57
1899	A dynamically consistent model of a motorized ankle-foot orthosis. 2013 ,	1
1898	Modelling muscle spindle dynamics for a proprioceptive prosthesis. 2013 , 2013, 1923-6	1

1897	QUANTIFYING THE EFFECT OF PLYOMETRIC HOPPING EXERCISES ON THE MUSCULOSKELETAL SYSTEM: CONTRIBUTIONS OF THE LOWER LIMB JOINT MOMENTS OF FORCE TO GROUND REACTION FORCES IN HOPPING EXERCISE. 2013 , 13, 1350027	0
1896	Effects of age-related differences in femoral loading and bone mineral density on strains in the proximal femur during controlled walking. 2013 , 29, 505-16	17
1895	Dynamic Simulation of Muscle Loading During ARED Squat Exercise on the International Space Station. 2013 ,	1
1894	Tibio-Femoral Contact Force During Gait: An Iterative Method Using EMG-Constrained Multi-Body Simulation and Finite Element Analysis. 2013 ,	
1893	Towards Biomechanical Digital Human Modeling of Elderly People for Simulations in Virtual Product Development. 2013 , 57, 813-817	2
1892	Motion Data-Driven Unsafe Pose Identification through Biomechanical Analysis. 2013 ,	3
1891	Force Perception Model in a Steering Operation Based on the Estimation of Muscle Activity. 2013 , 79, 4917-4925	
1890	Muscle Synergy Constraints Improve Prediction of Knee Contact Force During Gait. 2013 ,	
1889	An Informational Algorithm as the Basis for Perception-Action Control of the Instantaneous Axes of the Knee. 2013 , 3, 127	5
1888	A musculoskeletal model of human locomotion driven by a low dimensional set of impulsive excitation primitives. 2013 , 7, 79	82
1887	The number and choice of muscles impact the results of muscle synergy analyses. 2013 , 7, 105	136
1886	Learned parametrized dynamic movement primitives with shared synergies for controlling robotic and musculoskeletal systems. 2013 , 7, 138	39
1885	Application of computational lower extremity model to investigate different muscle activities and joint force patterns in knee osteoarthritis patients during walking. 2013 , 2013, 314280	15
1884	The application of computer musculoskeletal modeling and simulation to investigate compressive tibiofemoral force and muscle functions in obese children. 2013 , 2013, 305434	6
1883	Design of human surrogates for the study of biomechanical injury: a review. 2013 , 41, 51-89	12
1882	Translational Methods for Non-Invasive Electrical Stimulation to Facilitate Gait Rehabilitation Following Stroke - The Future Directions. 2013 , 1, 22-33	6
1881	Are subject-specific musculoskeletal models robust to the uncertainties in parameter identification?. 2014 , 9, e112625	116
1880	Improving Inverse Dynamics Accuracy in a Planar Walking Model Based on Stable Reference Point. 2014 , 2014, 1-9	

1879	Task constraints and minimization of muscle effort result in a small number of muscle synergies during gait. 2014 , 8, 115	37
1878	A novel computational framework for deducing muscle synergies from experimental joint moments. 2014 , 8, 153	13
1877	The Contribution of Pre-impact Spine Posture on Human Body Model Response in Whole-body Side Impact. 2014 ,	1
1876	. 2014 ,	6
1875	A computational biomechanical model of the human ankle for development of an ankle rehabilitation robot. 2014 ,	5
1874	Simulation of a powered ankle prosthesis with dynamic joint alignment. 2014 , 2014, 1618-21	8
1873	Aging of running shoes and its effect on mechanical and biomechanical variables: implications for runners. 2014 , 32, 1013-22	14
1872	Clinical Applications of Biomechanical and Knowledge-Based Models. 2014 , 103-142	
1871	Encouraging the Application of Virtual Environments for Space Training. 2014 ,	
1870	Optimal human-inspired ankle stiffness regulation for humanoid balancing control. 2014 ,	5
1869	Dynamic research and analyses of a novel exoskeleton walking with humanoid gaits. 2014 , 228, 1501-1511	9
1868	Biomechanics of Femoroacetabular Impingement. 2014 , 1-14	
1867	sEMG-based neural-musculoskeletal model for human-robot interface. 2014 ,	
1866	Finite element model of the knee for investigation of injury mechanisms: development and validation. 2014 , 136, 011002	76
1865	Subject-specific finite element modeling of the tibiofemoral joint based on CT, magnetic resonance imaging and dynamic stereo-radiography data in vivo. 2014 , 136,	21
1864	Co-simulation of neuromuscular dynamics and knee mechanics during human walking. 2014 , 136, 021033	61
1863	Active volumetric musculoskeletal systems. 2014 , 33, 1-9	29
1862	Changes in predicted muscle coordination with subject-specific muscle parameters for individuals after stroke. 2014 , 2014, 321747	8

1861	Muscle synergies may improve optimization prediction of knee contact forces during walking. 2014 , 136, 021031	58
1860	Virtual Human Behavioural Profile Extraction Using Kinect Based Motion Tracking. 2014 ,	3
1859	Tools for simulating humanoid robot dynamics: A survey based on user feedback. 2014 ,	45
1858	. 2014 ,	
1857	An approach and implementation for coupling neurocognitive and neuromechanical models. 2014 ,	1
1856	Master Motor Map (MMM) Framework and toolkit for capturing, representing, and reproducing human motion on humanoid robots. 2014 ,	32
1855	. 2014 ,	
1854	OpenEyeSim - A platform for biomechanical modeling of oculomotor control. 2014 ,	6
1853	Using Dynamic Musculoskeletal Simulation to Evaluate Altered Muscle Properties in Cerebral Palsy. 2014 ,	1
1852	RFID Tracking to Study Clinical Activity in the Operating Room. 2014 ,	1
1851	Unloading muscle activation enhances force perception. 2014 ,	1
1850	Multi-muscle FES control of the human arm for interaction tasksStabilizing with muscle co-contraction and postural adjustment: A simulation study. 2014 ,	2
1849	MovExp: A Versatile Visualization Tool for Human-Computer Interaction Studies with 3D Performance and Biomechanical Data. 2014 , 20, 2359-68	10
1848	Dynamic Biomechanical Analysis for Construction Tasks Using Motion Data from Vision-Based Motion Capture Approaches. 2014 ,	3
1847	Development of femoral bone fracture model simulating muscular contraction force by pneumatic rubber actuator. 2014 , 2014, 6872-5	1
1846	Novel computational approaches characterizing knee physiotherapy. 2014 , 1, 55-66	3
1845	Validation of Hill-type muscle models in relation to neuromuscular recruitment and force-velocity properties: predicting patterns of in vivo muscle force. 2014 , 54, 1072-83	27
1844	Musculoskeletal modelling deconstructs the paradoxical effects of elastic ankle exoskeletons on plantar-flexor mechanics and energetics during hopping. 2014 , 217, 4018-28	34

1843	Manually controlled instrumented spasticity assessments: a systematic review of psychometric properties. 2014 , 56, 932-50	29
1842	Toward a Unified Framework for EMG Signals Processing and Controlling an Exoskeleton. 2014 ,	3
1841	The Model of the Human Hand. 2014 , 123-173	2
1840	A new method for estimating subject-specific muscle-tendon parameters of the knee joint actuators: a simulation study. 2014 , 30, 969-87	17
1839	Hip contact force in presence of aberrant bone geometry during normal and pathological gait. 2014 , 32, 1406-15	23
1838	The relation between spasticity and muscle behavior during the swing phase of gait in children with cerebral palsy. 2014 , 35, 3354-64	32
1837	Primitive based biomechanical simulations predict feedback gating. 2014 ,	
1836	Impact of knee modeling approach on indicators and classification of anterior cruciate ligament injury risk. 2014 , 46, 1269-76	38
1835	A weighted cost function to deal with the muscle force sharing problem in injured subjects: A single case study. 2014 , 228, 241-251	2
1834	Pneumatically powered robotic exercise device to induce a specific force profile in target lower extremity muscles. 2014 , 32, 1281-1299	0
1833	Is motion capture-based biomechanical simulation valid for HCI studies?. 2014 ,	14
1832	Differences in Plantar Flexor Fascicle Length and Pennation Angle between Healthy and Poststroke Individuals and Implications for Poststroke Plantar Flexor Force Contributions. 2014 , 2014, 919486	8
1831	Locomotion control for many-muscle humanoids. 2014 , 33, 1-11	54
1830	An in-vivo lateral ankle ligament strain behavior assessment technique for potential use in robot-assisted therapy. 2014 , 2014, 4022-5	
1829	Is midsole thickness a key parameter for the running pattern?. 2014 , 40, 58-63	45
1828	Steeper posterior tibial slope markedly increases ACL force in both active gait and passive knee joint under compression. 2014 , 47, 1353-9	63
1827	Arm swing in human walking: what is their drive?. 2014 , 40, 321-6	35
1826	Compensatory strategies during walking in response to excessive muscle co-contraction at the ankle joint. 2014 , 39, 926-32	10

1825	Effects of gait speed on stability of walking revealed by simulated response to tripping perturbation. 2014 , 39, 534-9	4
1824	Dominance effect on scapula 3-dimensional posture and kinematics in healthy male and female populations. 2014 , 23, 873-81	23
1823	Effects of obesity on lower extremity muscle function during walking at two speeds. 2014 , 39, 978-84	53
1822	Estimating joint kinematics of a whole body chain model with closed-loop constraints. 2014 , 31, 433-449	27
1821	A practical framework for generating volumetric meshes of subject-specific soft tissue. 2014 , 30, 127-137	2
1820	Human lower extremity joint moment prediction: A wavelet neural network approach. 2014 , 41, 4422-4433	69
1819	Dynamic simulation of tibialis posterior tendon transfer in the treatment of drop-foot. 2014 , 34, 132-138	2
1818	Computational sensitivity analysis to identify muscles that can mechanically contribute to shoulder deformity following brachial plexus birth palsy. 2014 , 39, 303-11	19
1817	Does an unloader brace reduce knee loading in normally aligned knees?. 2014 , 472, 915-22	14
1816	Changes in tibiofemoral forces due to variations in muscle activity during walking. 2014 , 32, 769-76	79
1815	Biomechanics of Musculoskeletal System and Its Biomimetic Implications: A Review. 2014 , 11, 159-175	17
1814	Partitioning of knee joint internal forces in gait is dictated by the knee adduction angle and not by the knee adduction moment. 2014 , 47, 1696-703	43
1813	Powered orthosis for lower limb movements assistance and rehabilitation. 2014 , 26, 245-253	35
1812	Prediction of ground reaction forces and moments during various activities of daily living. 2014 , 47, 2321-9	93
1811	The effect of perturbing body segment parameters on calculated joint moments and muscle forces during gait. 2014 , 47, 596-601	21
1810	Contributions of individual muscles to the sagittal- and frontal-plane angular accelerations of the trunk in walking. 2014 , 47, 2263-8	24
1809	Evaluation of a subject-specific finite-element model of the equine metacarpophalangeal joint under physiological load. 2014 , 47, 65-73	65
1808	Biomechanical ToolKit: Open-source framework to visualize and process biomechanical data. 2014 , 114, 80-7	122

1807	Variables during swing associated with decreased impact peak and loading rate in running. 2014 , 47, 32-8	19
1806	. 2014 ,	5
1805	Biomedical Simulation. 2014 ,	2
1804	Hybrid neuromusculoskeletal modeling to best track joint moments using a balance between muscle excitations derived from electromyograms and optimization. 2014 , 47, 3613-21	105
1803	Gait analysis in chronic heart failure: The calf as a locus of impaired walking capacity. 2014 , 47, 3719-25	10
1802	Differences in muscle activity between natural forefoot and rearfoot strikers during running. 2014 , 47, 3593-7	48
1801	Femoral shaft strains during daily activities: Implications for atypical femoral fractures. 2014 , 29, 869-76	60
1800	Evaluation of knee joint muscle forces and tissue stresses-strains during gait in severe OA versus normal subjects. 2014 , 32, 69-78	45
1799	3D Multiscale Physiological Human. 2014 ,	3
1798	Position and velocity cursor mappings contribute to distinct muscle forces in simulated isometric and movement reaching. 2014 ,	2
1797	Empirical evaluation of gastrocnemius and soleus function during walking. 2014 , 47, 2969-74	21
1796	Integrating dynamic stereo-radiography and surface-based motion data for subject-specific musculoskeletal dynamic modeling. 2014 , 47, 3217-21	14
1795	A comparison of optimisation methods and knee joint degrees of freedom on muscle force predictions during single-leg hop landings. 2014 , 47, 2863-8	34
1794	The influence of hip abduction and rotation on hip contact forces. 2014 , 39, S21-S22	
1793	Measuring femoral neck anteversionValidation of a technique based on 3D freehand ultrasound. 2014 , 39, S53-S54	1
1792	What does it take to walk normally with high femoral neck anteversion?A case study. 2014 , 39, S54	
1791	A preliminary study on the differences in male and female muscle force distribution patterns during squatting and lunging maneuvers. 2014 , 52, 57-65	6
1790	A comparison of slow, uphill and fast, level walking on lower extremity biomechanics and tibiofemoral joint loading in obese and nonobese adults. 2014 , 32, 324-30	38

1789	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. 2014 , 13, 111	19
1788	Eulerian solids for soft tissue and more. 2014 ,	2
1787	Integrating a multi-segment foot model in simulation of gait to better understand plantar pressure distribution. 2014 , 39, S66-S67	
1786	Does adiposity affect muscle function during walking in children?. 2014 , 47, 2975-82	10
1785	Subject-specific musculoskeletal model of the lower limb in a lying and standing position. 2014 , 17, 480-7	16
1784	Gestikulieren mit Stil. 2014 , 37, 449-453	1
1783	Interdependence of torque, joint angle, angular velocity and muscle action during human multi-joint leg extension. 2014 , 114, 1691-702	24
1782	Pelvic incidence-lumbar lordosis mismatch results in increased segmental joint loads in the unfused and fused lumbar spine. 2014 , 23, 1384-93	60
1781	Muscle contributions to recovery from forward loss of balance by stepping. 2014 , 47, 667-74	23
1780	EMGD-FE: an open source graphical user interface for estimating isometric muscle forces in the lower limb using an EMG-driven model. 2014 , 13, 37	10
1779	Musculoskeletal modelling of muscle activation and applied external forces for the correction of scoliosis. 2014 , 11, 52	10
1778	Altering length and velocity feedback during a neuro-musculoskeletal simulation of normal gait contributes to hemiparetic gait characteristics. 2014 , 11, 78	19
1777	Elevated gastrocnemius forces compensate for decreased hamstrings forces during the weight-acceptance phase of single-leg jump landing: implications for anterior cruciate ligament injury risk. 2014 , 47, 3295-302	64
1776	The contribution of knee extensor and plantarflexor hyperexcitability to gait impairments after stroke: A simulation study. 2014 , 39, S32	
1775	Reduced hamstring strength increases anterior cruciate ligament loading during anticipated sidestep cutting. 2014 , 29, 752-9	48
1774	Role of subject-specific musculoskeletal loading on the prediction of bone density distribution in the proximal femur. 2014 , 30, 244-52	29
1773	Feed forward artificial neural network to predict contact force at medial knee joint: Application to gait modification. 2014 , 139, 114-129	20
1772	Statistical method for prediction of gait kinematics with Gaussian process regression. 2014 , 47, 186-92	61

1771	Selective lateral muscle activation in moderate medial knee osteoarthritis subjects does not unload medial knee condyle. 2014 , 47, 1409-15		37
1770	How gravity and muscle action control mediolateral center of mass excursion during slow walking: a simulation study. 2014 , 39, 91-7		24
1769	Reverse total shoulder arthroplasty component center of rotation affects muscle function. 2014 , 23, 1128-35		41
1768	Evaluation of a morphing based method to estimate muscle attachment sites of the lower extremity. 2014 , 47, 1144-50		35
1767	Healthy older adults have insufficient hip range of motion and plantar flexor strength to walk like healthy young adults. 2014 , 47, 1104-9		53
1766	Finite element modeling in the musculoskeletal system: generic overview. 2014 , 12-38		1
1765	Real-time simulation of three-dimensional shoulder girdle and arm dynamics. <i>IEEE Transactions on Biomedical Engineering</i> , 2014 , 61, 1947-56	5	39
1764	Modeling the biomechanics of swine mastication—an inverse dynamics approach. 2014 , 47, 2626-32		12
1763	Strain energy in the femoral neck during exercise. 2014 , 47, 1784-91		42
1762	Ground reaction force estimation using an insole-type pressure mat and joint kinematics during walking. 2014 , 47, 2693-9		49
1761	Synergistic interaction between ankle and knee during hopping revealed through induced acceleration analysis. 2014 , 33, 312-20		7
1760	Computationally efficient modeling of proprioceptive signals in the upper limb for prostheses: a simulation study. 2014 , 8, 181		7
1759	Effectiveness of Selected Fitness Exercises on Stress of Femoral Neck using Musculoskeletal Dynamics Simulations and Finite Element Model. 2014 , 41, 59-70		3
1758	An approach for goal-oriented neuromuscular control of digital humans in physics-based simulations. 2014 , 4, 121		6
1757	The influence of muscle action on joint loading during dynamic finger pressing tasks in an open-source modelling environment. 2014 , 4, 162		
1756	The effects of walking speed on tibiofemoral loading estimated via musculoskeletal modeling. 2014 , 30, 197-205		30
1755	Muscle contributions to elbow joint rotational stiffness in preparation for sudden external arm perturbations. 2014 , 30, 282-9		7
1754	Effects of an obesity-specific marker set on estimated muscle and joint forces in walking. 2014 , 46, 1261-7		28

1753	Human Factors Simulation Using Demographically Tuned Biomechanical Models. 2014 , 58, 944-948		2
1752	The effect of hip and knee joint center calibration method on musculo-skeletal modeling outcomes. 2015 , 42, S46-S47		
1751	Development and validation of a computational musculoskeletal model of the cat hind limb. 2015 ,		
1750	Musculoskeletal analysis of mining activities. 2015 ,		7
1749	A Robot-Driven Computational Model for Estimating Passive Ankle Torque With Subject-Specific Adaptation. <i>IEEE Transactions on Biomedical Engineering</i> , 2016 , 63, 814-21	5	17
1748	Hand Gesture Modeling and Recognition for Human and Robot Interactive Assembly Using Hidden Markov Models. 2015 , 12, 48		12
1747	Conceptual Design of an Active Transtibial Prosthesis Based on Expected Joint and Muscle Forces in a Unilateral Transtibial Amputee: A Modelling Study. 2015 ,		2
1746	The development of a segment-based musculoskeletal model of the lower limb: introducing FreeBody. 2015 , 2, 140449		29
1745	Effort cube. 2015 ,		
1744	Wearable inflatable robot for supporting postural transitions in infants between sitting and lying. 2015 ,		2
1743	A comparison of four different muscle pennation models and their effects on predictions in peak fiber force and operating range of fiber length. 2015 , 16, 1179-1185		
1742	Influence of different hip joint calculation methods on hip and knee kinematics and kinetics. 2015 , 42, S47		
1741	CEINMS: A toolbox to investigate the influence of different neural control solutions on the prediction of muscle excitation and joint moments during dynamic motor tasks. 2015 , 48, 3929-36		128
1740	Gait analysis driven finite element simulations: Towards the use of opensim output as boundary condition. 2015 , 42, S75		1
1739	Estimation of ground reaction forces and ankle moment with multiple, low-cost sensors. 2015 , 12, 90		55
1738	Adaptable Anatomical Models for Realistic Bone Motion Reconstruction. 2015 , 34, 459-471		12
1737	Bio-inspired control research of a novel lower extremity exoskeleton with a series-parallel mechanism. 2015 , 229, 2875-2889		1
1736	Learning to walk with an adaptive gain proportional myoelectric controller for a robotic ankle exoskeleton. 2015 , 12, 97		85

1735	MOToNMS: A MATLAB toolbox to process motion data for neuromusculoskeletal modeling and simulation. 2015 , 10, 12	65
1734	Modulating tibiofemoral contact force in the sheep hind limb via treadmill walking: Predictions from an opensim musculoskeletal model. 2015 , 33, 1128-33	15
1733	A Modeling Framework to Investigate the Radial Component of the Pushrim Force in Manual Wheelchair Propulsion. 2015 , 35, 02008	2
1732	Functional Loss With Displacement of Medial Epicondyle Humerus Fractures: A Computer Simulation Study. 2015 , 35, 666-71	15
1731	Residual analysis of ground reaction forces simulation during gait using neural networks with different configurations. 2015 , 2015, 2812-5	13
1730	Simulation and Analysis of Leg Length Discrepancy and its Effect on Muscles. 2015 , 8,	1
1729	Effects of front and back squat techniques on patellofemoral joint kinetics in males. 2015 , 2, 76	1
1728	Musculoskeletal Modeling of the Lumbar Spine to Explore Functional Interactions between Back Muscle Loads and Intervertebral Disk Multiphysics. 2015 , 3, 111	12
1727	Analysis of the skill of periodic motion using a Bayesian network . 2015 , 2015, 219-224	
1726	Predictive simulation generates human adaptations during loaded and inclined walking. 2015 , 10, e0121407	58
1725	Change in the Pathologic Supraspinatus: A Three-Dimensional Model of Fiber Bundle Architecture within Anterior and Posterior Regions. 2015 , 2015, 564825	3
1724	A Hertzian Integrated Contact Model of the Total Knee Replacement Implant for the Estimation of Joint Contact Forces. 2015 , 2015, 1-9	3
1723	Review of Modelling Techniques for In Vivo Muscle Force Estimation in the Lower Extremities during Strength Training. 2015 , 2015, 483921	18
1722	Musculoskeletal Simulation for Assessment of Effect of Movement-Based Structure-Modifying Treatment Strategies. 2015 , 2015, 1-12	7
1721	Sensitivity of a subject-specific musculoskeletal model to the uncertainties on the joint axes location. 2015 , 18, 1555-63	46
1720	Sex differences in knee loading in recreational runners. 2015 , 48, 2171-5	248
1719	Loading of Hip Measured by Hip Contact Forces at Different Speeds of Walking and Running. 2015 , 30, 1431-40	49
1718	Advances in Swarm and Computational Intelligence. 2015 ,	

1717	Soft Robotics. 2015,	32
1716	A probabilistic approach to quantify the impact of uncertainty propagation in musculoskeletal simulations. 2015, 43, 1098-111	58
1715	Load balance control for a humanoid musculoskeletal arm in table tennis movement. 2015, 13, 887-896	2
1714	A reduced-complexity description of arm endpoint stiffness with applications to teleimpedance control. 2015,	26
1713	Effects of reserve actuators on optimization solutions: From muscle force to joint stiffness. 2015,	5
1712	A Hill-Type Submaximally-Activated Musculotendon Model and Its Simulation. 2015,	2
1711	A mathematical approach to determine the work-done from EMG analysis. 2015,	1
1710	A flexible architecture to enhance wearable robots: Integration of EMG-informed models. 2015,	8
1709	Anticipatory signals in kinematics and muscle activity during functional grasp and release. 2015,	3
1708	. 2015,	
1707	Enabling Smart System design with the SMAC Platform. 2015,	3
1706	HuMoD - A versatile and open database for the investigation, modeling and simulation of human motion dynamics on actuation level. 2015,	18
1705	Computational Prediction of Muscle Moments During ARED Squat Exercise on the International Space Station. 2015, 137, 121005	7
1704	A redundancy resolution method for an anthropomorphic dual-arm manipulator based on a musculoskeletal criterion. 2015,	9
1703	Musculoskeletal model predicts multi-joint wrist and hand movement from limited EMG control signals. 2015, 2015, 1132-5	7
1702	Modeling and simulating the neuromuscular mechanisms regulating ankle and knee joint stiffness during human locomotion. 2015, 114, 2509-27	69
1701	The relation between analytical and functional measurements of spasticity in children with cerebral palsy. 2015, 42, S20-S21	
1700	The role of human ankle plantar flexor muscle-tendon interaction and architecture in maximal vertical jumping examined in vivo. 2016, 219, 528-34	42

1699	Human Interface Design Method Based on the Estimation of Muscle Effort by a Musculoskeletal Model. 2015,	0
1698	ASSESSMENT OF PARAMETER UNCERTAINTY IN RIGID MUSCULOSKELETAL SIMULATION USING A PROBABILISTIC APPROACH. 2015, 18, 1550013	9
1697	Concurrent multibody and Finite Element analysis of the lower-limb during amputee running. 2015, 2015, 2434-7	3
1696	Toward isometric force capabilities evaluation by using a musculoskeletal model: Comparison with direct force measurement. 2015, 48, 3178-84	10
1695	A three-dimensional ankle kinetostatic model to simulate loaded and unloaded joint motion. 2015, 137, 061005	13
1694	Incorporating Six Degree-of-Freedom Intervertebral Joint Stiffness in a Lumbar Spine Musculoskeletal Model-Method and Performance in Flexed Postures. 2015, 137, 101008	21
1693	Computer Aided Ergonomics Through Parametric Biomechanical Simulation. 2015,	8
1692	Muscle coordination of support, progression and balance during stair ambulation. 2015, 48, 340-7	35
1691	Neuromechanical control of the forearm muscles during gripping with sudden flexion and extension wrist perturbations. 2015, 18, 1826-34	24
1690	Biomechanical and clinical correlates of swing-phase knee flexion in individuals with spastic cerebral palsy who walk with flexed-knee gait. 2015, 96, 511-7	10
1689	Assessment of lower leg muscle force distribution during isometric ankle dorsi and plantar flexion in patients with diabetes: a preliminary study. 2015, 29, 282-7	13
1688	Understanding how pre-impact posture can affect injury outcome in side impact sled tests using a new tool for visualization of cadaver kinematics. 2015, 48, 529-33	9
1687	Muscle optimization techniques impact the magnitude of calculated hip joint contact forces. 2015, 33, 430-8	35
1686	Concurrent deficits of soleus and gastrocnemius muscle fascicles and Achilles tendon post stroke. 2015, 118, 863-71	18
1685	Does wearing shoes affect your biomechanical efficiency?. 2015, 48, 413-7	13
1684	How tibiofemoral alignment and contact locations affect predictions of medial and lateral tibiofemoral contact forces. 2015, 48, 644-650	106
1683	Development of a computational framework to adjust the pre-impact spine posture of a whole-body model based on cadaver tests data. 2015, 48, 636-643	12
1682	Analytical and multibody modeling for the power analysis of standing jumps. 2015, 18, 1564-73	3

1681	Variations in jump height explain the between-sex difference in patellar tendon loading during landing. 2015 , 25, 265-72	8
1680	Driving a musculoskeletal model with inertial and magnetic measurement units. 2015 , 18, 1003-1013	15
1679	Decoding a wide range of hand configurations from macaque motor, premotor, and parietal cortices. 2015 , 35, 1068-81	90
1678	Optimising muscle parameters in musculoskeletal models using Monte Carlo simulation. 2015 , 18, 607-17	6
1677	Multilayer Joint Gait-Pose Manifolds for Human Gait Motion Modeling. 2015 , 45, 2413-24	44
1676	Extrinsic and intrinsic index finger muscle attachments in an OpenSim upper-extremity model. 2015 , 43, 937-48	9
1675	Computing muscle, ligament, and osseous contributions to the elbow varus moment during baseball pitching. 2015 , 43, 404-15	32
1674	Individual muscle contributions to circular turning mechanics. 2015 , 48, 1067-74	23
1673	Musculoskeletal simulation can help explain selective muscle degeneration in Duchenne muscular dystrophy. 2015 , 52, 174-82	18
1672	Is my model good enough? Best practices for verification and validation of musculoskeletal models and simulations of movement. 2015 , 137, 020905	288
1671	Scaling of musculoskeletal models from static and dynamic trials. 2015 , 2, 1-11	90
1670	Comparison of two methods of determining patellofemoral joint stress during dynamic activities. 2015 , 42, 218-22	17
1669	Addressing the Smart Systems design challenge: The SMAC platform. 2015 , 39, 1158-1173	2
1668	Performance and Ergonomics of Touch Surfaces. 2015 ,	36
1667	Practical approach to subject-specific estimation of knee joint contact force. 2015 , 48, 2897-902	26
1666	Muscle force modification strategies are not consistent for gait retraining to reduce the knee adduction moment in individuals with knee osteoarthritis. 2015 , 48, 3163-9	12
1665	Head kinematics during shaking associated with abusive head trauma. 2015 , 48, 3123-7	5
1664	Integration of marker and force data to compute three-dimensional joint moments of the thumb and index finger digits during pinch. 2015 , 18, 592-606	6

1663	Gait alterations to effectively reduce hip contact forces. 2015 , 33, 1094-102	50
1662	Development and Validation of a Musculoskeletal Model of the Fully Articulated Thoracolumbar Spine and Rib Cage. 2015 , 137, 081003	88
1661	Contribution of tibiofemoral joint contact to net loads at the knee in gait. 2015 , 33, 1054-60	12
1660	Multimodal medical imaging (CT and dynamic MRI) data and computer-graphics multi-physical model for the estimation of patient specific lumbar spine muscle forces. 2015 , 96-97, 3-18	18
1659	Validation of an artificially activated mechanistic muscle model by using inverse dynamics analysis. 2015 , 93, 1-10	4
1658	A patient-specific model of the biomechanics of hip reduction for neonatal Developmental Dysplasia of the Hip: Investigation of strategies for low to severe grades of Developmental Dysplasia of the Hip. 2015 , 48, 2026-33	12
1657	In vivo behavior of the human soleus muscle with increasing walking and running speeds. 2015 , 118, 1266-75	104
1656	Maximum forces and joint stability implications during in-line arm pushes. 2015 , 16, 314-325	4
1655	Risk Assessment of Work-Related Musculoskeletal Disorders in Construction: State-of-the-Art Review. 2015 , 141, 04015008	98
1654	Quantification of the role of tibial posterior slope in knee joint mechanics and ACL force in simulated gait. 2015 , 48, 1899-905	55
1653	Biomechanical predictors of maximal balance recovery performance amongst community-dwelling older adults. 2015 , 66, 39-46	25
1652	Superficial shoulder muscle co-activations during lifting tasks: Influence of lifting height, weight and phase. 2015 , 25, 355-62	20
1651	Contributions of muscle imbalance and impaired growth to postural and osseous shoulder deformity following brachial plexus birth palsy: a computational simulation analysis. 2015 , 40, 1170-6	17
1650	Femoral bone mesoscale structural architecture prediction using musculoskeletal and finite element modelling. 2015 , 2, 43-61	34
1649	Reply to "Letter to the editor: Consistency among musculoskeletal models: caveat utilitor". 2015 , 43, 1055-6	
1648	Letter to the editor: in response to "Consistency among musculoskeletal models: caveat utilitor". 2015 , 43, 1052-4	2
1647	Prediction of muscle activity during loaded movements of the upper limb. 2015 , 12, 6	16
1646	Sensitivity of predicted muscle forces during gait to anatomical variability in musculotendon geometry. 2015 , 48, 2116-23	27

1645	Six degree-of-freedom analysis of hip, knee, ankle and foot provides updated understanding of biomechanical work during human walking. 2015 , 218, 876-86	76
1644	Biologically-inspired push recovery capable bipedal locomotion modeling through hybrid automata. 2015 , 70, 181-190	41
1643	Stochastic modelling of muscle recruitment during activity. 2015 , 5, 20140094	35
1642	Consequences of biomechanically constrained tasks in the design and interpretation of synergy analyses. 2015 , 113, 2102-13	56
1641	Ultrasound-based subject-specific parameters improve fascicle behaviour estimation in Hill-type muscle model. 2015 , 18, 116-23	17
1640	Control of propulsion and body lift during the first two stances of sprint running: a simulation study. 2015 , 33, 2016-24	21
1639	Structural and mechanical properties of the human Achilles tendon: Sex and strength effects. 2015 , 48, 3530-3	31
1638	Prediction of postural strategies. 2015 , 42, S99-S100	1
1637	Musculoskeletal representation of a large repertoire of hand grasping actions in primates. 2015 , 23, 210-20	25
1636	Musculoskeletal Static Workspace Analysis of the Human Shoulder as a Cable-Driven Robot. 2015 , 20, 978-984	24
1635	Walking patterns and hip contact forces in patients with hip dysplasia. 2015 , 42, 529-33	35
1634	Simulation and Visual Analysis of Neuromusculoskeletal Models and Data. 2015 , 411-420	5
1633	Development of a kinematic model to predict finger flexor tendon and subsynovial connective tissue displacement in the carpal tunnel. 2015 , 58, 1398-409	6
1632	Dynamic Bipedal Walking under Stick-Slip Transitions. 2015 , 14, 609-642	16
1631	Software for Biofabrication. 2015 , 19-41	4
1630	Prediction of hip joint load and translation using musculoskeletal modelling with force-dependent kinematics and experimental validation. 2015 , 229, 477-90	21
1629	Informing the Design of Novel Input Methods with Muscle Coactivation Clustering. 2015 , 21, 1-25	22
1628	Biomechanical simulation and control of hands and tendinous systems. 2015 , 34, 1-10	25

1627	On the mechanical design and control of a self-adaptive exoskeleton chair. 2015,	4
1626	Feasible muscle activation ranges based on inverse dynamics analyses of human walking. 2015, 48, 2990-7	22
1625	Musculoskeletal Simulation of Isokinetic Exercises: A Biomechanical and Electromyographical Pilot Study. 2015, 112, 250-255	3
1624	Computation of ground reaction force using Zero Moment Point. 2015, 48, 3776-81	12
1623	. 2015,	
1622	Embedded piezoelectrics for sensing and energy harvesting in total knee replacement units. 2015,	2
1621	The mobilize center: an NIH big data to knowledge center to advance human movement research and improve mobility. 2015, 22, 1120-5	20
1620	A position generation algorithm utilizing a biomechanical model for robot-human object handover. 2015,	6
1619	Modeling Implantable Passive Mechanisms for Modifying the Transmission of Forces and Movements Between Muscle and Tendons. <i>IEEE Transactions on Biomedical Engineering</i> , 2015, 62, 2208-14	8
1618	A neuromusculoskeletal model of the human upper limb for a myoelectric exoskeleton control using a reduced number of muscles. 2015,	13
1617	Artificial Intelligence Applications and Innovations. 2015,	
1616	Impact of gait modifications on hip joint loads during level walking. 2015, 346-349	1
1615	A unified approach for revealing multiple balance recovery strategies. 2015, 44, 307-16	7
1614	Can optimal marker weightings improve thoracohumeral kinematics accuracy?. 2015, 48, 2019-25	15
1613	Sensitivity of femoral strain calculations to anatomical scaling errors in musculoskeletal models of movement. 2015, 48, 3606-15	19
1612	Three-dimensional kinematics of the pelvis and hind limbs in chimpanzee (<i>Pan troglodytes</i>) and human bipedal walking. 2015, 86, 32-42	47
1611	Effect of lower-limb joint models on subject-specific musculoskeletal models and simulations of daily motor activities. 2015, 48, 4198-205	28
1610	Muscle contributions to centre of mass acceleration during turning gait in typically developing children: A simulation study. 2015, 48, 4238-45	10

1609	Shoe drop has opposite influence on running pattern when running overground or on a treadmill. 2015 , 115, 911-8	41
1608	Adaptive [bad-distributed]muscle coordination method for kinematically redundant musculoskeletal humanoid systems. 2015 , 64, 59-69	5
1607	Effect of increased pushoff during gait on hip joint forces. 2015 , 48, 181-5	14
1606	An improved inverse dynamics formulation for estimation of external and internal loads during human sagittal plane movements. 2015 , 18, 362-75	7
1605	Effects of height and load weight on shoulder muscle work during overhead lifting task. 2015 , 58, 748-61	20
1604	Cable-Driven Parallel Robots. 2015 ,	9
1603	Benchmarking of dynamic simulation predictions in two software platforms using an upper limb musculoskeletal model. 2015 , 18, 1445-58	150
1602	Knowledge and Systems Engineering. 2015 ,	1
1601	ACL Reconstruction Decision Support. Personalized Simulation of the Lachman Test and Custom Activities. 2016 , 55, 98-105	11
1600	Three dimensional design, simulation and optimization of a novel, universal diabetic foot offloading orthosis. 2016 , 149, 012140	1
1599	OpenEyeSim: A biomechanical model for simulation of closed-loop visual perception. 2016 , 16, 25	15
1598	Side to side differences in hamstring muscle kinematics during maximal instep soccer kicking. 2016 , 85-92	1
1597	Biomechanical Modeling of Human Body Movement. 2016 , 7,	3
1596	Object vision to hand action in macaque parietal, premotor, and motor cortices. 2016 , 5,	63
1595	Muscle Synergies Facilitate Computational Prediction of Subject-Specific Walking Motions. 2016 , 4, 77	47
1594	A Pilot Study of Individual Muscle Force Prediction during Elbow Flexion and Extension in the Neurorehabilitation Field. 2016 , 16,	6
1593	A Biomechanical Model of the Scapulothoracic Joint to Accurately Capture Scapular Kinematics during Shoulder Movements. 2016 , 11, e0141028	66
1592	Stretching Your Energetic Budget: How Tendon Compliance Affects the Metabolic Cost of Running. 2016 , 11, e0150378	59

1591	Biomechanical Constraints Underlying Motor Primitives Derived from the Musculoskeletal Anatomy of the Human Arm. 2016 , 11, e0164050		15
1590	Passive Muscle-Tendon Unit Gearing Is Joint Dependent in Human Medial Gastrocnemius. 2016 , 7, 95		12
1589	Full-Body Musculoskeletal Model for Muscle-Driven Simulation of Human Gait. <i>IEEE Transactions on Biomedical Engineering</i> , 2016 , 63, 2068-79	5	307
1588	Spinal muscle activity in simulated rugby union scrummaging is affected by different engagement conditions. 2016 , 26, 432-40		11
1587	Gait alterations can reduce the risk of edge loading. 2016 , 34, 1069-76		7
1586	A physiologically based hypothesis for learning proprioception and in approximating inverse kinematics. 2016 , 4, e12774		2
1585	Synthesis of full-body 3-D human gait using optimal control methods. 2016 ,		22
1584	Subject-specific modeling of muscle force and knee contact in total knee arthroplasty. 2016 , 34, 1576-87		27
1583	PALEONTOLOGY. Learning to move on land. 2016 , 353, 120-1		2
1582	Effect of sagittal plane mechanics on ACL strain during jump landing. 2016 , 34, 1636-44		41
1581	Interaction modelling for wearable assistive devices. 2016 ,		
1580	Age-related differences in muscle control of the lower extremity for support and propulsion during walking. 2016 , 28, 794-801		2
1579	RIGID MUSCULOSKELETAL MODELS OF THE HUMAN BODY SYSTEMS: A REVIEW. 2016 , 19, 1630001		8
1578	Neuromusculoskeletal Model Calibration Significantly Affects Predicted Knee Contact Forces for Walking. 2016 , 138,		26
1577	Ergonomic effects of using Lift Augmentation Devices in mining activities. 2016 ,		3
1576	A Simulation Framework for Virtual Prototyping of Robotic Exoskeletons. 2016 , 138, 061004		10
1575	Intra-Articular Knee Contact Force Estimation During Walking Using Force-Reaction Elements and Subject-Specific Joint Model. 2016 , 138, 021016		17
1574	Muscle synergies for reliable NAO arm motion control: An online simulation with real-time constraints. 2016 ,		1

1573	A Comparative Study on Control Strategies for FES Cycling Using a Detailed Musculoskeletal Model. 2016 , 49, 204-209	6
1572	An sEMG-driven neuromusculoskeletal model of upper limb for rehabilitation robot control. 2016 ,	4
1571	In-vitro identification of shoulder joint and muscle dynamics based on motion capture and musculoskeletal computation. 2016 , 2016, 6050-6053	1
1570	Data-driven inverse dynamics for human motion. 2016 , 35, 1-12	17
1569	Reconstructing personalized anatomical models for physics-based body animation. 2016 , 35, 1-13	33
1568	Development of an open-source cosimulation method of the knee. 2016 , 2016, 6034-6037	2
1567	Tibiofemoral Contact Forces in the Anterior Cruciate Ligament-Reconstructed Knee. 2016 , 48, 2195-2206	46
1566	The characterization of the kinematic and dynamic properties of the ankle joint for an artificial ankle joint design. 2016 ,	0
1565	Dynamics filter for walking trajectories from human motion capture. 2016 ,	4
1564	User-safe orthosis based on compliant actuators: Mechanical design and control framework. 2016 ,	3
1563	Immediate effects of modified landing pattern on a probabilistic tibial stress fracture model in runners. 2016 , 33, 49-54	25
1562	Comparison of ACL strain estimated via a data-driven model with in vitro measurements. 2016 , 19, 1550-6	7
1561	Building the vocational phase of the computerized motor skills testing system for use in the Electronics and Electrical Engineering Group and Hospitality Group. 2016 , 24, 1280-1297	4
1560	Evaluation of Direct Collocation Optimal Control Problem Formulations for Solving the Muscle Redundancy Problem. 2016 , 44, 2922-2936	102
1559	Exoskeleton-centered Process Optimization in Advanced Factory Environments. 2016 , 41, 740-745	16
1558	Optimal Control for Applications in Medical and Rehabilitation Technology: Challenges and Solutions. 2016 , 103-145	9
1557	Biologically Inspired Control of Humanoid Robot Arms. 2016 ,	5
1556	Human Motion. 2016 , 49-74	1

1555	Joint kinematic calculation based on clinical direct kinematic versus inverse kinematic gait models. 2016 , 49, 1658-1669	69
1554	Assessment of cartilage contact pressure and loading in the hip joint during split posture. 2016 , 11, 745-56	6
1553	A forward-muscular inverse-skeletal dynamics framework for human musculoskeletal simulations. 2016 , 49, 1718-1723	21
1552	Neural Data-Driven Musculoskeletal Modeling for Personalized Neurorehabilitation Technologies. <i>IEEE Transactions on Biomedical Engineering</i> , 2016 , 63, 879-893	5 83
1551	Structure Preserving Optimal Control of a Three-Dimensional Upright Gait. 2016 , 115-146	1
1550	A Footwear-Boot-Knee Computational Platform for Exploring Footwear Effects on Knee Joint Biomechanics. 2016 , 36, 245-256	3
1549	A Subject-Specific EMG-Driven Musculoskeletal Model for Applications in Lower-Limb Rehabilitation Robotics. 2016 , 13, 1650005	15
1548	Determining residual reduction algorithm kinematic tracking weights for a sidestep cut via numerical optimization. 2016 , 19, 1721-1729	6
1547	Anterior cruciate ligament (ACL) loading in a collegiate athlete during sidestep cutting after ACL reconstruction: A case study. 2016 , 23, 744-52	6
1546	Inferring muscle functional roles of the ostrich pelvic limb during walking and running using computer optimization. 2016 , 13,	38
1545	Survey and comparative study of free simulation software for mobile robots. 2016 , 34, 791-822	12
1544	Effects of Prophylactic Knee Bracing on Lower Limb Kinematics, Kinetics, and Energetics During Double-Leg Drop Landing at 2 Heights. 2016 , 44, 1753-61	10
1543	Subject-specific musculoskeletal modelling in patients before and after total hip arthroplasty. 2016 , 19, 1683-91	27
1542	Estimating the Mechanical Behavior of the Knee Joint During Crouch Gait: Implications for Real-Time Motor Control of Robotic Knee Orthoses. 2016 , 24, 621-9	10
1541	Influence of Ligament Properties on Tibiofemoral Mechanics in Walking. 2016 , 29, 99-106	34
1540	Subject-specific biomechanics of trunk: musculoskeletal scaling, internal loads and intradiscal pressure estimation. 2016 , 15, 1699-1712	39
1539	In-vivo quantification of dynamic hip joint center errors and soft tissue artifact. 2016 , 50, 246-251	29
1538	Commentary on the integration of model sharing and reproducibility analysis to scholarly publishing workflow in computational biomechanics. <i>IEEE Transactions on Biomedical Engineering</i> , 2016 , 63, 2080-2085	5 6

1537	Passive muscle force analysis during vehicle access: A gender comparison. 2016,	1
1536	Demographic specific musculoskeletal models of factory worker performance, fatigue, and injury. 2016,	1
1535	Bio-inspired balance controller for a humanoid robot. 2016,	5
1534	Subject-specific musculoskeletal modeling in the evaluation of shoulder muscle and joint function. 2016, 49, 3626-3634	52
1533	Muscle-tendon unit scaling methods of Hill-type musculoskeletal models: An overview. 2016, 230, 976-84	19
1532	A constrained Extended Kalman Filter for dynamically consistent inverse kinematics and inertial parameters identification. 2016,	7
1531	Prediction of ACL and PCL Loads During Isokinetic Knee Exercises using Experimental Tests and Musculoskeletal Simulations. 2016, 147, 246-251	
1530	Enhanced Musculoskeletal Modeling for Prediction of Intervertebral Disc Stress Within Annulus Fibrosus and Nucleus Pulposus Regions During Flexion Movement. 2016, 36, 583-593	5
1529	A prosthesis-specific multi-link segment model of lower-limb amputee sprinting. 2016, 49, 3185-3193	10
1528	Quantifying Achilles tendon force in vivo from ultrasound images. 2016, 49, 3200-3207	29
1527	The mechanical function of the tibialis posterior muscle and its tendon during locomotion. 2016, 49, 3238-3243	31
1526	Pediatric obesity and walking duration increase medial tibiofemoral compartment contact forces. 2016, 34, 97-105	25
1525	The functional roles of muscles during sloped walking. 2016, 49, 3244-3251	35
1524	Robots with a sense of touch. 2016, 15, 921-5	159
1523	Human ankle plantar flexor muscle-tendon mechanics and energetics during maximum acceleration sprinting. 2016, 13,	26
1522	Development of an Open-Source, Discrete Element Knee Model. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 63, 2056-67	5 14
1521	Prophylactic knee bracing alters lower-limb muscle forces during a double-leg drop landing. 2016, 49, 3347-3354	17
1520	Electromyography-Driven Modeling for Simulating Subject-Specific Movement at the Neuromusculoskeletal Level. 2016, 247-272	2

1519	Tibiofemoral contact forces during walking, running and sidestepping. 2016 , 49, 78-85	73
1518	Is the Motion of a Child Perceivably Different from the Motion of an Adult?. 2016 , 13, 1-17	4
1517	Neuro-musculoskeletal simulation of instrumented contracture and spasticity assessment in children with cerebral palsy. 2016 , 13, 64	35
1516	Isokinematic leg extension training with an industrial robot. 2016 ,	3
1515	Anthropomorphic Movement Analysis and Synthesis: A Survey of Methods and Applications. 2016 , 32, 776-795	29
1514	Gender Differences in Muscle Forces of Lower Extremities of Healthy Young Adults during Walking. 2016 , 31, 37-42	1
1513	Relationship between sagittal plane kinematics, foot morphology and vertical forces applied to three regions of the foot. 2016 , 3, 50-56	2
1512	Influence of Position and Power Output on Upper Limb Kinetics in Cycling. 2016 , 32, 140-9	6
1511	Evaluation of a Low-Cost Pneumatic Plantar Pressure Insole for Predicting Ground Contact Kinetics. 2016 , 32, 215-20	3
1510	Optimal Joint Positions for Manual Isometric Muscle Testing. 2016 , 25,	4
1509	Comparison of Estimated and Measured Muscle Activity During Inclined Walking. 2016 , 32, 150-9	26
1508	Muscle Forces and Their Contributions to Vertical and Horizontal Acceleration of the Center of Mass During Sit-to-Stand Transfer in Young, Healthy Adults. 2016 , 32, 487-503	28
1507	Changes in Mobility and Muscle Function of Children with Cerebral Palsy after Gait Training: A Pilot Study. 2016 , 32, 469-86	7
1506	The effect of the extensor mechanism on maximum isometric fingertip forces: A numerical study on the index finger. 2016 , 49, 3423-3429	10
1505	Orthotic Heel Wedges Do Not Alter Hindfoot Kinematics and Achilles Tendon Force During Level and Inclined Walking in Healthy Individuals. 2016 , 32, 160-70	3
1504	Musculoskeletal Modelling in Sports - Evaluation of Different Software Tools with Focus on Swimming. 2016 , 147, 281-287	9
1503	Unifying Representations and Large-Scale Whole-Body Motion Databases for Studying Human Motion. 2016 , 32, 796-809	50
1502	The effect of foot landing position on biomechanical risk factors associated with anterior cruciate ligament injury. 2016 , 3, 13	26

1501 Effects of walking speed and age on the muscle forces of unimpaired gait subjects. **2016**, 705, 012015

1500 Lower limb estimation from sparse landmarks using an articulated shape model. **2016**, 49, 3875-3881 39

1499 Lumped-parameter electromyogram-driven musculoskeletal hand model: A potential platform for real-time prosthesis control. **2016**, 49, 3901-3907 39

1498 Computational Modeling of Muscle Regeneration and Adaptation to Advance Muscle Tissue Regeneration Strategies. **2016**, 202, 250-266 14

1497 Generating physically realistic kinematic and dynamic models from small data sets: An application for sit-to-stand actions. **2016**, 2016, 2173-2178 1

1496 A 6-DOF exoskeleton for head and neck motion assist with parallel manipulator and sEMG based control. **2016**, 6

1495 Introducing postural variability improves the distribution of muscular loads during mid-air gestural interaction. **2016**, 2

1494 A method of optimization based human dynamic simulation for exoskeleton robot design and assessment. **2016**,

1493 Experimental assessment of the quality of ergonomic indicators for dynamic systems computed using a digital human model. **2016**, 5, 190 6

1492 A new validation technique for estimations of body segment inertia tensors: Principal axes of inertia do matter. **2016**, 49, 4119-4123 4

1491 Mechanical effort predicts the selection of ankle over hip strategies in nonstepping postural responses. **2016**, 116, 1937-1945 17

1490 Soldier-relevant body borne loads increase knee joint contact force during a run-to-stop maneuver. **2016**, 49, 3868-3874 10

1489 Using Training as a Tool for Cultivating Communities of Practice around Health Information Systems in Low and Middle Income Countries: A Longitudinal Mixed Method Study. **2016**, 73, 1-23 1

1488 Simulation of generic body weight support systems effects for assisted walking. **2016**,

1487 Gender effect on the scapular 3D posture and kinematic in healthy subjects. **2016**, 36, 188-96 6

1486 Deconstructing the power resistance relationship for squats: A joint-level analysis. **2016**, 26, 774-81 22

1485 Hip joint contact loads in older adults during recovery from forward loss of balance by stepping. **2016**, 49, 2619-2624 7

1484 Dynamics analysis and control of all-terrains wearable vehicle. **2016**, 0

1483	The Influence of Uncertainty in Body Segment Mass on Calculated Joint Moments and Muscle Forces. 2016 , 349-359	
1482	Component based computational model for bipedal locomotion. 2016 , 81, 48-56	
1481	Consideration of multiple load cases is critical in modelling orthotropic bone adaptation in the femur. 2016 , 15, 1029-42	28
1480	A two-fingered underactuated anthropomorphic manipulator based on human precision manipulation motions. 2016 ,	3
1479	Predicting tibiotalar and subtalar joint angles from skin-marker data with dual-fluoroscopy as a reference standard. 2016 , 49, 136-143	12
1478	Analysis of effects of loading and postural demands on upper limb reaching in older adults using statistical parametric mapping. 2016 , 49, 2806-2816	11
1477	Essential considerations for design and control of human-interactive robots. 2016 ,	18
1476	Using musculoskeletal modeling to evaluate the effect of ankle foot orthosis tuning on musculotendon dynamics: a case study. 2016 , 11, 613-8	6
1475	Estimation of muscle forces in gait using a simulation of the electromyographic activity and numerical optimization. 2016 , 19, 1-12	15
1474	Comparison of hierarchical and six degrees-of-freedom marker sets in analyzing gait kinematics. 2016 , 19, 199-207	8
1473	Predictive Neuromuscular Fatigue of the Lower Extremity Utilizing Computer Modeling. 2016 , 138,	3
1472	Design and Preliminary Evaluation of a Passive Spine Exoskeleton. 2016 , 10,	16
1471	Prediction of In Vivo Knee Joint Loads Using a Global Probabilistic Analysis. 2016 , 138, 4032379	30
1470	How sensitive is the deltoid moment arm to humeral offset changes with reverse total shoulder arthroplasty?. 2016 , 25, 998-1004	14
1469	Biomechanics of Step Initiation After Balance Recovery With Implications for Humanoid Robot Locomotion. 2016 , 138, 4032468	0
1468	Dynamical analysis and design of active orthoses for spinal cord injured subjects by aesthetic and energetic optimization. 2016 , 84, 559-581	10
1467	Ligament and meniscus loading in the ovine stifle joint during normal gait. 2016 , 23, 70-7	9
1466	The role of altered proximal femoral geometry in impaired pelvis stability and hip control during CP gait: A simulation study. 2016 , 44, 61-7	11

1465	Does surgical approach or prosthesis type affect hip joint loading one year after surgery?. 2016 , 44, 74-82	18
1464	How do deltoid muscle moment arms change after reverse total shoulder arthroplasty?. 2016 , 25, 581-8	19
1463	A closed-form formula for the moment arm matrix of a general musculoskeletal model with considering joint constraint and motion rhythm. 2016 , 36, 377-403	5
1462	Knee contact forces are not altered in early knee osteoarthritis. 2016 , 45, 115-20	33
1461	Multi-Joint Compensatory Effects of Unilateral Total Knee Arthroplasty During High-Demand Tasks. 2016 , 44, 2529-2541	19
1460	Compressive and shear hip joint contact forces are affected by pediatric obesity during walking. 2016 , 49, 1547-1553	18
1459	No effect of femoral offset on bone implant micromotion in an experimental model. 2016 , 102, 379-85	8
1458	Relationship between maximum isometric joint moment and functional task performance in patients with brachial plexus injury: A pilot study. 2016 , 44, 238-44	5
1457	Biomechanical model for simulating impacts against protective padding of sport facility. 2016 , 19, 47-57	2
1456	Comparison of the validity of Hill and Huxley muscle-tendon complex models using experimental data obtained from rat m. soleus in situ. 2016 , 219, 977-87	7
1455	In Vivo Knee Contact Force Prediction Using Patient-Specific Musculoskeletal Geometry in a Segment-Based Computational Model. 2016 , 138, 021018	32
1454	Smart System Case Studies. 2016 , 195-227	1
1453	Elastic energy within the human plantar aponeurosis contributes to arch shortening during the push-off phase of running. 2016 , 49, 704-709	46
1452	Multiscale musculoskeletal modelling, data-model fusion and electromyography-informed modelling. 2016 , 6, 20150084	26
1451	A. V. Hill sticks his neck out. 2016 , 219, 468-9	2
1450	Myoelectric Control for Adaptable Biomechanical Energy Harvesting. 2016 , 24, 364-73	15
1449	The effects of a rotator cuff tear on activities of daily living in older adults: A kinematic analysis. 2016 , 49, 611-7	29
1448	Mechanisms Underlying the Neuromodulation of Spinal Circuits for Correcting Gait and Balance Deficits after Spinal Cord Injury. 2016 , 89, 814-28	92

1447	Equivalent linear damping characterization in linear and nonlinear force-stiffness muscle models. 2016 , 110, 73-80	3
1446	The Use of Sonographically Guided Botulinum Toxin Type A (Dysport) Injections Into the Tensor Fasciae Latae for the Treatment of Lateral Patellofemoral Overload Syndrome. 2016 , 44, 1195-202	10
1445	Better Science Through Predictive Modeling: Numerical Tools for Understanding Neuromechanical Interactions. 2016 , 3-19	
1444	Prediction of medial and lateral contact force of the knee joint during normal and turning gait after total knee replacement. 2016 , 230, 288-97	7
1443	Modeling Skeletal Injuries in Military Scenarios. 2016 , 3-35	
1442	An investigation of jogging biomechanics using the full-body lumbar spine model: Model development and validation. 2016 , 49, 1238-1243	51
1441	Subject-specific geometrical detail rather than cost function formulation affects hip loading calculation. 2016 , 19, 1475-88	26
1440	Human upright posture control models based on multisensory inputs; in fast and slow dynamics. 2016 , 104, 96-104	87
1439	Direct Methods for Predicting Movement Biomechanics Based Upon Optimal Control Theory with Implementation in OpenSim. 2016 , 44, 2542-2557	38
1438	Modeling the biomechanics of fetal movements. 2016 , 15, 995-1004	41
1437	Using Haptic fMRI to Enable Interactive Motor Neuroimaging Experiments. 2016 , 89-103	2
1436	Dynamic Simulation of Robotic Devices Using the Biomechanical Simulator OpenSim. 2016 , 1639-1651	
1435	Estimation of musculotendon parameters for scaled and subject specific musculoskeletal models using an optimization technique. 2016 , 49, 141-8	64
1434	Muscular Effort for the Characterization of Human Postural Behaviors. 2016 , 685-696	3
1433	An Open-Source Toolbox for Surrogate Modeling of Joint Contact Mechanics. <i>IEEE Transactions on Biomedical Engineering</i> , 2016 , 63, 269-77	5 12
1432	A Patient-Specific Foot Model for the Estimate of Ankle Joint Forces in Patients with Juvenile Idiopathic Arthritis. 2016 , 44, 247-57	35
1431	A real-time computational model for estimating kinematics of ankle ligaments. 2016 , 19, 835-44	2
1430	Intervertebral reaction force prediction using an enhanced assembly of OpenSim models. 2016 , 19, 538-48	26

1429	Passive-dynamic ankle-foot orthosis replicates soleus but not gastrocnemius muscle function during stance in gait: Insights for orthosis prescription. 2016 , 40, 606-16		19
1428	Computational method for the real-time calculation of the full-body muscle load distribution. 2016 , 19, 759-62		1
1427	The Effects of Prosthesis Inertial Properties on Prosthetic Knee Moment and Hip Energetics Required to Achieve Able-Bodied Kinematics. 2016 , 24, 754-63		23
1426	Simulation-Based Design for Wearable Robotic Systems: An Optimization Framework for Enhancing a Standing Long Jump. <i>IEEE Transactions on Biomedical Engineering</i> , 2016 , 63, 894-903	5	28
1425	Biomechanical and Clinical Correlates of Stance-Phase Knee Flexion in Persons With Spastic Cerebral Palsy. 2016 , 8, 11-8; quiz 18		21
1424	A computational approach to calculate personalized pennation angle based on MRI: effect on motion analysis. 2016 , 11, 683-93		1
1423	Change in knee contact force with simulated change in body weight. 2016 , 19, 320-323		7
1422	Role of gastrocnemius activation in knee joint biomechanics: gastrocnemius acts as an ACL antagonist. 2016 , 19, 376-85		34
1421	Recumbent vs. upright bicycles: 3D trajectory of body centre of mass, limb mechanical work, and operative range of propulsive muscles. 2017 , 35, 491-499		2
1420	Extended foot-ankle musculoskeletal models for application in movement analysis. 2017 , 20, 153-159		17
1419	A scalable geometrical model for musculotendon units. 2017 , 28, e1684		1
1418	Muscle-Based Control for Character Animation. 2017 , 36, 122-147		6
1417	Musculoskeletal loading in the symptomatic and asymptomatic knees of middle-aged osteoarthritis patients. 2017 , 35, 321-330		12
1416	Feasibility of using MRIs to create subject-specific parallel-mechanism joint models. 2017 , 53, 45-55		24
1415	Three-dimensional experimental investigation pertaining to leg kinematics. 2017 , 25, 577-589		
1414	Differences in knee adduction moment between healthy subjects and patients with osteoarthritis depend on the knee axis definition. 2017 , 53, 104-109		8
1413	Encoding of Both Reaching and Grasping Kinematics in Dorsal and Ventral Premotor Cortices. 2017 , 37, 1733-1746		35
1412	Neuromusculoskeletal model self-calibration for on-line sequential bayesian moment estimation. 2017 , 14, 026011		4

1411	Incorporation of CT-based measurements of trunk anatomy into subject-specific musculoskeletal models of the spine influences vertebral loading predictions. 2017 , 35, 2164-2173	24
1410	On identifying kinematic and muscle synergies: a comparison of matrix factorization methods using experimental data from the healthy population. 2017 , 117, 290-302	28
1409	Relationship between bone adaptation and in-vivo mechanical stimulus in biological reconstructions after bone tumor: A biomechanical modeling analysis. 2017 , 42, 99-107	3
1408	Experience, Productivity, and Musculoskeletal Injury among Masonry Workers. 2017 , 143, 05017003	27
1407	Discrete Mechanics and Optimal Control of Walking Gaits. 2017 , 12,	4
1406	Contribution of muscle short-range stiffness to initial changes in joint kinetics and kinematics during perturbations to standing balance: A simulation study. 2017 , 55, 71-77	27
1405	Higher medially-directed joint reaction forces are a characteristic of dysplastic hips: A comparative study using subject-specific musculoskeletal models. 2017 , 54, 80-87	26
1404	Comparison of human gastrocnemius forces predicted by Hill-type muscle models and estimated from ultrasound images. 2017 , 220, 1643-1653	40
1403	Hybrid Rigid-Deformable Model for Prediction of Neighboring Intervertebral Disk Loads During Flexion Movement After Lumbar Interbody Fusion at L3-4 Level. 2017 , 139,	1
1402	An MR-compatible gyroscope-based arm movement tracking system. 2017 , 280, 16-26	4
1401	Forward Static Optimization in Dynamic Simulation of Human Musculoskeletal Systems: A Proof-of-Concept Study. 2017 , 12,	12
1400	Spinal Loading Patterns From Biomechanical Modeling Explain the High Incidence of Vertebral Fractures in the Thoracolumbar Region. 2017 , 32, 1282-1290	50
1399	A practical solution to reduce soft tissue artifact error at the knee using adaptive kinematic constraints. 2017 , 62, 124-131	9
1398	Musculoskeletal model-based control interface mimics physiologic hand dynamics during path tracing task. 2017 , 14, 036008	24
1397	Motion Optimization and Parameter Identification for a Human and Lower Back Exoskeleton Model. 2017 , 2, 1564-1570	20
1396	A personalized 3D-printed prosthetic joint replacement for the human temporomandibular joint: From implant design to implantation. 2017 , 69, 404-411	92
1395	Man/machine interface based on the discharge timings of spinal motor neurons after targeted muscle reinnervation. 2017 , 1,	150
1394	Estimation of attachment regions of hip muscles in CT image using muscle attachment probabilistic atlas constructed from measurements in eight cadavers. 2017 , 12, 733-742	10

1393	Robustness of kinematic weighting and scaling concepts for musculoskeletal simulation. 2017 , 20, 720-729	6
1392	Neck Muscle Moment Arms Obtained In-Vivo from MRI: Effect of Curved and Straight Modeled Paths. 2017 , 45, 2009-2024	15
1391	Sensitivity of a juvenile subject-specific musculoskeletal model of the ankle joint to the variability of operator-dependent input. 2017 , 231, 415-422	13
1390	Comparison of methodologies to assess muscle co-contraction during gait. 2017 , 57, 141-145	19
1389	Reliability of four models for clinical gait analysis. 2017 , 54, 325-331	69
1388	Vacuum level effects on knee contact force for unilateral transtibial amputees with elevated vacuum suspension. 2017 , 57, 110-116	2
1387	Evaluating the Ergonomic Benefit of a Wrist Brace on Wrist Posture, Muscle Activity, Rotational Stiffness, and Peak Shovel-Ground Impact Force During a Simulated Tree-Planting Task. 2017 , 59, 911-924	3
1386	Uncertainty propagation in multibody human model dynamics. 2017 , 40, 177-192	8
1385	Connecting the wrist to the hand: A simulation study exploring changes in thumb-tip endpoint force following wrist surgery. 2017 , 58, 97-104	3
1384	Bilateral differences in muscle fascicle architecture are not related to the preferred leg in jumping athletes. 2017 , 117, 1453-1461	14
1383	The effects of Navy ship ladder descent on the knee internal joint reaction forces. 2017 , 172, 174-185	1
1382	Analysis of Joint and Hand Impedance During Teleoperation and Free-Hand Task Execution. 2017 , 2, 1733-1739	8
1381	Biofeedback for Gait Retraining Based on Real-Time Estimation of Tibiofemoral Joint Contact Forces. 2017 , 25, 1612-1621	60
1380	Androgen deprivation causes selective deficits in the biomechanical leg muscle function of men during walking: a prospective case-control study. 2017 , 8, 102-112	23
1379	Prescribing joint co-ordinates during model preparation to improve inverse kinematic estimates of elbow joint angles. 2017 , 51, 111-117	7
1378	Hybrid hill-type and reflex neuronal system muscle model improves isometric EMG-driven force estimation for low contraction levels. 2017 , 39, 3269-3276	1
1377	Predicting the Functional Roles of Knee Joint Muscles from Internal Joint Moments. 2017 , 49, 527-537	22
1376	Robotic assessment of neuromuscular characteristics using musculoskeletal models: A pilot study. 2017 , 86, 82-89	5

1375	Three-dimensional data-tracking dynamic optimization simulations of human locomotion generated by direct collocation. 2017 , 59, 1-8	30
1374	Effects of hip joint centre mislocation on gait kinematics of children with cerebral palsy calculated using patient-specific direct and inverse kinematic models. 2017 , 57, 154-160	20
1373	The influence of continuous versus interval walking exercise on knee joint loading and pain in patients with knee osteoarthritis. 2017 , 56, 129-133	16
1372	Now I know how! The learning process of medication administration among nursing students with non-immersive desktop virtual reality simulation. 2017 , 113, 16-27	75
1371	Simulations, Imaging, and Modeling: A Unique Theme for an Undergraduate Research Program in Biomechanics. 2017 , 139,	0
1370	Estimating apparent maximum muscle stress of trunk extensor muscles in older adults using subject-specific musculoskeletal models. 2018 , 36, 498-505	6
1369	Joint power generation differentiates young and adult sprinters during the transition from block start into acceleration: a cross-sectional study. 2017 , 16, 452-462	6
1368	An alternative whole-body marker set to accurately and reliably quantify joint kinematics during load carriage. 2017 , 54, 318-324	7
1367	Are Instrumented Knee Forces Representative of a Larger Population of Cruciate-Retaining Total Knee Arthroplasties?. 2017 , 32, 2268-2273	6
1366	Musculoskeletal modelling of human ankle complex: Estimation of ankle joint moments. 2017 , 44, 75-82	14
1365	Muscle-tendon mechanics explain unexpected effects of exoskeleton assistance on metabolic rate during walking. 2017 , 220, 2082-2095	45
1364	Improving the upper-limb force feasible set evaluation by muscles maximal isometric force identification and cocontraction factors. 2017 , 57, 131-135	4
1363	. 2017 , 10, 318-330	25
1362	Accuracy and Reliability of Marker-Based Approaches to Scale the Pelvis, Thigh, and Shank Segments in Musculoskeletal Models. 2017 , 33, 354-360	33
1361	Assessment of stresses at the lower extremity joints wearing laterally wedged insoles. 2017 , 18, 325-331	3
1360	Modulation of leg joint function to produce emulated acceleration during walking and running in humans. 2017 , 4, 160901	15
1359	3D active-passive response of human knee joint in gait is markedly altered when simulated as a planar 2D joint. 2017 , 16, 693-703	14
1358	A postural control model incorporating multisensory inputs for maintaining a musculoskeletal model in a stance posture. 2017 , 31, 55-67	4

1357	Verifying the equivalence of representations of the knee joint moment vector from a drop vertical jump task. 2017 , 24, 484-490	3
1356	A CONSISTENT DATA FUSION APPROACH FOR UNCERTAINTY QUANTIFICATION IN RIGID MUSCULOSKELETAL SIMULATION. 2017 , 17, 1750062	3
1355	Toward modeling locomotion using electromyography-informed 3D models: application to cerebral palsy. 2017 , 9, e1368	25
1354	Preparatory co-activation of the ankle muscles may prevent ankle inversion injuries. 2017 , 52, 17-23	36
1353	Human-oriented design of collaborative robots. 2017 , 57, 88-102	48
1352	Evaluation of the magnitude of hip joint deformation in subjects with avascular necrosis of the hip joint during walking with and without Scottish Rite orthosis. 2017 , 40, 110-116	0
1351	Accuracy of femur reconstruction from sparse geometric data using a statistical shape model. 2017 , 20, 566-576	27
1350	Fatigue injury risk in anterior cruciate ligament of target side knee during golf swing. 2017 , 53, 9-14	11
1349	Effect of hammer mass on upper extremity joint moments. 2017 , 60, 231-239	3
1348	Analysis of muscle activation in lower extremity for static balance. 2017 , 2017, 4118-4122	4
1347	Impact of ankle foot orthosis stiffness on Achilles tendon and gastrocnemius function during unimpaired gait. 2017 , 64, 145-152	12
1346	Elastic ankle muscle-tendon interactions are adjusted to produce acceleration during walking in humans. 2017 , 220, 4252-4260	10
1345	Integrating Multi-Modality Imaging and Biodynamic Measurements for Studying Neck Biomechanics During Sustained-Till-Exhaustion Neck Exertions. 2017 , 61, 986-990	3
1344	Muscle moment arm analyses applied to vertebrate paleontology: a case study using Stegosaurus stenops Marsh, 1887. 2017 , 37, e1361432	16
1343	Simulation of Constrained Musculoskeletal Systems in Task Space. <i>IEEE Transactions on Biomedical Engineering</i> , 2018 , 65, 307-318	5 13
1342	A contact model to simulate human-artifact interaction based on force optimization: implementation and application to the analysis of a training machine. 2017 , 20, 1589-1598	6
1341	The Functional Roles of Muscles, Passive Prostheses, and Powered Prostheses During Sloped Walking in People With a Transtibial Amputation. 2017 , 139,	16
1340	Combining biomechanical and data-driven body surface models. 2017 ,	1

1339 MUSCULAR AND SKELETAL SYSTEMS. **2017**, 305-355

1338 Understanding the Basics of Computational Models in Orthopaedics: A Nonnumeric Review for Surgeons. **2017**, 25, 684-692 6

1337 Accurate Task-Space Tracking for Humanoids with Modeling Errors Using Iterative Learning Control. **2017**, 14, 1750015 0

1336 In Vivo Neuromechanics: Decoding Causal Motor Neuron Behavior with Resulting Musculoskeletal Function. **2017**, 7, 13465 30

1335 Quantification and visualization of coordination during non-cyclic upper extremity motion. **2017**, 63, 82-91 2

1334 Antagonist muscle co-contraction during a double-leg landing maneuver at two heights. **2017**, 20, 1382-1393 4

1333 Inter-individual similarities and variations in muscle forces acting on the ankle joint during gait. **2017**, 58, 166-170 5

1332 Data sample size needed for analysis of kinematic and muscle synergies in healthy and stroke populations. **2017**, 2017, 777-782 1

1331 Sound side joint contact forces in below knee amputee gait with an ESAR prosthetic foot. **2017**, 58, 246-251 3

1330 Influence of ground reaction force perturbations on anterior cruciate ligament loading during sidestep cutting. **2017**, 20, 1394-1402 7

1329 Alterations of musculoskeletal models for a more accurate estimation of lower limb joint contact forces during normal gait: A systematic review. **2017**, 63, 8-20 21

1328 Comparing neural control and mechanically intrinsic control of powered ankle exoskeletons. **2017**, 2017, 294-299 15

1327 Relationships Between Tibiofemoral Contact Forces and Cartilage Morphology at 2 to 3 Years After Single-Bundle Hamstring Anterior Cruciate Ligament Reconstruction and in Healthy Knees. **2017**, 5, 2325967117722506 11

1326 Mechanical Design and Human-Machine Coupling Dynamic Analysis of a Lower Extremity Exoskeleton. **2017**, 593-604 3

1325 Why are Antagonist Muscles Co-activated in My Simulation? A Musculoskeletal Model for Analysing Human Locomotor Tasks. **2017**, 45, 2762-2774 48

1324 nmsBuilder: Freeware to create subject-specific musculoskeletal models for OpenSim. **2017**, 152, 85-92 46

1323 A low-cost optimization framework to solve muscle redundancy problem. **2017**, 90, 2277-2291 1

1322 Modelling of the human shoulder girdle as a 6-4 parallel mechanism with a moving scapulothoracic joint. **2017**, 118, 219-230 4

1321	Validation of plantar pressure simulations using finite and discrete element modelling in healthy and diabetic subjects. 2017 , 20, 1442-1452	1
1320	Shifting gears: dynamic muscle shape changes and force-velocity behavior in the medial gastrocnemius. 2017 , 123, 1433-1442	28
1319	Dynamic simulation of knee-joint loading during gait using force-feedback control and surrogate contact modelling. 2017 , 48, 196-205	10
1318	Shoulder Strength Requirements for Upper Limb Functional Tasks: Do Age and Rotator Cuff Tear Status Matter?. 2017 , 33, 446-452	5
1317	Clinical Case: Simulation-based evaluation of post-operative gait function to support clinical decision making in cerebral palsy. 2017 , 57, 102-103	3
1316	Performance analysis of a generalized motion capture system using microsoft kinect 2.0. 2017 , 38, 265-280	33
1315	PREDICT-CP: study protocol of implementation of comprehensive surveillance to predict outcomes for school-aged children with cerebral palsy. 2017 , 7, e014950	10
1314	Musculoskeletal modelling simulation with optimisation to predict the morphological parameters of the calf muscle. 2017 , 57, 87-88	1
1313	Simulation of passive gastrocnemius muscle-tendon properties in cerebral palsy and typically developing children. 2017 , 57, 194-195	
1312	Subject-specific muscle forces derived from simulations of clinical muscle strength assessments alter estimated gait functionality in children with cerebral palsy. 2017 , 57, 197	
1311	Muscle contributions to knee extension in the early stance phase in patients with knee osteoarthritis. 2017 , 58, 88-93	6
1310	Foot structure is significantly associated to subtalar joint kinetics and mechanical energetics. 2017 , 58, 159-165	8
1309	Real-time muscle state estimation from EMG signals during isometric contractions using Kalman filters. 2017 , 111, 335-346	13
1308	How pigeons couple three-dimensional elbow and wrist motion to morph their wings. 2017 , 14,	20
1307	Long range constraints for rigid body simulations. 2017 ,	5
1306	Neural network for regression problems with reduced training sets. 2017 , 95, 1-9	32
1305	An open-source model and solution method to predict co-contraction in the finger. 2017 , 20, 1373-1381	5
1304	Interpreting Musculoskeletal Models and Dynamic Simulations: Causes and Effects of Differences Between Models. 2017 , 45, 2635-2647	11

1303	Comparison of lower limb muscle strength between diabetic neuropathic and healthy subjects using OpenSim. 2017 , 58, 194-200	10
1302	Contribution of vertical and horizontal components of ground reaction forces on global motor moment during a golf swing: a preliminary study. 2017 , 20, 29-30	1
1301	CRUX: A compliant robotic upper-extremity exosuit for lightweight, portable, multi-joint muscular augmentation. 2017 , 2017, 1633-1638	17
1300	Designing cable-driven actuation networks for kinematic chains and trees. 2017 ,	10
1299	A Subject-Specific EMG-Driven Musculoskeletal Model for the Estimation of Moments in Ankle Plantar-Dorsiflexion Movement. 2017 , 685-693	1
1298	A kinect-based workplace postural analysis system using deep residual networks. 2017 ,	5
1297	Motion Retargeting for Humanoid Robots Based on Simultaneous Morphing Parameter Identification and Motion Optimization. 2017 , 33, 1343-1357	20
1296	Kinematic Analysis of the Lolotte Technique in Rock Climbing. 2017 ,	0
1295	Subject-Specific Axes of Rotation Based on Talar Morphology Do Not Improve Predictions of Tibiotalar and Subtalar Joint Kinematics. 2017 , 45, 2109-2121	8
1294	Chimpanzee super strength and human skeletal muscle evolution. 2017 , 114, 7343-7348	28
1293	Knee joint kinematics and kinetics during the hop and cut after soft tissue artifact suppression: Time to reconsider ACL injury mechanisms?. 2017 , 62, 132-139	4
1292	A Kinect-based movement assessment system: marker position comparison to Vicon. 2017 , 20, 1289-1298	7
1291	The effect of leg dominance and landing height on ACL loading among female athletes. 2017 , 60, 181-187	23
1290	Multimodal Medical Imaging Fusion for Patient Specific Musculoskeletal Modeling of the Lumbar Spine System in Functional Posture. 2017 , 37, 739-749	6
1289	Introduction of a computer-based method for automated planning of reduction paths under consideration of simulated muscular forces. 2017 , 12, 1369-1381	6
1288	Generation of comfortable lifting motion for a human transfer assistant robot. 2017 , 1, 74-85	5
1287	Incorporating the length-dependent passive-force generating muscle properties of the extrinsic finger muscles into a wrist and finger biomechanical musculoskeletal model. 2017 , 61, 250-257	12
1286	The influence of limb alignment and transfemoral amputation technique on muscle capacity during gait. 2017 , 20, 1167-1174	11

1285	Real-time inverse kinematics for the upper limb: a model-based algorithm using segment orientations. 2017 , 16, 21	12
1284	Development of an Enhanced Musculoskeletal Model for Simulating Lumbar Spine Loading During Manual Lifting Tasks. 2017 , 229-237	1
1283	The effects of Achilles tendon compliance on triceps surae mechanics and energetics in walking. 2017 , 60, 227-231	26
1282	Errors Associated With Utilizing Prescribed Scapular Kinematics to Estimate Unconstrained, Natural Upper Extremity Motion in Musculoskeletal Modeling. 2017 , 33, 469-473	2
1281	Joint-Level Responses to Counteract Perturbations Scale with Perturbation Magnitude and Direction. 2017 , 139-142	
1280	Multidisciplinary design optimization to identify additive manufacturing resources in customized product development. 2017 , 4, 131-142	25
1279	Whole-body multi-contact motion in humans and humanoids: Advances of the CoDyCo European project. 2017 , 90, 97-117	10
1278	Subject-Specificity via 3D Ultrasound and Personalized Musculoskeletal Modeling. 2017 , 639-642	
1277	Predictive Framework of Human Locomotion Based on Neuromuscular Primitives and Modeling. 2017 , 265-269	
1276	A study on human gait dynamics: modeling and simulations on OpenSim platform. 2017 , 76, 21365-21400	3
1275	Biomechanical Effects of an Injury Prevention Program in Preadolescent Female Soccer Athletes. 2017 , 45, 294-301	34
1274	Fusion angle affects intervertebral adjacent spinal segment joint forces-Model-based analysis of patient specific alignment. 2017 , 35, 131-139	16
1273	Movement Variability and Digital Human Models: Development of a Demonstrator Taking the Effects of Muscular Fatigue into Account. 2017 , 169-179	3
1272	Application of ultrasound imaging to subject-specific modelling of the human musculoskeletal system. 2017 , 52, 665-676	14
1271	Gastrocnemius operating length with ankle foot orthoses in cerebral palsy. 2017 , 41, 274-285	6
1270	Age-Related Differences in Gait Kinematics, Kinetics, and Muscle Function: A Principal Component Analysis. 2017 , 45, 695-710	19
1269	Glenohumeral contact force during flat and topspin tennis forehand drives. 2017 , 16, 127-142	9
1268	Advanced computational workflow for the multi-scale modeling of the bone metabolic processes. 2017 , 55, 923-933	3

1267	Influence of the controller design on the accuracy of a forward dynamic simulation of human gait. 2017 , 107, 123-138		2
1266	An EMG-to-Force Processing approach for estimating in vivo hip muscle forces in normal human walking. 2017 , 25, 1172-1179		23
1265	Real-time inverse kinematics and inverse dynamics for lower limb applications using OpenSim. 2017 , 20, 436-445		29
1264	Real-Time Modeling for Lower Limb Exoskeletons. 2017 , 127-131		1
1263	A peak detection method for identifying phase in physiological signals. 2017 , 31, 452-462		3
1262	Muscle wrapping on arbitrary meshes with the heat method. 2017 , 20, 119-129		3
1261	Loading of the lumbar spine during backpack carriage. 2017 , 20, 558-565		0
1260	biomechZoo: An open-source toolbox for the processing, analysis, and visualization of biomechanical movement data. 2017 , 140, 1-10		22
1259	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	5	34
1258	Dynamic skin deformation simulation using musculoskeletal model and soft tissue dynamics. 2017 , 3, 49-60		8
1257	The influence of muscle pennation angle and cross-sectional area on contact forces in the ankle joint. 2017 , 52, 12-23		14
1256	Was Australopithecus afarensis able to make the Lomekwian stone tools? Towards a realistic biomechanical simulation of hand force capability in fossil hominins and new insights on the role of the fifth digit. 2017 , 16, 572-584		19
1255	Real-time simulation of hand motion for prosthesis control. 2017 , 20, 540-549		27
1254	To what extent is joint and muscle mechanics predicted by musculoskeletal models sensitive to soft tissue artefacts?. 2017 , 62, 68-76		20
1253	Dependence of Muscle Moment Arms on In Vivo Three-Dimensional Kinematics of the Knee. 2017 , 45, 789-798		25
1252	Cycling with Spinal Cord Injury: A Novel System for Cycling Using Electrical Stimulation for Individuals with Paraplegia, and Preparation for Cybathlon 2016. 2017 , 24, 58-65		15
1251	Musculoskeletal model for simultaneous and proportional control of 3-DOF hand and wrist movements from EMG signals. 2017 ,		8
1250	Effects of ellipsoid parameters on scapula motion during manual wheelchair propulsion based on multibody kinematics optimization. A preliminary study. 2017 , 20, 107-108		2

1249	Tracking the scapula motion through multibody kinematics optimisation to study manual wheelchair propulsion. 2017 , 20, 171-172	0
1248	Quantifying performance of bipedal standing with multi-channel EMG. 2017 ,	2
1247	Knee Joint Biomechanics for Various Ambulatory Exercises Using Inverse Dynamics in OpenSim. 2017 ,	1
1246	Simulating the impact of sensorimotor deficits on reaching performance. 2017 , 2017, 31-37	7
1245	RGB-D human posture analysis for ergonomie studies using deep convolutional neural network. 2017 ,	8
1244	Modeling and analysis of individual with lower extremity amputation locomotion using prosthetic feet and running-specific prostheses. 2017 , 2017, 901-904	
1243	Subject-specific shoulder muscle attachment region prediction using statistical shape models: A validity study. 2017 , 2017, 1640-1643	1
1242	Ankle Joint Moment Estimation Based on Smart Shoes * *This work was supported by Hyundai Motors Company.. 2017 , 50, 1366-1371	3
1241	Design of a Robotic Knee Assistive Device (ROKAD) for Slip-Induced Fall Prevention during Walking. 2017 , 50, 9802-9807	4
1240	Subtalar Joint Pronation and Energy Absorption Requirements During Walking are Related to Tibialis Posterior Tendinous Tissue Strain. 2017 , 7, 17958	11
1239	Construction and validation of a three-dimensional trunk musculoskeletal model by using data from Computed Tomography (CT) and Magnetic Resonance Imaging (MRI). 2017 , 83, 16-00318-16-00318	5
1238	Multiscale decoding for reliable brain-machine interface performance over time. 2017 , 2017, 197-200	3
1237	Training a classifier for activity recognition using body motion simulation. 2017 ,	
1236	Computational stability of human knee joint at early stance in Gait: Effects of muscle coactivity and anterior cruciate ligament deficiency. 2017 , 63, 110-116	14
1235	EMG-driven model-based knee torque estimation on a variable impedance actuator orthosis. 2017 ,	5
1234	Modeling and simulation of hand based on opensim and leap motion. 2017 ,	1
1233	Muscle control of fore-aft and vertical body center of mass accelerations of human slip recovery gait: A simulation study using wearable sensor shoes. 2017 ,	1
1232	Learning of active binocular vision in a biomechanical model of the oculomotor system. 2017 ,	4

1231	Robot hand learning from multiple demonstrations using dynamics motor primitives. 2017,	1
1230	Identifying invariant gait metrics for exoskeleton assistance. 2017,	2
1229	Proprioceptive postural control of a musculoskeletal model against horizontal disturbances. 2017,	1
1228	. 2017,	1
1227	Using high-throughput computing for dynamic simulation of bipedal walking. 2017,	
1226	Closed-loop EMG-informed model-based analysis of human musculoskeletal mechanics on rough terrains. 2017, 2017, 364-368	3
1225	. 2017,	7
1224	Capturing prosthetic socket fitment: Preliminary results using an ultrasound-based device. 2017, 2017, 1221-1226	1
1223	Simulating eye-head coordination during smooth pursuit using an ocular biomechanic model. 2017,	4
1222	The History of Biomechanics in Total Hip Arthroplasty. 2017, 51, 359-367	14
1221	Real-Time Gait Event Detection Based on Kinematic Data Coupled to a Biomechanical Model. 2017, 17,	19
1220	Avoiding deleterious effects of exoskeletal assistance in people with Stiff-Knee Gait after stroke. 2017,	1
1219	A 3D Human-Machine Integrated Design and Analysis Framework for Squat Exercises with a Smith Machine. 2017, 17,	8
1218	Optimal Control Based Stiffness Identification of an Ankle-Foot Orthosis Using a Predictive Walking Model. 2017, 11, 23	10
1217	Hammering Does Not Fit Fitts' Law. 2017, 11, 45	2
1216	Bioinspired Technologies to Connect Musculoskeletal Mechanobiology to the Person for Training and Rehabilitation. 2017, 11, 96	28
1215	The Differential Effect of Arm Movements during Gait on the Forward Acceleration of the Centre of Mass in Children with Cerebral Palsy and Typically Developing Children. 2017, 11, 96	6
1214	On the Value of Estimating Human Arm Stiffness during Virtual Teleoperation with Robotic Manipulators. 2017, 11, 528	10

1213	Effects of Gait Speed of Femoroacetabular Joint Forces. 2017 , 2017, 6432969	8
1212	Estimation of Individual Muscular Forces of the Lower Limb during Walking Using a Wearable Sensor System. 2017 , 2017, 1-14	4
1211	Implementation of Human-Like Joint Stiffness in Robotics Hands for Improved Manipulation. 2017 , 3-35	
1210	Cervical Spine Injuries: A Whole-Body Musculoskeletal Model for the Analysis of Spinal Loading. 2017 , 12, e0169329	43
1209	Muscle contributions to medial tibiofemoral compartment contact loading following ACL reconstruction using semitendinosus and gracilis tendon grafts. 2017 , 12, e0176016	20
1208	Simulated impacts of ankle foot orthoses on muscle demand and recruitment in typically-developing children and children with cerebral palsy and crouch gait. 2017 , 12, e0180219	9
1207	Simulating ideal assistive devices to reduce the metabolic cost of walking with heavy loads. 2017 , 12, e0180320	61
1206	Muscle function in glenohumeral joint stability during lifting task. 2017 , 12, e0189406	14
1205	Quadriceps force and anterior tibial force occur obviously later than vertical ground reaction force: a simulation study. 2017 , 18, 467	7
1204	Skeletal muscle mechanics, energetics and plasticity. 2017 , 14, 108	61
1203	Towards evidence based strength training: a comparison of muscle forces during deadlifts, goodmornings and split squats. 2017 , 9, 13	9
1202	Are mice good models for human neuromuscular disease? Comparing muscle excursions in walking between mice and humans. 2017 , 7, 26	30
1201	A gesture database of B-mode ultrasound-based human-machine interface. 2017 ,	2
1200	Relationship between Hip Flexion Contracture and Hip-Joint Contact Force in Standing Posture: A Computer Simulation Study. 2017 , 07,	1
1199	A Review of Computational Musculoskeletal Analysis of Human Lower Extremities. 2017 , 37-73	8
1198	FRANK. 2017 , 413-447	16
1197	Exploring novel objective functions for simulating muscle coactivation in the neck. 2018 , 71, 127-134	5
1196	Use of the surface electromyography for a quantitative trend validation of estimated muscle forces. 2018 , 38, 243-250	9

1195	Closure to Discussion of A Review of Intent Detection, Arbitration, and Communication Aspects of Shared Control for Physical Human-Robot Interaction [Losey, D. P., McDonald, C. G., Battaglia, E., and O'Malley, M.K., 2018, ASME Appl. Mech. Rev., 70(1), p. 010804]. 2018 , 70,		
1194	The different role of each head of the triceps brachii muscle in elbow extension. 2018 , 52, 201-205		11
1193	The Immediate Effect of Foot Orthoses on Subtalar Joint Mechanics and Energetics. 2018 , 50, 1449-1456		10
1192	A computational framework for simultaneous estimation of muscle and joint contact forces and body motion using optimization and surrogate modeling. 2018 , 54, 56-64		7
1191	Lower-limb muscle function during gait in varus mal-aligned osteoarthritis patients. 2018 , 36, 2157		2
1190	The impact of hip implant alignment on muscle and joint loading during dynamic activities. 2018 , 53, 93-100		16
1189	Force Closure Mechanism Modeling for Musculoskeletal Multibody Simulation. <i>IEEE Transactions on Biomedical Engineering</i> , 2018 , 65, 2471-2482	5	5
1188	Predictive Simulations of Neuromuscular Coordination and Joint-Contact Loading in Human Gait. 2018 , 46, 1216-1227		24
1187	Strategies of Parkour practitioners for executing soft precision landings. 2018 , 36, 2551-2557		7
1186	Gradient-based optimization with B-splines on sparse grids for solving forward-dynamics simulations of three-dimensional, continuum-mechanical musculoskeletal system models. 2018 , 34, e2965		9
1185	Differences in in vivo muscle fascicle and tendinous tissue behavior between the ankle plantarflexors during running. 2018 , 28, 1828-1836		32
1184	Calculation of muscle forces and joint reaction loads in the shoulder area via an OpenSim based computer model. 2018 , 85, 321-330		1
1183	An ocular biomechanic model for dynamic simulation of different eye movements. 2018 , 71, 208-216		20
1182	The MusIC method: a fast and quasi-optimal solution to the muscle forces estimation problem. 2018 , 21, 149-160		2
1181	The Effects of Filter Cutoff Frequency on Musculoskeletal Simulations of High-Impact Movements. 2018 , 34, 336-341		8
1180	Finite Element Analysis Applications in Biomechanical Studies of the Knee Joint. 2018 , 35-60		
1179	Bio-inspired controller achieving forward speed modulation with a 3D bipedal walker. 2018 , 37, 168-196		21
1178	Simulating the effect of muscle weakness and contracture on neuromuscular control of normal gait in children. 2018 , 61, 169-175		21

1177	Energy Harvesting and Sensing with Embedded Piezoelectric Ceramics in Knee Implants. 2018 , 23, 864-874	45
1176	Uncertainty in Limb Configuration Makes Minimal Contribution to Errors Between Observed and Predicted Forces in a Musculoskeletal Model of the Rat Hindlimb. <i>IEEE Transactions on Biomedical Engineering</i> , 2018 , 65, 469-476	5 2
1175	Non-knee-spanning muscles contribute to tibiofemoral shear as well as valgus and rotational joint reaction moments during unanticipated sidestep cutting. 2018 , 8, 2501	30
1174	Movement Strategies for Countermovement Jumping are Potentially Influenced by Elastic Energy Stored and Released from Tendons. 2018 , 8, 2300	13
1173	Simplifying Telerobotics: Wearability and Teleimpedance Improves Human-Robot Interactions in Teleoperation. 2018 , 25, 77-88	24
1172	Longitudinal joint loading in patients before and up to one year after unilateral total hip arthroplasty. 2018 , 61, 117-124	22
1171	Vertical Jump Height Estimation Algorithm Based on Takeoff and Landing Identification Via Foot-Worn Inertial Sensing. 2018 , 140,	3
1170	Semitendinosus and patellar tendons shear modulus evaluation by supersonic shearwave imaging elastography. 2018 , 38, 959	4
1169	In vivo comparison of medialized dome and anatomic patellofemoral geometries using subject-specific computational modeling. 2018 , 36, 1910-1918	7
1168	Stresses and strains on the human fetal skeleton during development. 2018 , 15,	35
1167	FEM Analysis of the Human Knee Joint. 2018 ,	4
1166	Forces Generated by Vastus Lateralis and Vastus Medialis Decrease with Increasing Stair Descent Speed. 2018 , 46, 579-589	2
1165	A computer vision based method for 3D posture estimation of symmetrical lifting. 2018 , 69, 40-46	29
1164	Age Influences Biomechanical Changes After Participation in an Anterior Cruciate Ligament Injury Prevention Program. 2018 , 46, 598-606	13
1163	Effect of tibia marker placement on knee joint kinematic analysis. 2018 , 60, 99-103	7
1162	Evaluation and validation of musculoskeletal force feasible set indices: Application to manual wheelchair propulsion. 2018 , 68, 70-77	3
1161	Does a two-element muscle model offer advantages when estimating ankle plantar flexor forces during human cycling?. 2018 , 68, 6-13	10
1160	Concurrent prediction of ground reaction forces and moments and tibiofemoral contact forces during walking using musculoskeletal modelling. 2018 , 52, 31-40	16

1159	Perspectives on Sharing Models and Related Resources in Computational Biomechanics Research. 2018 , 140,	8
1158	Dynamic Musculoskeletal Functional Morphology: Integrating diceCT and XROMM. 2018 , 301, 378-406	26
1157	Closed-loop control of trunk posture improves locomotion through the regulation of leg proprioceptive feedback after spinal cord injury. 2018 , 8, 76	21
1156	Sensitivity of intervertebral joint forces to center of rotation location and trends along its migration path. 2018 , 70, 140-148	13
1155	Lumbar loads and trunk kinematics in people with a transtibial amputation during sit-to-stand. 2018 , 69, 1-9	12
1154	An extended OpenSim knee model for analysis of strains of connective tissues. 2018 , 17, 42	7
1153	Tibial Osteotomy as a Mechanical Model of Primary Osteoarthritis in Rats. 2018 , 8, 5132	3
1152	Relationship between knee joint contact forces and external knee joint moments in patients with medial knee osteoarthritis: effects of gait modifications. 2018 , 26, 1203-1214	57
1151	Effect of shoulder model complexity in upper-body kinematics analysis of the golf swing. 2018 , 75, 154-158	9
1150	Strength of Interference Screw Fixation to Cuboid vs Pulvertaft Weave to Peroneus Brevis for Tibialis Posterior Tendon Transfer for Foot Drop. 2018 , 39, 858-864	7
1149	Investigation of the dependence of joint contact forces on musculotendon parameters using a codified workflow for image-based modelling. 2018 , 73, 108-118	43
1148	Active muscle response contributes to increased injury risk of lower extremity in occupant-knee airbag interaction. 2018 , 19, S76-S82	9
1147	Effects of barefoot and shod running on lower extremity joint loading, a musculoskeletal simulation study. 2018 , 14, 485-494	3
1146	Numerical validation of a subject-specific parameter identification approach of a quadriceps femoris EMG-driven model. 2018 , 53, 66-74	5
1145	Altered lower extremity joint mechanics occur during the star excursion balance test and single leg hop after ACL-reconstruction in a collegiate athlete. 2018 , 21, 344-358	4
1144	A Review on Ocular Biomechanic Models for Assessing Visual Fatigue in Virtual Reality. 2018 , 6, 19345-19361	32
1143	Muscle-tendon length and force affect human tibialis anterior central aponeurosis stiffness in vivo. 2018 , 115, E3097-E3105	26
1142	An Interactive Simulator for Imposing Virtual Musculoskeletal Dynamics. <i>IEEE Transactions on Biomedical Engineering</i> , 2018 , 65, 539-549	5 4

1141	Robust Real-Time Musculoskeletal Modeling Driven by Electromyograms. <i>IEEE Transactions on Biomedical Engineering</i> , 2018 , 65, 556-564	5	54
1140	Shoulder kinetics during start-up and propulsion with a manual wheelchair within the initial phase of uninstructed training. 2018 , 13, 40-46		2
1139	Influence of Shoulder Kinematic Estimate on Joint and Muscle Mechanics Predicted by Musculoskeletal Model. <i>IEEE Transactions on Biomedical Engineering</i> , 2018 , 65, 715-722	5	16
1138	Effects of motion segment simulation and joint positioning on spinal loads in trunk musculoskeletal models. 2018 , 70, 149-156		30
1137	Predicting muscle forces during the propulsion phase of single leg triple hop test. 2018 , 59, 298-303		9
1136	Increased sensory noise and not muscle weakness explains changes in non-stepping postural responses following stance perturbations in healthy elderly. 2018 , 59, 122-127		8
1135	Hip movement pathomechanics of patients with hip osteoarthritis aim at reducing hip joint loading on the osteoarthritic side. 2018 , 59, 11-17		25
1134	The effects of conventional and oval chainrings on patellofemoral loading during road cycling: an exploration using musculoskeletal simulation. 2018 , 14, 61-70		2
1133	A methodological framework for detecting ulcers' risk in diabetic foot subjects by combining gait analysis, a new musculoskeletal foot model and a foot finite element model. 2018 , 60, 279-285		17
1132	Modeling Robot Geometries Like Molecules, Application to Fast Multicontact Posture Planning for Humanoids. 2018 , 3, 289-296		2
1131	Dynamically tensioned ACL functional knee braces reduce ACL and meniscal strain. 2018 , 26, 526-533		5
1130	Biomechanical consequences of running with deep core muscle weakness. 2018 , 67, 98-105		17
1129	Estimated landmark calibration of biomechanical models for inverse kinematics. 2018 , 51, 79-83		7
1128	Approach for gait analysis in persons with limb loss including residuum and prosthesis socket dynamics. 2018 , 34, e2936		15
1127	Subject-specific finite element modelling of the human foot complex during walking: sensitivity analysis of material properties, boundary and loading conditions. 2018 , 17, 559-576		37
1126	Neuromuscular compensatory strategies at the trunk and lower limb are not resolved following an ACL reconstruction. 2018 , 60, 81-87		4
1125	Effect of a prehop on the muscle-tendon interaction during vertical jumps. 2018 , 124, 1203-1211		6
1124	An EMG-marker tracking optimisation method for estimating muscle forces. 2018 , 42, 119-143		15

1123	Effect of plantar flexion resistance of ankle-foot orthosis on tendon length during gait. 2018,	
1122	Adaptive CPG-Based Impedance Control for Assistive Lower Limb Exoskeleton. 2018,	6
1121	Wrist Kinematics and Kinetics during Wheelchair Propulsion with a Novel Handle-based Propulsion Mechanism. 2018, 2018, 2146-2149	1
1120	A Low Cost Anthropometric Body Scanning System Using Depth Cameras. 2018,	2
1119	Learning Coordinated Vehicle Maneuver Motion Primitives from Human Demonstration. 2018,	3
1118	Augmented Modeling of a Lower Limb Assistant Robot and Human Body. 2018,	1
1117	Patellofemoral Pain Syndrome: Sensitivity Analysis of Muscle Parameters for Expedited Recovery Utilizing an OpenSim Model for Lower Extremities. 2018,	
1116	Optimizing Contextual Ergonomics Models in Human-Robot Interaction. 2018,	13
1115	A Musculoskeletal Model of Upper Limb for Disabled Extremity. 2018,	
1114	Triangle and Trapezoid Area Features for Gait Authentication. 2018,	
1113	Examination of Interlimb Coordination of Human Asymmetrical Gait. 2018,	0
1112	State Estimation of a Muscle-Driven Linkage. 2018,	
1111	Patellofemoral joint alignment is a major risk factor for recurrent patellar dislocation in children and adolescents: a systematic review. 2018, 3, 287-297	1
1110	Neurorobotic Approach to Study Huntington Disease Based on a Mouse Neuromusculoskeletal Model. 2018,	1
1109	Inverse Kinematic Assessment of Rehabilitative Therapy in Children Using Orthotics. 2018, 2018, 2813-2816	
1108	Can forward dynamics simulation with simple model estimate complex phenomena?: Case study on sprinting using running-specific prosthesis. 2018, 5,	4
1107	. 2018,	2
1106	EFFECTS OF A CLOSED-LOOP PARTIAL POWER ASSISTANCE ON MANUAL WHEELCHAIR LOCOMOTION. 2018, 51, 350-354	0

1105	Kinect Camera Based Gait Data Recording and Analysis for Assistive Robotics-An Alternative to Goniometer Based Measurement Technique. 2018 , 133, 763-771	8
1104	Validation of a model-based inverse kinematics approach based on wearable inertial sensors. 2018 , 21, 834-844	6
1103	Interspecies Retargeting of Homologous Body Posture Based on Skeletal Morphing. 2018 ,	
1102	Gait Analysis for Muscular Forces Evaluation in Human Movement: Integration Protocol of Typical Measurement Methods. 2018 ,	1
1101	Load exposure of osseointegrated implants for transfemoral limb prosthesis during running. 2018 , 2018, 1743-1746	3
1100	Assessment of a markerless motion analysis system for manual wheelchair application. 2018 , 15, 96	4
1099	In vivo relationship between joint stiffness, joint-based estimates of muscle stiffness, and shear-wave velocity. 2018 , 2018, 1468-1471	2
1098	Musculoskeletal Simulation for Determining Influences of the Magnitude of Sensory Noise and Stiffness on the Selection of Hip or Ankle Movement Strategies. 2018 , 2018, 1735-1738	
1097	Research on Passive Stride Assist Based on the Metabolism of Hip Muscles. 2018 ,	
1096	Research on Passive Assist of Hip Joint Based on Muscle Metabolism. 2018 ,	
1095	Limb Kinematics, Kinetics and Muscle Dynamics During the Sit-to-Stand Transition in Greyhounds. 2018 , 6, 162	10
1094	Comparison between kinetic and kinetic-kinematic driven knee joint finite element models. 2018 , 8, 17351	13
1093	Self-Powered Multifunctional Instrumented Knee Implant. 2018 ,	1
1092	Metabolic cost underlies task-dependent variations in motor unit recruitment. 2018 , 15,	6
1091	Estimation of compressive tibiofemoral force using over resistance of ankle-foot orthosis on gait. 2018 , 2018, 2056-2059	
1090	Developing Support Technologies. 2018 ,	2
1089	Tibiofemoral joint contact forces increase with load magnitude and walking speed but remain almost unchanged with different types of carried load. 2018 , 13, e0206859	15
1088	Estimating the effect size of surgery to improve walking in children with cerebral palsy from retrospective observational clinical data. 2018 , 8, 16344	8

1087	On the Validity of Different Motion Capture Technologies for the Analysis of Running. 2018,	4
1086	On Muscle Activation for Improving Robotic Rehabilitation after Spinal Cord Injury. 2018,	0
1085	Similarities and differences between musculoskeletal simulations of OpenSim and AnyBody modeling system. 2018, 32, 6037-6044	5
1084	Multiscale computational model of Achilles tendon wound healing: Untangling the effects of repair and loading. 2018, 14, e1006652	12
1083	A spasticity model based on feedback from muscle force explains muscle activity during passive stretches and gait in children with cerebral palsy. 2018, 13, e0208811	18
1082	Musculoskeletal modeling of human lower limbs for stand-to-sit transfer assistance of robotic wheelchair. 2018,	
1081	The impact of thigh and shank marker quantity on lower extremity kinematics using a constrained model. 2018, 19, 399	8
1080	A Linear Approach to Optimize an EMG-Driven Neuromusculoskeletal Model for Movement Intention Detection in Myo-Control: A Case Study on Shoulder and Elbow Joints. 2018, 12, 74	28
1079	Effect of hip joint angle at seat-off on hip joint contact force during sit-to-stand movement: a computer simulation study. 2018, 17, 177	3
1078	Novel metaballs-driven approach with dynamic constraints for character articulation. 2018, 61, 1	1
1077	Evaluation of the accuracy of musculoskeletal simulation during squats by means of instrumented knee prostheses. 2018, 61, 95-99	17
1076	Lower extremity joint-level responses to pelvis perturbation during human walking. 2018, 8, 14621	23
1075	Learning Continuous Muscle Control for a Multi-joint Arm by Extending Proximal Policy Optimization with a Liquid State Machine. 2018, 211-221	5
1074	THE EFFECTS OF SCOLIOSIS ON SPINAL MUSCLES LENGTH AND JOINT CONTACT FORCES. 2018, 18, 1850022	
1073	A subject-specific integrative biomechanical framework of the pelvis for gait analysis. 2018, 232, 1083-1097	0
1072	Lower limb muscle co-contraction and joint loading of flip-flops walking in male wearers. 2018, 13, e0193653	11
1071	Building a Bird: Musculoskeletal Modeling and Simulation of Wing-Assisted Incline Running During Avian Ontogeny. 2018, 6, 140	5
1070	Multilayered Kinodynamics Simulation for Detailed Whole-Body Motion Generation and Analysis. 2018,	4

1069	Inverse dynamics of mechanical multibody systems: An improved algorithm that ensures consistency between kinematics and external forces. 2018 , 13, e0204575	15
1068	Generating Assistive Humanoid Motions for Co-Manipulation Tasks with a Multi-Robot Quadratic Program Controller. 2018 ,	11
1067	The NIPS '17 Competition: Building Intelligent Systems. 2018 ,	3
1066	Introduction to NIPS 2017 Competition Track. 2018 , 1-23	
1065	Bio-Inspired Tensegrity Flexural Joints. 2018 ,	3
1064	Projection of anthropometric correlation for virtual population modelling. 2018 , 6, 16	2
1063	A musculoskeletal model of the hand and wrist: model definition and evaluation. 2018 , 21, 548-557	12
1062	Refining muscle geometry and wrapping in the TLEM 2 model for improved hip contact force prediction. 2018 , 13, e0204109	28
1061	Modeling a rotator cuff tear: Individualized shoulder muscle forces influence glenohumeral joint contact force predictions. 2018 , 60, 20-29	13
1060	Impact of gait analysis (GA) on treatment appropriateness in stroke patients with stiff knee gait. 2018 , 66, S27-S28	
1059	A subject-specific musculoskeletal model to estimate joint loading at different walking speeds. 2018 , 66, S28	2
1058	Gait events estimation using inertial wearable sensors while walking in water. 2018 , 66, S28-S29	
1057	Force feasible set prediction with artificial neural network and musculoskeletal model. 2018 , 21, 740-749	6
1056	Musculoskeletal Simulation and Evaluation of Support System Designs. 2018 , 219-227	6
1055	Estimation of vastus intermedius electromyography: Comparison of three methods and their impact on the knee isometric extension moment predicted by an EMG-Driven model. 2018 , 26, 299-306	0
1054	A Novel Ultrasound-Based Lower Extremity Motion Tracking System. 2018 , 1093, 131-142	1
1053	Estimation of Phantom Limb Musculoskeletal Mechanics After Targeted Muscle Reinnervation: Towards Online Model-Based Control of Myoelectric Bionic Limbs* Resrach supported by ERC Advanced Grant DEMOVE (267888).. 2018 ,	0
1052	The Retrainer Light-Weight Arm Exoskeleton: Effect of Adjustable Gravity Compensation on Muscle Activations and Forces. 2018 ,	6

1051	Optimal Control Parameterization for Active/Passive EXoskeleton with Variable Impedance Actuator. 2018,	2
1050	Lower limb musculoskeletal stiffness analysis during swing phase as a cable-driven serial chain system. 2018,	0
1049	Estimation of knee joint reaction force based on the plantar flexion resistance of an ankle-foot orthosis during gait. 2018, 30, 966-970	4
1048	Electrical spinal cord stimulation must preserve proprioception to enable locomotion in humans with spinal cord injury. 2018, 21, 1728-1741	138
1047	Interaction between muscle tone, short-range stiffness and increased sensory feedback gains explains key kinematic features of the pendulum test in spastic cerebral palsy: A simulation study. 2018, 13, e0205763	6
1046	Quantifying the physical intensity of construction workers, a mechanical energy approach. 2018, 38, 404-419	20
1045	Functional deficits may be explained by plantarflexor remodeling following Achilles tendon rupture repair: Preliminary findings. 2018, 79, 238-242	21
1044	Robust simultaneous myoelectric control of multiple degrees of freedom in wrist-hand prostheses by real-time neuromusculoskeletal modeling. 2018, 15, 066026	60
1043	Machine learning in human movement biomechanics: Best practices, common pitfalls, and new opportunities. 2018, 81, 1-11	138
1042	Neuromuscular Modeling. 2018, 167-205	
1041	Analysis of grip and pinch strength using inverse dynamics simulation technique. 2018, 232, 1063-1070	
1040	Reliability of joint kinematic calculations based on direct kinematic and inverse kinematic models in obese children. 2018, 66, 201-207	4
1039	Subject-specific calibration of neuromuscular parameters enables neuromusculoskeletal models to estimate physiologically plausible hip joint contact forces in healthy adults. 2018, 80, 111-120	28
1038	Power in sports: A literature review on the application, assumptions, and terminology of mechanical power in sport research. 2018, 79, 1-14	13
1037	On the coordination of highly dynamic human movements: an extension of the Uncontrolled Manifold approach applied to precision jump in parkour. 2018, 8, 12219	7
1036	Improved ergonomic risk factor assessment using opensim and inertial measurement units. 2018,	2
1035	A Study on Human Gait Kinematic Validation in Multi-Kinect v2 Environment. 2018,	1
1034	Pelvic Construct Prediction of Trabecular and Cortical Bone Structural Architecture. 2018, 140,	9

1033	Geometric models to explore mechanisms of dynamic shape change in skeletal muscle. 2018 , 5, 172371	12
1032	Acute changes in foot strike pattern and cadence affect running parameters associated with tibial stress fractures. 2018 , 76, 1-7	35
1031	Hip- and patellofemoral-joint loading during gait are increased in children with idiopathic torsional deformities. 2018 , 63, 228-235	18
1030	OpenSim as a preliminary kinematic testing platform for the development of total knee arthroplasty implants. 2018 , 76, 53-60	2
1029	Ultrasound Technology for Examining the Mechanics of the Muscle, Tendon, and Ligament. 2018 , 157-176	
1028	Simulated work loops predict maximal human cycling power. 2018 , 221,	7
1027	Transverse anisotropy in the deformation of the muscle during dynamic contractions. 2018 , 221,	9
1026	Prediction of Knee Joint Contact Forces From External Measures Using Principal Component Prediction and Reconstruction. 2018 , 34, 419-423	1
1025	OpenSim Versus Human Body Model: A Comparison Study for the Lower Limbs During Gait. 2018 , 1-7	16
1024	O 037 Estimating musculotendon forces in children with cerebral palsy: The importance of the use of electromyography in neuromusculoskeletal modelling. 2018 , 65, 76-77	0
1023	Estimation of the Body Segment Inertial Parameters for the Rigid Body Biomechanical Models Used in Motion Analysis. 2018 , 47-77	1
1022	Dynamic spasticity determines hamstring length and knee flexion angle during gait in children with spastic cerebral palsy. 2018 , 64, 255-259	10
1021	Towards Subject-Specific Strength Training Design through Predictive Use of Musculoskeletal Models. 2018 , 2018, 9721079	3
1020	Development of a dynamic index finger and thumb model to study impairment. 2018 , 77, 206-210	7
1019	Biomechatronic design criteria of systems for robot-mediated rehabilitation therapy. 2018 , 29-46	9
1018	Estimation of muscle activation during different walking speeds with two mathematical approaches compared to surface EMG. 2018 , 64, 266-273	11
1017	O 104 - MRI-based musculoskeletal models for the quantification of gait in children with Juvenile Idiopathic Arthritis. 2018 , 65, 216-218	1
1016	Loading and kinematic profiles for patellofemoral durability testing. 2018 , 86, 305-313	2

1015	The inclusion of hyoid muscles improve moment generating capacity and dynamic simulations in musculoskeletal models of the head and neck. 2018 , 13, e0199912	32
1014	A hierarchy in functional muscle roles at the knee is influenced by sex and anterior cruciate ligament deficiency. 2018 , 57, 129-136	8
1013	Peak ACL force during jump landing in downhill skiing is less sensitive to landing height than landing position. 2018 , 52, 1086-1090	6
1012	Modification of a three-compartment muscle fatigue model to predict peak torque decline during intermittent tasks. 2018 , 77, 16-25	15
1011	Prediction of Perceived Steering Wheel Operation Force by Muscle Activity. 2018 , 11, 590-598	3
1010	Upper Extremity Models for Clinical Movement Analysis. 2018 , 583-606	
1009	Wheelchair propulsion: Force orientation and amplitude prediction with Recurrent Neural Network. 2018 , 78, 166-171	4
1008	Modulation of gluteus medius activity reflects the potential of the muscle to meet the mechanical demands during perturbed walking. 2018 , 8, 11675	10
1007	Interaction Force Modeling for Joint Misalignment Minimization Toward Bio-Inspired Knee Exoskeleton Design. 2018 ,	3
1006	Estimation of Vertical Ground Reaction Forces and Sagittal Knee Kinematics During Running Using Three Inertial Sensors. 2018 , 9, 218	66
1005	Effectively Quantifying the Performance of Lower-Limb Exoskeletons Over a Range of Walking Conditions. 2018 , 5, 61	14
1004	Oncilla Robot: A Versatile Open-Source Quadruped Research Robot With Compliant Pantograph Legs. 2018 , 5, 67	18
1003	The influence of maximum isometric muscle force scaling on estimated muscle forces from musculoskeletal models of children with cerebral palsy. 2018 , 65, 213-220	21
1002	OpenSim: Simulating musculoskeletal dynamics and neuromuscular control to study human and animal movement. 2018 , 14, e1006223	274
1001	Computation of the role of kinetics, kinematics, posterior tibial slope and muscle cocontraction on the stability of ACL-deficient knee joint at heel strike - Towards identification of copers from non-copers. 2018 , 77, 171-182	11
1000	Long-term hip loading in unilateral total hip replacement patients is no different between limbs or compared to healthy controls at similar walking speeds. 2018 , 80, 8-15	8
999	Effects of a prophylactic knee bracing on patellofemoral loading during cycling. 2018 , 14, 645-654	2
998	A subject-specific finite element musculoskeletal framework for mechanics analysis of a total knee replacement. 2018 , 77, 146-154	30

997	Potential of muscles to accelerate the body during late-stance forward progression in individuals with knee osteoarthritis. 2018 , 61, 109-116	2
996	Altered Walking and Muscle Patterns Reduce Hip Contact Forces in Individuals With Symptomatic Cam Femoroacetabular Impingement. 2018 , 46, 2615-2623	24
995	A Subject-Specific Kinematic Model to Predict Human Motion in Exoskeleton-Assisted Gait. 2018 , 12, 18	14
994	PyMUS: Python-Based Simulation Software for Virtual Experiments on Motor Unit System. 2018 , 12, 15	4
993	A Soft Exosuit for Flexible Upper-Extremity Rehabilitation. 2018 , 26, 1604-1617	46
992	O 103 [Dynamic knee and hip joint loads after total hip replacement [Inverse dynamics (Vicon) vs. musculoskeletal modeling (OpenSim). 2018 , 65, 214-215	
991	The interaction of muscle moment arm, knee laxity, and torque in a multi-scale musculoskeletal model of the lower limb. 2018 , 76, 173-180	15
990	Computational optimization of graft tension in simulated superior capsule reconstructions. 2018 , 36, 2789-2796	5
989	O 107 [Impact of subject-specific musculoskeletal geometry on estimated joint kinematics, joint kinetics and muscle forces in typically developing children. 2018 , 65, 223-225	2
988	An Auto-Calibrating Knee Flexion-Extension Axis Estimator Using Principal Component Analysis with Inertial Sensors. 2018 , 18,	27
987	Modeling and Simulating Astronaut[Performance in a Three-Level Architecture. 2018 , 713-724	
986	Compliant orthoses for repositioning of knee joint based on super-elasticity of shape memory alloys. 2018 , 29, 3136-3150	5
985	Biomechanics and energetics of walking in powered ankle exoskeletons using myoelectric control versus mechanically intrinsic control. 2018 , 15, 42	27
984	A metabolic energy expenditure model with a continuous first derivative and its application to predictive simulations of gait. 2018 , 21, 521-531	22
983	Altered biomechanical stimulation of the developing hip joint in presence of hip dysplasia risk factors. 2018 , 78, 1-9	16
982	A Dynamic Simulation of Musculoskeletal Function in the Mouse Hindlimb During Trotting Locomotion. 2018 , 6, 61	20
981	The Potential of Digital Technology to Improve Self-Care for Musculoskeletal Conditions. 2018 , 6, 45-48	
980	Reachset Conformance Testing of Human Arms with a Biomechanical Model. 2018 ,	3

979	Sex differences in kinematic adaptations to muscle fatigue induced by repetitive upper limb movements. 2018 , 9, 17	15
978	Effect of wearing a knee brace or sleeve on the knee joint and anterior cruciate ligament force during drop jumps: A clinical intervention study. 2018 , 25, 1009-1015	8
977	Indirect Measurement of Ground Reaction Forces and Moments by Means of Wearable Inertial Sensors: A Systematic Review. 2018 , 18,	86
976	Individual muscle contributions to tibiofemoral compressive articular loading during walking, running and sidestepping. 2018 , 80, 23-31	9
975	Biomechanical design analysis and experiments evaluation of a passive knee-assisting exoskeleton for weight-climbing. 2018 , 45, 436-445	7
974	Development and validation of a muscle wrapping model applied to intact and reverse total shoulder arthroplasty shoulders. 2018 , 36, 3308-3317	6
973	Co-contraction around the knee and the ankle joints during post-stroke gait. 2018 , 54, 380-387	10
972	Designing a backstepping sliding mode controller for an assistant human knee exoskeleton based on nonlinear disturbance observer. 2018 , 54, 121-132	22
971	Three-dimensional kinematics and the origin of the hominin walking stride. 2018 , 15,	16
970	Dexterous manipulation and control with volumetric muscles. 2018 , 37, 1-13	23
969	Sensitivity analysis of the estimated muscle forces during gait with respect to the musculoskeletal model parameters and dynamic simulation techniques. 2018 ,	10
968	Risk factors identification and visualization for work-related musculoskeletal disorders with wearable and connected gait analytics system and kinect skeleton models. 2018 , 7-8, 60-77	11
967	The influence of foot hyperpronation on pelvic biomechanics during stance phase of the gait: A biomechanical simulation study. 2018 , 232, 708-717	2
966	Can Strain Dependent Inhibition of Cross-Bridge Binding Explain Shifts in Optimum Muscle Length?. 2018 , 58, 174-185	12
965	Muscle-tendon unit length changes differ between young and adult sprinters in the first stance phase of sprint running. 2018 , 5, 180332	4
964	Spasticity Assessment in Cerebral Palsy. 2018 , 1-16	
963	The effect of subject measurement error on joint kinematics in the conventional gait model: Insights from the open-source pyCGM tool using high performance computing methods. 2018 , 13, e0189984	10
962	How does patellar tendon advancement alter the knee extensor mechanism in children treated for crouch gait?. 2018 , 64, 248-254	8

961	Musculoskeletal Modeling. 2018 , 257-277		1
960	Spinal Muscles. 2018 , 141-166		
959	Fall detection without people: A simulation approach tackling video data scarcity. 2018 , 112, 125-137		13
958	Mechanical Loading of the Femoral Neck in Human Locomotion. 2018 , 33, 1999-2006		33
957	Greater magnitude tibiofemoral contact forces are associated with reduced prevalence of osteochondral pathologies 2-3 years following anterior cruciate ligament reconstruction. 2019 , 27, 707-715		11
956	An interactive tool for the analysis of muscular recruitment during walking task. 2019 , 7, 175-185		2
955	An Uncontrolled Manifold Analysis of Arm Joint Variability in Virtual Planar Position and Orientation Telemanipulation. <i>IEEE Transactions on Biomedical Engineering</i> , 2019 , 66, 391-402	5	2
954	Predictive Models in Biomechanics. 2019 , 98-106		
953	Fast Forward-Dynamics Tracking Simulation: Application to Upper Limb and Shoulder Modeling. <i>IEEE Transactions on Biomedical Engineering</i> , 2019 , 66, 335-342	5	6
952	The Stabilizing Function of Superficial Shoulder Muscles Changes Between Single-Plane Elevation and Reaching Tasks. <i>IEEE Transactions on Biomedical Engineering</i> , 2019 , 66, 564-572	5	3
951	Approaches to Study Spine Biomechanics: A Literature Review. 2019 , 453-462		1
950	From Biomechanics to Robotics. 2019 , 35-63		1
949	Determining subject-specific lower-limb muscle architecture data for musculoskeletal models using diffusion tensor MRI. 2018 ,		9
948	Parametric dynamic analysis of walking within a cable-based gait trainer. 2019 , 37, 1225-1239		2
947	Primarily hip-borne load carriage does not alter biomechanical risk factors for overuse injuries in soldiers. 2019 , 22, 158-163		3
946	Mass distribution of wheelchair athletes assessed using DXA scans and biomechanical simulations. 2019 ,		1
945	Musculoskeletal modeling of user groups for virtual product and process development. 2019 , 22, 1209-1218		8
944	Design and Development of a Robotic Platform Based on Virtual Reality Scenarios and Wearable Sensors for Upper Limb Rehabilitation and Visuomotor Coordination. 2019 , 704-715		

943	Muscle contributions to mediolateral and anteroposterior foot placement during walking. 2019 , 95, 109310	6
942	A Multi-body Simulation Framework for Live Motion Tracking and Analysis within the Unity Environment. 2019 ,	1
941	Connecting the legs with a spring improves human running economy. 2019 , 222,	21
940	Hybrid Control Interface of a Semi-soft Assistive Glove for People with Spinal Cord Injuries. 2019 , 2019, 132-138	3
939	. 2019 ,	5
938	Changes in Contact Pressure at the Lower Extremity Joint with an Unstable Shoe. 2019 , 20, 1611-1619	4
937	Evaluation of the Complexity of Control of Simple Linear Hand Movements Using Principal Component Analysis. 2019 , 51, 132-140	2
936	A Support Vector Regression Approach for Continuous Prediction of Ankle Angle and Moment During Walking: An Implication for Developing a Control Strategy for Active Ankle Prostheses. 2019 , 2019, 727-733	5
935	Assisting gait with free moments or joint moments on the swing leg. 2019 , 2019, 1079-1084	4
934	A Comprehensive Analysis of Sensorimotor Mechanisms of Inter-Leg Coordination in Gait Using the Variable Stiffness Treadmill: Physiological Insights for Improved Robot-Assisted Gait Therapy. 2019 , 2019, 28-33	0
933	Musculoskeletal simulation framework for impairment-based exoskeletal assistance post-stroke. 2019 , 2019, 1185-1190	3
932	Joint Loading Estimation Method for Horse Forelimb High Jerk Locomotion: Jumping. 2019 , 16, 674-685	4
931	Predicted threshold against forward and backward loss of balance for perturbed walking. 2019 , 95, 109315	4
930	Rapid predictive simulations with complex musculoskeletal models suggest that diverse healthy and pathological human gaits can emerge from similar control strategies. 2019 , 16, 20190402	62
929	Effect of an ankle-foot orthosis on gait kinematics and kinetics: case study of post-stroke gait using a musculoskeletal model and an orthosis model. 2019 , 6,	4
928	Stiffness as a control factor for object manipulation. 2019 , 122, 707-720	1
927	Voluntary control of wearable robotic exoskeletons by patients with paresis via neuromechanical modeling. 2019 , 16, 91	40
926	Using biomechanics to investigate the effect of VR on eye vergence system. 2019 , 81, 102883	16

925	A Full-Chain OpenSim Model and Its Application on Posture Analysis of an Overhead Drilling Task. 2019 , 33-44	3
924	Assessment of residual reduction procedures for high-speed tasks. 2019 , 73, 116-119	1
923	Kinematics and muscle forces in women with patellofemoral pain during the propulsion phase of the single leg triple hop test. 2019 , 73, 108-115	5
922	Scalable muscle-actuated human simulation and control. 2019 , 38, 1-13	53
921	The Biomechanical Basis of the Claw Finger Deformity: A Computational Simulation Study. 2019 , 44, 751-761	6
920	Prediction of Knee Joint Moment by Surface Electromyography of the Antagonistic and Agonistic Muscle Pairs. 2019 , 7, 82320-82328	6
919	Biomechanics of the Hip During Gait. 2019 , 53-71	0
918	Sex differences in glenohumeral muscle activation and coactivation during a box lifting task. 2019 , 62, 1327-1338	9
917	EMG-Informed Musculoskeletal Modeling to Estimate Realistic Knee Anterior Shear Force During Drop Vertical Jump in Female Athletes. 2019 , 47, 2416-2430	10
916	Muscle compensation strategies to maintain glenohumeral joint stability with increased rotator cuff tear severity: A simulation study. 2019 , 102335	5
915	The effects of pediatric obesity on patellofemoral joint contact force during walking. 2019 , 73, 209-214	10
914	An individualized simulation model based on continuous, independent, ground force measurements after intramedullary stabilization of a tibia fracture. 2019 , 89, 2351-2360	2
913	Motion analysis for the evaluation of muscle overactivity: A point of view. 2019 , 62, 442-452	3
912	Effects of kinematic complexity and number of muscles on musculoskeletal model robustness to muscle dysfunction. 2019 , 14, e0219779	3
911	Effect of fixed charge density on water content of IVD during bed rest: A numerical analysis. 2019 , 70, 72-77	3
910	Comparison of Sprinting With and Without Running-Specific Prostheses Using Optimal Control Techniques. 2019 , 37, 2176-2194	3
909	Metabolic cost calculations of gait using musculoskeletal energy models, a comparison study. 2019 , 14, e0222037	20
908	Ankle and knee moment and power adaptations are elicited through load carriage conditioning in males. 2019 , 97, 109341	6

907	A Planar Model of an Ankle Joint with Optimized Material Parameters and Hertzian Contact Pairs. 2019 , 12,	6
906	Ultrasound as a Tool to Study Muscle-Tendon Functions during Locomotion: A Systematic Review of Applications. 2019 , 19,	5
905	Biomechanical effects of rocker shoes on plantar aponeurosis strain in patients with plantar fasciitis and healthy controls. 2019 , 14, e0222388	6
904	Simulation of the assistance of passive knee orthoses in FES cycling. 2019 , 2019, 3811-3814	1
903	Static optimization underestimates antagonist muscle activity at the glenohumeral joint: A musculoskeletal modeling study. 2019 , 97, 109348	16
902	Energy Expenditure Estimation During Crutch-Orthosis-Assisted Gait of a Spinal-Cord-Injured Subject. 2019 , 13, 55	7
901	Serratus anterior weakness is a key determinant of arm-assisted standing difficulties. 2019 , 74, 41-48	1
900	Postural Representations of the Hand in the Primate Sensorimotor Cortex. 2019 , 104, 1000-1009.e7	17
899	Modeling and simulation of complex dynamic musculoskeletal architectures. 2019 , 10, 4825	16
898	Force perceptual bias caused by muscle activity in unimanual steering. 2019 , 14, e0223930	3
897	Open-source software to create a kinematic model in digital human modeling. 2019 , 201-213	3
896	Motion analysis and modeling of the shoulder: challenges and potential applications. 2019 , 261-271	1
895	DHM data exchange protocols. 2019 , 663-670	
894	Digital human modeling for collaborative robotics. 2019 , 771-779	4
893	Muscle Contributions to Upper-Extremity Movement and Work From a Musculoskeletal Model of the Human Shoulder. 2019 , 13, 90	14
892	A Framework for the Analysis of Biomechanical Loading Using Human Motion Tracking. 2019 ,	1
891	Muscle internal structure revealed by contrast-enhanced μ CT and fibre recognition: The hindlimb extensors of an arboreal and a fossorial squirrel. 2019 , 99, 71-80	6
890	Design and Evaluation of an Active Ankle Exoskeleton in Gait Assistance. 2019 ,	2

889	Algorithmic differentiation improves the computational efficiency of OpenSim-based trajectory optimization of human movement. 2019 , 14, e0217730	18
888	Biomechanical Evaluation of Isotropic and Shell-Core Composite Meniscal Implants for Total Meniscus Replacement: A Nonlinear Finite Element Study. 2019 , 7, 140084-140101	3
887	Synthesising motion sensor data from biomechanical simulations to investigate motion sensor placement and orientation variations. 2019 , 2019, 6391-6394	2
886	Realizing human-like manipulation with a musculoskeletal system and biologically inspired control scheme. 2019 , 339, 116-129	15
885	Humans falling in holes: adaptations in lower-limb joint mechanics in response to a rapid change in substrate height during human hopping. 2019 , 16, 20190292	8
884	Upper Limb Muscle Force Estimation During Table Tennis Strokes. 2019 ,	2
883	Lower Extremity Joint Contributions to Trunk Control During Walking in Persons with Transtibial Amputation. 2019 , 9, 12267	1
882	A Simulation-based Feasibility Study of a Proprioception-inspired Sensing Framework for a Multi-DoF Shoulder Exosuit. 2019 ,	3
881	Minimal Inertial Sensor Placement for Work Recognition and Working Posture Assessment*. 2019 ,	1
880	Hierarchical Motion Segmentation Through sEMG for Continuous Lower Limb Motions. 2019 , 4, 4402-4409	5
879	Developing a Quasi-Static Controller for a Paralyzed Human Arm: A Simulation Study. 2019 , 2019, 1153-1158	2
878	Unpowered Walking Assistive Device Based on Gait Kinetic Energy Analysis. 2019 ,	
877	Maximal isometric force exertion predicted by the force feasible set formalism: application to handbraking. 2019 , 62, 1551-1562	
876	An Approach of Shoulder Movement Analysis Using OpenSim Software. 2019 ,	
875	Energy Flow in Multibody Limb Models: A Case Study in Frogs. 2019 , 59, 1559-1572	2
874	A probabilistic method to estimate gait kinetics in the absence of ground reaction force measurements. 2019 , 96, 109327	1
873	Design of the Cooperative Actuation in Hybrid Orthoses: A Theoretical Approach Based on Muscle Models. 2019 , 13, 58	1
872	Integrating hip exosuit and FES for lower limb rehabilitation in a simulation environment. 2019 , 51, 302-307	4

871	Humans Use Similar Posture Sequences in a Whole-Body Tracing Task. 2019 , 19, 860-871	2
870	Subject-specific geometry affects acetabular contact pressure during gait more than subject-specific loading patterns. 2019 , 22, 1323-1333	3
869	Human-exoskeleton control simulation, kinetic and kinematic modeling and parameters extraction. 2019 , 6, 1838-1846	5
868	Influence of musculotendon geometry variability in muscle forces and hip bone-on-bone forces during walking. 2019 , 14, e0222491	0
867	A Bioinspired Lightweight Wrist for High-DoF Robotic Prosthetic Arms. 2019 , 24, 2674-2683	12
866	Monitoring Knee Biomechanics in Patients Undergoing Anterior Cruciate Ligament Reconstruction: How Joint Loading Affects Cartilage Quality. 2019 , 7, 522-528	
865	German Society of Biomechanics (DGfB) Young Investigator Award 2019: Proof-of-Concept of a Novel Knee Joint Simulator Allowing Rapid Motions at Physiological Muscle and Ground Reaction Forces. 2019 , 7, 244	3
864	A Comparative Study of Continuum and Structural Modelling Approaches to Simulate Bone Adaptation in the Pelvic Construct. 2019 , 9, 3320	1
863	Kinematic Characteristics of Backhand Block in Table Tennis. 2019 ,	1
862	Estimating muscle activation patterns during overground walking for typically developing children and children with spastic cerebral palsy. 2019 , 73, 385-386	
861	Can a reduction approach predict reliable joint contact and musculo-tendon forces?. 2019 , 95, 109329	5
860	Shear Wave Predictions of Achilles Tendon Loading during Human Walking. 2019 , 9, 13419	23
859	Squat Lifting Imposes Higher Peak Joint and Muscle Loading Compared to Stoop Lifting. 2019 , 9, 3794	7
858	Feedback From Mono-Articular Muscles is Sufficient for Exoskeleton Torque Adaptation. 2019 , 27, 2097-2106	8
857	Predicting gait adaptations due to ankle plantarflexor muscle weakness and contracture using physics-based musculoskeletal simulations. 2019 , 15, e1006993	43
856	Computational Design of FastFES Treatment to Improve Propulsive Force Symmetry During Post-stroke Gait: A Feasibility Study. 2019 , 13, 80	9
855	Muscle recruitment strategies can reduce joint loading during level walking. 2019 , 97, 109368	7
854	RedMax. 2019 , 38, 1-10	11

853	Methods for evaluating effects of unloader knee braces on joint health: a review. 2019 , 9, 153-168	5
852	Are Planar Simulation Models Affected by the Assumption of Coincident Joint Centers at the Hip and Shoulder?. 2019 , 35, 157-163	3
851	Musculoskeletal models with generic and subject-specific geometry estimate different joint biomechanics in dysplastic hips. 2019 , 22, 259-270	10
850	Plantarflexor fiber and tendon slack length are strong determinates of simulated single-leg heel raise height. 2019 , 86, 27-33	13
849	Towards real-time whole-body human dynamics estimation through probabilistic sensor fusion algorithms. 2019 , 43, 1591-1603	9
848	Statistical shape modelling versus linear scaling: Effects on predictions of hip joint centre location and muscle moment arms in people with hip osteoarthritis. 2019 , 85, 164-172	26
847	Non-rigid deformation to include subject-specific detail in musculoskeletal models of CP children with proximal femoral deformity and its effect on muscle and contact forces during gait. 2019 , 22, 376-385	2
846	Anthropometric Scaling of Anatomical Datasets for Subject-Specific Musculoskeletal Modelling of the Shoulder. 2019 , 47, 924-936	13
845	Direct and indirect effects of joint torque inputs during an induced speed analysis of a swinging motion. 2019 , 86, 8-16	8
844	Estimation of Phantom Arm Mechanics About Four Degrees of Freedom After Targeted Muscle Reinnervation. 2019 , 1, 58-64	11
843	An image-based kinematic model of the tibiotalar and subtalar joints and its application to gait analysis in children with Juvenile Idiopathic Arthritis. 2019 , 85, 27-36	20
842	Model-based analysis of the stiffness of the wrist joint in active and passive conditions. 2019 ,	7
841	Stiffness modulation of redundant musculoskeletal systems. 2019 , 85, 101-107	11
840	Validation of an OpenSim full-body model with detailed lumbar spine for estimating lower lumbar spine loads during symmetric and asymmetric lifting tasks. 2019 , 22, 451-464	33
839	Estimating Sit-to-Stand Dynamics Using a Single Depth Camera. 2019 , 23, 2592-2602	10
838	UHMWPE Biomaterials for Joint Implants. 2019 ,	10
837	Increasing step width reduces the requirements for subtalar joint moments and powers. 2019 , 92, 29-34	0
836	Biomechanics and Tribology of Artificial Knee Joint. 2019 , 191-239	

835	Linking Joint Impairment and Gait Biomechanics in Patients with Juvenile Idiopathic Arthritis. 2019 , 47, 2155-2167	8
834	Experimentally quantifying the feasible torque space of the human shoulder. 2019 , 62, 102313	3
833	Muscle length and joint angle influence spinal but not corticospinal excitability to the biceps brachii across forearm postures. 2019 , 122, 413-423	3
832	Bilevel Optimization for Cost Function Determination in Dynamic Simulation of Human Gait. 2019 , 27, 1426-1435	20
831	Simulation of Human Hands Movements Using Forward Kinematics. 2019 , 705-710	
830	Effortless creation of safe robots from modules through self-programming and self-verification. 2019 , 4,	16
829	Simulated hip abductor strengthening reduces peak joint contact forces in patients with total hip arthroplasty. 2019 , 93, 18-27	10
828	Number of Segments Within Musculoskeletal Foot Models Influences Ankle Kinematics and Strains of Ligaments and Muscles. 2019 , 37, 2231-2240	7
827	Comparison of shoulder kinematic chain models and their influence on kinematics and kinetics in the study of manual wheelchair propulsion. 2019 , 69, 153-160	0
826	An Optimization Method Tracking EMG, Ground Reactions Forces, and Marker Trajectories for Musculo-Tendon Forces Estimation in Equinus Gait. 2019 , 13, 48	8
825	Multiscale modeling of the neuromuscular system: Coupling neurophysiology and skeletal muscle mechanics. 2019 , 11, e1457	17
824	Model-based control for exoskeletons with series elastic actuators evaluated on sit-to-stand movements. 2019 , 16, 65	24
823	Biomechanical effects of a lightweight, sock-style minimalist footwear design during running: a musculoskeletal simulation and statistical parametric mapping approach. 2019 , 11, 71-83	5
822	Assessment of the energy-related cost function over a range of walking speeds. 2019 , 18, 1837-1846	
821	Muscle force adaptation to changes in upper body position during seated sprint cycling. 2019 , 37, 2270-2278	6
820	Modified gait patterns due to cam FAI syndrome remain unchanged after surgery. 2019 , 72, 135-141	15
819	The Influence of Human Walking Activities on the Doppler Characteristics of Non-stationary Indoor Channel Models. 2019 , 297-309	1
818	Linearization of an OpenSim Arm Model for Feedback Control Design. 2019 , 289-294	1

817	A review of simulation methods for human movement dynamics with emphasis on gait. 2019 , 47, 265-292	16
816	Musculoskeletal model choice influences hip joint load estimations during gait. 2019 , 91, 124-132	7
815	The effects of electromyography-assisted modelling in estimating musculotendon forces during gait in children with cerebral palsy. 2019 , 92, 45-53	19
814	The influence of model parameters on model validation. 2019 , 22, 997-1008	1
813	Biomechanics and Biotribology of UHMWPE Artificial Hip Joints. 2019 , 241-286	2
812	RGB-D ergonomic assessment system of adopted working postures. 2019 , 80, 75-88	22
811	High Tibial Osteotomy: Review of Techniques and Biomechanics. 2019 , 2019, 8363128	26
810	Design of MATLAB/OpenSim Elbow Flexion Angular Setpoint Controller. 2019 , 167-174	1
809	Personalised Control of Robotic Ankle Exoskeleton Through Experience-Based Adaptive Fuzzy Inference. 2019 , 7, 72221-72233	13
808	Estimating the Maximum Isometric Force Generating Capacity of Wheelchair Racing Athletes for Simulation Purposes. 2019 , 1-25	
807	Excessive short-latency stretch reflexes in the calf muscles do not cause postural instability in patients with hereditary spastic paraplegia. 2019 , 130, 1188-1195	0
806	Real-time musculoskeletal visualization of muscle tension and joint reaction forces. 2019 ,	2
805	Rapid energy expenditure estimation for ankle assisted and inclined loaded walking. 2019 , 16, 67	9
804	Extra excitation of biceps femoris during neuromuscular electrical stimulation reduces knee medial loading. 2019 , 6, 181545	1
803	Foot Pronation Contributes to Altered Lower Extremity Loading After Long Distance Running. 2019 , 10, 573	25
802	Tibialis anterior tendinous tissue plays a key role in energy absorption during human walking. 2019 , 222,	7
801	Influence of passive elements on prediction of intradiscal pressure and muscle activation in lumbar musculoskeletal models. 2019 , 177, 39-46	7
800	Neuro-musculoskeletal flexible multibody simulation yields a framework for efficient bone failure risk assessment. 2019 , 9, 6928	12

799	Interactive animation generation of virtual characters using single RGB-D camera. 2019 , 35, 849-860	6
798	Draculab: A Python Simulator for Firing Rate Neural Networks With Delayed Adaptive Connections. 2019 , 13, 18	2
797	Individuals with mild-to-moderate hip osteoarthritis exhibit altered pelvis and hip kinematics during sit-to-stand. 2019 , 71, 267-272	6
796	Development of a novel MATLAB-based framework for implementing mechanical joint stability constraints within OpenSim musculoskeletal models. 2019 , 91, 61-68	3
795	A commentary on Kalkman et al.'s letter to the editor regarding Alexander et al. (2019): "Children with cerebral palsy have larger in-vivo and linearly scaled Achilles tendon moment arms than typically developing children". 2019 , 92, 178-180	1
794	Musculoskeletal modelling of the human cervical spine for the investigation of injury mechanisms during axial impacts. 2019 , 14, e0216663	6
793	Contributions of muscles and external forces to medial knee load reduction due to osteoarthritis braces. 2019 , 26, 564-577	11
792	Measuring clinically relevant knee motion with a self-calibrated wearable sensor. 2019 , 89, 105-109	5
791	Calibration of the shear wave speed-stress relationship in ex vivo tendons. 2019 , 90, 9-15	13
790	Muscle-specific indices to characterise the functional behaviour of human lower-limb muscles during locomotion. 2019 , 89, 134-138	16
789	Assessing and improving human movements using sensitivity analysis and digital human simulation. 2019 , 32, 546-558	4
788	When joggers meet robots: the past, present, and future of research on humanoid robots. 2019 , 2, 108-118	7
787	On the influence of the shoulder kinematic chain on joint kinematics and musculotendon lengths during wheelchair propulsion estimated from multibody kinematics optimization. 2019 ,	2
786	Lateral extra-articular reconstruction length changes during weightbearing knee flexion and pivot shift: A simulation study. 2019 , 105, 661-667	1
785	A Bio-Inspired Musculoskeletal Model of the Lower Limb for Energy Economical Bipedal Walking. 2019 ,	2
784	Neuromusculoskeletal Simulation Reveals Abnormal Rectus Femoris-Gluteus Medius Coupling in Post-stroke Gait. 2019 , 10, 301	9
783	Ankle Foot Orthosis (AFO) stiffness design for mitigation of ankle inversion injury. 2019 ,	
782	Sensitivity of Shoulder Musculoskeletal Model Predictions to Muscle-Tendon Properties. <i>IEEE Transactions on Biomedical Engineering</i> , 2019 , 66, 1309-1317	5 3

781	Neural Networks for Modeling Neural Spiking in S1 Cortex. 2019 , 13, 13	3
780	Experimental muscle pain of the vastus medialis reduces knee joint extensor torque and alters quadriceps muscle contributions as revealed through musculoskeletal modeling. 2019 , 67, 27-33	1
779	The Effect of Cadence on the Mechanics and Energetics of Constant Power Cycling. 2019 , 51, 941-950	7
778	A validated combined musculotendon path and muscle-joint kinematics model for the human hand. 2019 , 22, 727-739	4
777	Proportional Joint-Moment Control for Instantaneously Adaptive Ankle Exoskeleton Assistance. 2019 , 27, 751-759	28
776	Gait Analysis of Patients Subjected to the Atrophic Mandible Augmentation with Iliac Bone Graft. 2019 , 2019, 8203597	2
775	Biomaterials to Mimic and Heal Connective Tissues. 2019 , 31, e1806695	79
774	An automatic and non-invasive physical fatigue assessment method for construction workers. 2019 , 103, 1-12	53
773	Coupling Musculoskeletal Dynamics and Subject-Specific Finite Element Analysis of Femoral Cortical Bone Failure after Endoprosthetic Knee Replacement. 2019 , 2019, 4650405	6
772	SMA Based Elbow Exoskeleton for Rehabilitation Therapy and Patient Evaluation. 2019 , 7, 31473-31484	16
771	Effects of realistic sheep elbow kinematics in inverse dynamic simulation. 2019 , 14, e0213100	5
770	Computational modeling of neuromuscular response to swing-phase robotic knee extension assistance in cerebral palsy. 2019 , 87, 142-149	2
769	A Battery-Powered Ankle Exoskeleton Improves Gait Mechanics in a Feasibility Study of Individuals with Cerebral Palsy. 2019 , 47, 1345-1356	30
768	Effects of different heel heights on lower extremity joint loading in experienced and in-experienced users: a musculoskeletal simulation analysis. 2019 , 15, 237-248	2
767	Predicting the Effect of Bilateral Pelvic Osteotomy on Sagittal Alignment Correction and Surrounding Muscles: A Mathematical Model. 2019 , 2019, 3041359	
766	Effects of altering plantar flexion resistance of an ankle-foot orthosis on muscle force and kinematics during gait training. 2019 , 46, 63-69	5
765	Spatial Dependency of Glenohumeral Joint Stability during Dynamic Unimanual and Bimanual Pushing and Pulling. 2019 ,	3
764	Postural control of a musculoskeletal model against multidirectional support surface translations. 2019 , 14, e0212613	7

763	Evaluation of the hip joint contact force in subjects with Perthes based on OpenSIM. 2019 , 67, 44-48	0
762	Effect of contralateral cane use on hip moment impulse in the frontal plane during the stance phase. 2019 , 70, 311-316	1
761	Exoskeletons, Exomusculatures, Exosuits: Dynamic Modeling and Simulation. 2019 , 305-331	1
760	A reduced muscle model and planar musculoskeletal model fit for the simulation of whole-body movements. 2019 , 89, 11-20	11
759	Effects of stretch reflex on back muscle response during sinusoidal whole body vibration in sitting posture: A model study. 2019 , 71, 103-110	4
758	Selective dorsal rhizotomy improves muscle forces during walking in children with spastic cerebral palsy. 2019 , 65, 26-33	11
757	Numerical predictions of hip joint and muscle forces during daily activities: A comparison of musculoskeletal models. 2019 , 233, 636-647	6
756	The effect of combined functional anaerobic and strength training on treadmill gait kinematics and kinetics in ambulatory young adults with cerebral palsy. 2019 , 70, 323-329	4
755	Musculoskeletal model-based inverse dynamic analysis under ambulatory conditions using inertial motion capture. 2019 , 65, 68-77	32
754	Computational analysis of glenohumeral joint growth and morphology following a brachial plexus birth injury. 2019 , 86, 48-54	6
753	Statistical analysis of timeseries data reveals changes in 3D segmental coordination of balance in response to prosthetic ankle power on ramps. 2019 , 9, 1272	3
752	Effect of humeral tray placement on impingement-free range of motion and muscle moment arms in reverse shoulder arthroplasty. 2019 , 62, 136-143	10
751	Minimal medical imaging can accurately reconstruct geometric bone models for musculoskeletal models. 2019 , 14, e0205628	12
750	A novel training-free method for real-time prediction of femoral strain. 2019 , 86, 110-116	9
749	Parameterization of proximal humerus locking plate impingement with in vitro, in silico, and in vivo techniques. 2019 , 28, 1183-1192	2
748	Sensitivity of medial-lateral load sharing to changes in adduction moments or angles in an asymptomatic knee joint model during gait. 2019 , 70, 39-47	8
747	Towards in-silico robotic post-stroke rehabilitation for mice. 2019 ,	0
746	Evolution of mechanical fields during the gait cycle in healthy and implanted femoral bones. 2019 , 22, S157-S159	

- 745 Biomechanical analysis of the lumbar-pelvic-femoral complex during the one-sided tilt test: a pilot study in triathletes. **2019**, 22, S302-S304 1
- 744 A closed-loop multibody model to assess lower-limb kinematics in rowing. **2019**, 22, S345-S347
- 743 Prediction of clothing mobility using a musculoskeletal simulator. **2019**, 32, 132-147
- 742 Design and control of a novel all-terrains wearable vehicle. **2019**, 46, 740-762
- 741 Effect of different musculoskeletal model scaling methods on muscle force prediction for patients with cerebral palsy and equinus gait. **2019**,
- 740 OpenArm 2.0: Automated Segmentation of 3D Tissue Structures for Multi-Subject Study of Muscle Deformation Dynamics. **2019**, 2019, 982-988 1
- 739 Assistive Robotics and Muscular System Modeling for Rehabilitation of Spasticity Patients. **2019**,
- 738 A musculoskeletal modelling approach of the assessment of the risk of hamstring injuries in professional soccer players: a pilot study. **2019**, 22, S281-S282
- 737 Influence of ankle joint model on lower limbs kinematics and kinetics during table tennis forehand drive. **2019**, 22, S177-S179
- 736 A Random Forest Approach for Continuous Prediction of Joint Angles and Moments During Walking: An Implication for Controlling Active Knee-Ankle Prostheses/Orthoses. **2019**, 1
- 735 Muscle structure governs joint function: linking natural variation in medial gastrocnemius structure with isokinetic plantar flexor function. **2019**, 8, 8
- 734 Clinical Human Gait Classification: Extreme Learning Machine Approach. **2019**, 35
- 733 Musculoskeletal Bias on Infant Sensorimotor Development Driven by Predictive Learning. **2019**,
- 732 Estimating the Effect of Robotic Intervention on Elbow Joint Motion. **2019**, 1
- 731 Human-like gait generation from a reduced set of tasks using the hierarchical control framework from robotics. **2019**, 0
- 730 TIP Model: A Combination of Unstable Subsystems for Lateral Balance in Walking. **2019**, 1
- 729 A Survey on Mathematical Modeling of Muscle Using for Rehabilitation Systems. **2019**, 0
- 728 Model Simplification For Dynamic Control of Series-Parallel Hybrid Robots - A Representative Study on the Effects of Neglected Dynamics Shivesh. **2019**, 2

727	Simulation of Tibialis Anterior Muscle Transfer for Congenital Clubfoot Based on OpenSim. 2019,	
726	Preliminary Study on Muscle Force Estimation using Musculoskeletal Model for Upper Limb Rehabilitation with Assistive Device for Home Setting. 2019, 1372, 012023	1
725	On Driver-Vehicle-Environment Integration for Multi-Actuated Ground Vehicles Safety Advancement: An Overview of the Interdisciplinary Training Network in Multi-Actuated Ground Vehicles. 2019,	0
724	A Parametric Identification Method of Human Gait Differences and its Application in Rehabilitation. 2019, 9, 4581	3
723	A Wearable System to Analyze the Human Arm for Predicting Injuries Due to Throwing. 2019, 2019, 3297-3301	4
722	Model-Based Estimation of Ankle Joint Stiffness During Dynamic Tasks: a Validation-Based Approach. 2019, 2019, 4104-4107	8
721	Closed-loop Central Pattern Generator Control of Human Gaits in OpenSim Simulator. 2019,	4
720	Physics-based predictive simulations to explore the differential effects of motor control and musculoskeletal deficits on gait dysfunction in cerebral palsy: a retrospective case study.	
719	Spatiotemporal Maps of Proprioceptive Inputs to the Cervical Spinal Cord During Three-Dimensional Reaching and Grasping.	0
718	The Effect of Functional Knee Braces on Muscular Contributions to Joint Rotational Stiffness in Anterior Cruciate Ligament-Deficient and -Reconstructed Patients. 2019, 35, 344-352	2
717	Do Muscle Synergies Improve Optimization Prediction of Muscle Activations During Gait?.	
716	Chronic Ankle Instability Does Not Influence Tibiofemoral Contact Forces During Drop Landings Using a Musculoskeletal Model. 2019, 1-5	0
715	Lower-limb muscle function is influenced by changing mechanical demands in cycling. 2021, 224,	1
714	Achilles tendon stiffness minimizes the energy cost in simulations of walking in older but not in young adults.	0
713	Mechanism of anterior cruciate ligament loading during dynamic motor tasks.	
712	A Musculoskeletal Modeling of Hand-foot Crawling with Different Heights. 2020, 17, 591-599	0
711	Functional and Structural Moment Arm Validation for Musculoskeletal Models: A Study of the Human Forearm and Hand.	2
710	POSTEROMEDIAL MENISCAL AND ANTERIOR CRUCIATE LIGAMENT STRAINS DURING DYNAMIC ACTIVITIES FOLLOWING ANTERIOR CRUCIATE LIGAMENT RECONSTRUCTION. 2020, 23, 2050010	

- 709 Muscle Forces During the Squat, Split Squat, and Step-Up Across a Range of External Loads in College-Aged Men. **2020**, 0
- 708 Simulating the Impact of Glenohumeral Capsulorrhaphy on Movement Kinematics and Muscle Function in Activities of Daily Living. 0
- 707 Predicting walking response to ankle exoskeletons using data-driven models. 0
- 706 Human-Centric Optimal Design of Biomimetic Exosuit for Loaded Walking: A Simulation Study. **2021**, 497-510 3
- 705 Upper body and ankle strategies compensate for reduced lateral stability at very slow walking speeds. 0
- 704 Muscular Coordination of Single-Leg Hop Landing in Uninjured and Anterior Cruciate Ligament-Reconstructed Individuals. **2020**, 1-9 3
- 703 Evaluation of Synergy Extrapolation for Predicting Unmeasured Muscle Excitations from Measured Muscle Synergies. 1
- 702 Upper Limbs Musculoskeletal OpenSim Model: Customization and Assessment. **2021**, 162-170 3
- 701 Sensitivity of Neuromechanical Predictions to Choice of Glenohumeral Stability Modeling Approach. **2020**, 1-10 1
- 700 Muscle Metabolic Energy Costs While Modifying Propulsive Force Generation During Walking. 0
- 699 Musculoskeletal Model Personalization Affects Metabolic Cost Estimates for Walking. 0
- 698 Association between global sagittal malalignment and increasing hip joint contact force, analyzed by a novel musculoskeletal modeling system. **2021**, 16, e0259049 1
- 697 Predictive simulation of post-stroke gait with functional electrical stimulation. **2021**, 11, 21351 0
- 696 Sex-Dependent Estimation of Spinal Loads During Static Manual Material Handling Activities-Combined and Analyses. **2021**, 9, 750862 1
- 695 Simulation of Human Upright Standing Push-Recovery Based on OpenSim. **2020**, 308-319 1
- 694 Shear Stress Applied to the Myotendinous Junction of the Biceps Femoris Long Head and Semimembranosus during the Late Swing Phase of High-speed Running. **2020**, 25, 97-111 0
- 693 Upper body estimation of muscle forces, muscle states, and joint motion using an extended Kalman filter. **2020**, 14, 3204-3216 0
- 692 Using Predictive Simulation Methods to Design Suitable Assistance Modes for Human Walking on Slopes. **2020**, 0

691	ILIOTIBIAL BAND SYNDROME IN CYCLING: A COMBINED EXPERIMENTAL-SIMULATION APPROACH FOR ASSESSING THE EFFECT OF SADDLE SETBACK. 2020 , 15, 958-966		
690	Humans use minimum cost movements in a whole-body task.		0
689	Human gait analysis based on OpenSim. 2020 ,		1
688	EMU: Efficient Muscle Simulation in Deformation Space. 2021 , 40, 234-248		3
687	Quantifying Asymmetry between Medial and Lateral Compartment Knee Loading Forces using Acoustic Emissions. <i>IEEE Transactions on Biomedical Engineering</i> , 2021 , PP,	5	0
686	Planning to Minimize the Human Muscular Effort during Forceful Human-Robot Collaboration. 2022 , 11, 1-27		
685	. 2020 , 1-1		6
684	Adaptive Iterative Learning Control of an Industrial Robot during Neuromuscular Training. 2020 , 53, 16468-16475		
683	. 2021 , 1-1		2
682	Rigid and Non-rigid Motion Compensation in Weight-bearing CBCT of the Knee using Simulated Inertial Measurements. <i>IEEE Transactions on Biomedical Engineering</i> , 2021 , PP,	5	
681	Differences Between Static and Dynamical Optimization Methods in Musculoskeletal Modeling Estimations to Study Elite Athletes. 2020 , 624-631		0
680	Determination of biological joint reaction forces from in-vivo experiments using a hybrid combination of biomechanical and mechanical engineering software. 2020 , 21, 623		1
679	A Reliable and Inexpensive Integration of Virtual Reality and Digital Human Modelling to Estimate Cervical Spine Function. 2020 , 178-193		
678	Pathomechanics of the Dysplastic Hip. 2020 , 39-53		
677	Simulation of Limb Rehabilitation Robot Based on OpenSim. 2020 , 647-654		
676	Proactive Analysis of Complex Systems Through DHM: Paradigmatic Application of an Innovative Ergonomic Cumulative Index to Large Retail Stores. 2020 , 557-567		1
675	Experimental Studies of Contact Space Model for Multi-surface Collisions in Articulated Rigid-Body Systems. 2020 , 425-436		2
674	From a biological template model to gait assistance with an exosuit.		

- 673 Ankle gait-pattern generators. **2020**,
- 672 Movement history influences pendulum test kinematics in children with spastic cerebral palsy.
- 671 Adaptations in Reactive Balance Strategies in Healthy Older Adults After a 3-Week Perturbation Training Program and After a 12-Week Resistance Training Program. **2021**, 3, 714555 0
- 670 Inertial Motion Capture-Based Whole-Body Inverse Dynamics. **2021**, 21, 6
- 669 A Nonlinear Autoencoder for Kinematic Synergy Extraction from Movement Data Acquired with HTC Vive Trackers. **2021**, 231-241 2
- 668 Differences between joint-space and musculoskeletal estimations of metabolic rate time profiles. **2020**, 16, e1008280 3
- 667 Similar sensorimotor transformations control balance during standing and walking.
- 666 A Procedure to Define Customized Musculoskeletal Models for the Analysis of the Crutch-Orthosis-Assisted Gait of Spinal Cord Injured Subjects. **2020**, 142, 1
- 665 Wearable Robotic Ankle Resistance Training Improves Neuromuscular Control and Walking Efficiency in Cerebral Palsy.
- 664 Serebral Palsili Bcukları Yıne Karakteristihin Deęlendirilmesi.
- 663 An Indirect Method Based on Capture Data Is Usable for Muscle Fatigue Treatment. **2021**, 283-289
- 662 Optimal EMG placement for a robotic prosthesis controller with sequential, adaptive functional estimation (SAFE). **2020**, 14, 0
- 661 Design of Optimal Treatments for Neuromusculoskeletal Disorders using Patient-Specific Multibody Dynamic Models. **2009**, 2, 145-155 5
- 660 Electrical stimulation of the rectus femoris during pre-swing diminishes hip and knee flexion during the swing phase of normal gait. **2010**, 18, 523-30 5
- 659 Physical principles demonstrate that the biceps femoris muscle relative to the other hamstring muscles exerts the most force: implications for hamstring muscle strain injuries. **2014**, 4, 371-7 16
- 658 Trunk Kinematic Analysis during Gait in Cerebral Palsy Children with Crouch Gait Pattern. **2018**, 8, 281-288 4
- 657 Robotic Knee Tracking Control to Mimic the Intact Human Knee Profile Based on Actor-Critic Reinforcement Learning. **2022**, 9, 19-30 4
- 656 Muscle actions on crossed and non-crossed joints during upright standing and gait: A comprehensive description based on induced acceleration analysis. **2021**, 130, 110874 0

655	Development of a Full-body OpenSim Musculoskeletal Model Incorporating Head-mounted Virtual Reality Headset. 2021 , 65, 477-481	
654	The Biomechanical Evaluation of a Human-Robot Collaborative Task in a Physically Interactive Virtual Reality Simulation Testbed. 2021 , 65, 403-407	1
653	Deep Reinforcement Learning for Motion Planning in Human Robot cooperative Scenarios. 2021 ,	1
652	Corrigendum to "Connecting the wrist to the hand: A simulation study exploring changes in thumb-tip endpoint force following wrist surgery" [J. Biomech. 58 (2017) 97-104]. 2021 , 110859	1
651	Validity and Sensitivity of an Inertial Measurement Unit-Driven Biomechanical Model of Motor Variability for Gait. 2021 , 21,	2
650	Walking Biomechanics and Spine Loading in Patients With Symptomatic Lumbar Spinal Stenosis. 2021 , 9, 751155	0
649	On the hindlimb biomechanics of the avian take-off leap.	
648	Novice Female Exercisers Exhibited Different Biomechanical Loading Profiles during Full-Squat and Half-Squat Practice. 2021 , 10,	1
647	Design and simulation of miniaturized direct linear motors for artificial muscle fibers. 2021 , 113239	
646	Combination of musculoskeletal and wear models to investigate the effect of daily living activities on wear of hip prostheses. 2021 , 235, 2675-2687	0
645	Topology Optimisation for Compliant Hip Implant Design and Reduced Strain Shielding. 2021 , 14,	2
644	The mechanisms and mechanical energy of human gait initiation from the lower-limb joint level perspective. 2021 , 11, 22473	0
643	Corrigendum to "Bridging the gap between cadaveric and in vivo experiments: A biomechanical model evaluating thumb-tip endpoint forces" [J. Biomech. 46(5) (2013) 1014-1020]. 2021 , 110858	1
642	Effectiveness of Global Optimisation and Direct Kinematics in Predicting Surgical Outcome in Children with Cerebral Palsy.. 2021 , 11,	
641	A comparison of plantarflexor musculotendon unit output between plyometric exercises and running. 2021 ,	
640	A 3D model of the soleus reveals effects of aponeuroses morphology and material properties on complex muscle fascicle behavior.. 2021 , 130, 110877	1
639	Expediting Finite Element Analyses for Subject-Specific Studies of Knee Osteoarthritis: A Literature Review. 2021 , 11, 11440	0
638	A Framework for Virtual Evaluation of Body-Attached Sensor Networks. 2022 , 557-568	1

637	Measuring the likelihood of VR visual fatigue through ocular biomechanics. 2021 , 70, 102105		0
636	Toward Real-Time Muscle Force Inference and Device Control via Optical-Flow-Tracked Muscle Deformation. 2021 , PP,		1
635	Variations of Lower-Limb Joint Kinematics Associated to the Use of Different Ankle Joint Models.		
634	Improving the Energy Cost of Incline Walking and Stair Ascent with Ankle Exoskeleton Assistance in Cerebral Palsy.. <i>IEEE Transactions on Biomedical Engineering</i> , 2021 , PP,	5	1
633	How fiber dynamics of plantarflexor and dorsiflexor muscles based on EMG-driven approach can explain the metabolic cost at different gait speeds.. 2022 , 122, 745		
632	Force Feedback Design of Operation Levers Considering the Characteristics of Human Force Perception to Improve Hydraulic Excavator Operability. 2022 , 10, 926-938		1
631	Elevated loading at the posterior acetabular edge of dysplastic hips during double-legged squat.. 2022 ,		
630	IMU-derived kinematics detect gait differences with age or knee osteoarthritis but differ from marker-derived inverse kinematics.		
629	An Online Multi-Index Approach to Human Ergonomics Assessment in the Workplace. 2022 , 1-12		4
628	The energy cost of split-belt walking for a variety of belt speed combinations.. 2022 , 132, 110905		1
627	Feasibility of personalised hip load modification using real-time biofeedback in hip osteoarthritis: A pilot study. 2022 , 4, 100230		0
626	. 2022 , 7, 1246-1253		1
625	Electrical Stimulation of the Rectus Femoris During Pre-Swing Diminishes Hip and Knee Flexion During the Swing Phase of Normal Gait. 2010 , 18, 523-30		5
624	Human balance models optimized using a large-scale, parallel architecture with applications to mild traumatic brain injury. 2020 ,		0
623	Muscle-Specific Contributions to Lower Extremity Net Joint Moments While Squatting With Different External Loads. 2020 , 36,		
622	A Subject-Specific Neuromusculoskeletal Model for Muscle Force Estimation Used in Rehabilitation. 2020 ,		
621	A Feasibility Study on Tribological Origins of Knee Acoustic Emissions. <i>IEEE Transactions on Biomedical Engineering</i> , 2021 , PP,		5
620	History of the Study of Human Locomotion and Elements of Current Research Methodology. 2021 , 13-37		

619	Shoulder muscles and joints loads variation during the Taekwondo punch (Jirugi): Musculoskeletal modeling. 2021 , 7, 65-78	
618	Man-machine interaction simulation of four-bar linkage lumbar spine therapeutic instrument based on OpenSim and MATLAB. 2021 ,	0
617	Dynamics Computation of a Hybrid Multi-link Humanoid Robot Integrating Rigid and Soft Bodies. 2021 ,	0
616	Clusterization of multi-channel electromyograms into muscle-specific activations to drive a subject-specific musculoskeletal model: towards fast and accurate clinical decision-making. 2021 , 2021, 5979-5982	1
615	Femur Abduction Associated with Transfemoral Amputation Alters the Profile of Lumbopelvic Mechanical Loads During Generalized End-Limb Loading. 2021 , 2021, 4863-4866	
614	Walking Pole Gait to Reduce Joint Loading post Total Knee Athroplasty: Musculoskeletal modeling Approach. 2021 , 2021, 4605-4610	
613	Arbitrary Prestrain Values for Ligaments Cause Numerical Issues in a Multibody Model of an Ankle Joint. 2022 , 14, 261	
612	A Computationally Efficient Lower Limb Finite Element Musculoskeletal Framework Directly Driven Solely by Inertial Measurement Unit Sensors.. 2021 ,	0
611	A Musculoskeletal Model Customized for Sagittal and Frontal Knee Kinematics with Improved Knee Joint Stability.. 2022 ,	0
610	Simulation of Spinal Muscle Control in Human Gait using OpenSim. 2022 , 1-1	
609	Biomechanical Characteristics of the Knee Joint during Gait in Obese versus Normal Subjects.. 2022 , 19,	0
608	A Guide to Inverse Kinematic Marker-Guided Rotoscoping Using IK Solvers.. 2022 , 4, obac002	1
607	The effect of modelling parameters in the development and validation of knee joint models on ligament mechanics: A systematic review.. 2022 , 17, e0262684	0
606	Subject-Independent, Biological Hip Moment Estimation during Multimodal Overground Ambulation using Deep Learning. 2022 , 1-1	2
605	The effects of posture on the three-dimensional gait mechanics of human walking in comparison to bipedal chimpanzees.. 2022 ,	0
604	Biomechanical Markers of Forward Hop-Landing After ACL-Reconstruction: A Pattern Recognition Approach.. 2022 , 50, 330	
603	Patellar Tendon Force Differs Depending on Jump-Landing Tasks and Estimation Methods. 2022 , 12, 488	
602	Joint kinematics alone can distinguish hip or knee osteoarthritis patients from asymptomatic controls with high accuracy.. 2022 ,	1

601	Is subject-specific musculoskeletal modelling worth the extra effort or is generic modelling worth the shortcut?. 2022 , 17, e0262936		1
600	Coupled exoskeleton assistance simplifies control and maintains metabolic benefits: A simulation study.. 2022 , 17, e0261318		1
599	Manipulating abnormal synergistic coupling of joint torques through force applications at the Hand: A Simulation-Based study.. 2021 , 131, 110936		
598	EMG-informed neuromusculoskeletal models accurately predict knee loading measured using instrumented implants.. <i>IEEE Transactions on Biomedical Engineering</i> , 2022 , PP,	5	4
597	Musculoskeletal modeling-based definition of load cases and worst-case fracture orientation for the design of clavicle fixation plates.. 2021 ,		
596	Which lower-limb joints compensate for destabilising energy during walking in humans?.		
595	An EMG-Based Constitutive Law for Force Generation in Skeletal Muscle - Part I: Model Development.. 2022 ,		0
594	Human balance control in 3D running based on virtual pivot point concept.. 2022 ,		0
593	Human-in-the-Loop Weight Compensation in Upper Limb Wearable Robots Towards Total Muscles Effort Minimization. 2022 , 7, 3273-3278		
592	Human-in-the-Loop Optimization of Exoskeleton Assistance Via Online Simulation of Metabolic Cost. 2022 , 1-20		3
591	Evaluation of Optimal Control Approaches for Predicting Active Knee-Ankle-Foot-Orthosis Motion for Individuals With Spinal Cord Injury.. 2021 , 15, 748148		0
590	Lower Extremity Kinetics and Kinematics in Runners with Patellofemoral Pain: A Retrospective CaseControl Study Using Musculoskeletal Simulation. 2022 , 12, 585		0
589	An instrumented walker in three-dimensional gait analysis: Improving musculoskeletal estimates in the lower limb mobility impaired.. 2022 , 93, 142-145		0
588	Knee osteoarthritis alters peri-articular knee muscle strategies during gait.. 2022 , 17, e0262798		1
587	Sharing the load: modeling loads in OpenSim to simulate two-handed lifting. 2022 , 54, 213		0
586	Exercise-induced piezoelectric stimulation for cartilage regeneration in rabbits.. 2022 , 14, eabi7282		13
585	Musculoskeletal modeling of sprawling and parasagittal forelimbs provides insight into synapsid postural transition. 2022 , 25, 103578		3
584	Environmental Temperature in Thermal Comfort Under Different Virtual Tourism Activity Intensities: Based on Microclimate Simulation Experiment.. 2021 , 15, 762322		0

583	The legacy of A. V. Hill's Nobel Prize winning work on muscle energetics.. 2022,		0
582	Quantifying template signatures of center-of-mass motion during walking with ankle exoskeletons.		0
581	The interaction effects of rocker angle and apex location in rocker shoe design on foot biomechanics and Achilles tendon loading. 2022, 13, 100111		
580	Synergies are minimally affected during emulation of cerebral palsy gait patterns.. 2022, 133, 110953		1
579	Inferring Human-Robot Performance Objectives During Locomotion Using Inverse Reinforcement Learning and Inverse Optimal Control. 2022, 7, 2549-2556		0
578	Synchronized acoustic emission and gait analysis of total hip replacement patients. 2022, 74, 103488		
577	Force Production Patterns of Muscles Surrounding Knee During Running and Cutting Maneuvers: A Musculoskeletal Modeling Approach. 2022, 24, 29-38		
576	Single leg vertical jump performance identifies knee function deficits at return to sport after ACL reconstruction in male athletes.. 2022,		4
575	Free Achilles tendon strain during selected rehabilitation, locomotor, jumping, and landing tasks.. 2022,		1
574	Design and investigation of the effectiveness of a metatarsophalangeal assistive device on the muscle activities of the lower extremity.. 2022, 17, e0263176		
573	Musculoskeletal biomechanics of patients with or without adjacent segment degeneration after spinal fusion.. 2021, 22, 1038		
572	Control of Mammalian Locomotion by Somatosensory Feedback.. 2021, 12, 2877-2947		3
571	Model-Based Comparison of Passive and Active Assistance Designs in an Occupational Upper Limb Exoskeleton for Overhead Lifting. 2021, 1-19		
570	Multimuscle Functional-Electrical-Stimulation-Based Wrist Tremor Suppression Using Repetitive Control. 2022, 1-11		1
569	Towards Tailored Rehabilitation by Implementation of a Novel Musculoskeletal Finite Element Analysis Pipeline.. 2022, PP,		0
568	An EMG-assisted muscle-force driven finite element analysis pipeline to investigate joint- and tissue-level mechanical responses in functional activities: towards a rapid assessment toolbox.. <i>IEEE Transactions on Biomedical Engineering,</i> 2022, PP,	5	0
567	Simulating Ideal Assistive Strategies to Reduce the Metabolic Cost of Walking in the Elderly.. <i>IEEE Transactions on Biomedical Engineering,</i> 2022, PP,	5	1
566	Muscular Human Cybertwin for Internet of Everything: A Pilot Study. 2022, 1-1		0

- 565 A 3D Biomechanical Model of Human-Seat Interaction. **2022**, 129-143
- 564 Biomechanics and mechanobiology of bone and muscle: Current and future musculoskeletal modeling research directions in osteosarcopenia. **2022**, 39-50
- 563 The use of computational models in orthopedic biomechanical research. **2022**, 681-712 0
- 562 DeepBBWAE-Net: A CNN-RNN Based Deep SuperLearner For Estimating Lower Extremity Sagittal Plane Joint Kinematics Using Shoe-Mounted IMU Sensors In Daily Living.. **2022**, PP, 0
- 561 The walking and running control of a human musculoskeletal model using a low-power consumption hardware central pattern generator model. **2022**, 19, 172988062210806 0
- 560 Force estimations and theoretical calculations for the biarticular muscles during squatting. **2022**,
- 559 Fusion of Wearable Kinetic and Kinematic Sensors to Estimate Triceps Surae Work during Outdoor Locomotion on Slopes.. **2022**, 22, 1
- 558 Hammerstein-Wiener Multimodel Approach for Fast and Efficient Muscle Force Estimation from EMG Signals.. **2022**, 12, 0
- 557 Hyperflexion is unlikely to be the primary cervical spine injury mechanism in accidental head-on rugby tackling.
- 556 Morphological variation in paediatric lower limb bones.. **2022**, 12, 3251 1
- 555 A Survey on Design and Control of Lower Extremity Exoskeletons for Bipedal Walking. **2022**, 12, 2395 2
- 554 A direct collocation framework for optimal control simulation of pedaling using OpenSim.. **2022**, 17, e0264346 3
- 553 OpenSense: An open-source toolbox for inertial-measurement-unit-based measurement of lower extremity kinematics over long durations.. **2022**, 19, 22 5
- 552 Robust Control of the Human Trunk Posture Using FNS: A Simulation Study.. **2022**,
- 551 A Neural Controller Model Considering the Vestibulospinal Tract in Human Postural Control.. **2022**, 16, 785099
- 550 The Development and Evaluation of a Fully Automated Markerless Motion Capture Workflow.
- 549 Adaptations for bipedal walking: Musculoskeletal structure and three-dimensional joint mechanics of humans and bipedal chimpanzees (Pan troglodytes). 0
- 548 Does the stimulus provoking a stepping reaction correlate with step characteristics and clinical measures of balance and mobility post-stroke?. **2022**, 93, 105595

547	Altering the strength of the muscles crossing the lower limb joints only affects knee joint reaction forces.. 2022 , 95, 210-216	0
546	Three-dimensional polygonal muscle modelling and line of action estimation in living and extinct taxa.. 2022 , 12, 3358	2
545	Developing a method for quantifying hip joint angles and moments during walking using neural networks and wearables.. 2022 , 1-11	0
544	Multibody modelling of the foot for the biomechanical analysis of the ankle joint during running: A narrative review. 146441932210908	
543	Effect of Assistance Using a Bilateral Robotic Knee Exoskeleton on Tibiofemoral Force Using a Neuromuscular Model.. 2022 , 1	1
542	Inter-strides variability affects internal foot tissue loadings during running.. 2022 , 12, 4227	0
541	EFFECTS OF A PROPHYLACTIC KNEE SLEEVE ON THE ANTERIOR CRUCIATE LIGAMENT AND LOWER EXTREMITY BIOMECHANICS: AN EXAMINATION USING MUSCULOSKELETAL SIMULATION.	
540	Predicting biological joint moment during multiple ambulation tasks.. 2022 , 134, 111020	1
539	Longitudinal Tibia Stress Fracture Risk During High-Volume Training: a Multi-Scale Modeling Pipeline Incorporating Bone Remodeling.. 2022 ,	
538	An Integrated Dynamic Closed Loop Simulation Platform for Elbow Flexion Augmentation Using an Upper Limb Exosuit Model.. 2022 , 9, 768841	1
537	Investigating acute changes in osteoarthritic cartilage by integrating biomechanics and statistical shape models of bone: data from the osteoarthritis initiative.. 2022 , 1	0
536	Predicting Sit-to-Stand Adaptations due to Muscle Strength Deficits and Assistance Trajectories to Complement Them.. 2022 , 10, 799836	
535	Comparison of the arm-lowering performance between Gorilla and Homo through musculoskeletal modeling.	0
534	Markerless vs. Marker-Based Gait Analysis: A Proof of Concept Study.. 2022 , 22,	1
533	Visual programming for accessible interactive musculoskeletal models.. 2022 , 15, 108	
532	Body-Worn IMU-Based Human Hip and Knee Kinematics Estimation during Treadmill Walking.. 2022 , 22,	2
531	Pose2Sim: An End-to-End Workflow for 3D Markerless Sports Kinematics-Part 2: Accuracy.. 2022 , 22,	1
530	Inclusion of image-based in vivo experimental data into the Hill-type muscle model affects the estimation of individual force-sharing strategies during walking.. 2022 , 135, 111033	0

- 529 Ergonomic assessment of office worker postures using 3D automated joint angle assessment. **2022**, 52, 101596 ○
- 528 Activation of the deep hip muscles can change the direction of loading at the hip.. **2022**, 135, 111019 ○
- 527 Shape-model scaled gait models can neglect segment markers without consequential change to inverse kinematics results.. **2022**, 137, 111086 ○
- 526 Effect of simulated changes in pelvic tilt on hip joint forces.. **2022**, 135, 111048 ○
- 525 Can Increased Locomotor Task Difficulty Differentiate Knee Muscle Forces After Anterior Cruciate Ligament Reconstruction?. **2022**, 1-11 ○
- 524 Muscle forces and power are significantly reduced during walking in patients with peripheral artery disease.. **2022**, 135, 111024 ○
- 523 Maximal lateral ligament strain and loading during functional activities: Model-based insights for ankle sprain prevention and rehabilitation.. **2022**, 94, 105623 ○
- 522 On-Line Feasible Wrench Polytope Evaluation Based on Human Musculoskeletal Models: An Iterative Convex Hull Method. **2022**, 7, 5206-5213 1
- 521 Femoral version deformities alter joint reaction forces in dysplastic hips during gait.. **2022**, 135, 111023 ○
- 520 Automated optimization of residual reduction algorithm parameters in OpenSim.. **2022**, 137, 111087 ○
- 519 Neuromuscular response to the stimulation of plantar cutaneous during walking at different speeds.. **2022**, 95, 84-92 ○
- 518 An EMG-Based Constitutive Law for Force Generation in Skeletal Muscle - Part II: Model Validation On the Ankle Joint Complex.. **2022**, ○
- 517 Functional Analysis of Anuran Pelvic and Thigh Anatomy Using Musculoskeletal Modelling of .. **2022**, 10, 806174 1
- 516 Variable Stiffness Shoes for Knee Osteoarthritis: An Evaluation of 3-Dimensional Gait Mechanics and Medial Joint Contact Forces.. **2022**, 1-9 ○
- 515 Comparison of several muscle modeling alternatives for computationally intensive algorithms in human motion dynamics. ○
- 514 Design and Voluntary Control of Variable Stiffness Exoskeleton Based on sEMG Driven Model. **2022**, 7, 5787-5794 2
- 513 Lower-limb muscle function in healthy young and older adults across a range of walking speeds.. **2022**, 94, 124-130 ○
- 512 EMG optimization in OpenSim: A model for estimating lower back kinetics in gait.. **2022**, 103, 103790 1

511	Variations of lower-limb joint kinematics associated with the use of different ankle joint models.. 2022 , 136, 111072	0
510	Multidirectional basketball activities load different regions of the tibia: A subject-specific muscle-driven finite element study.. 2022 , 116392	0
509	A survey of deep reinforcement learning application in 5G and beyond network slicing and virtualization. 2022 , 14, 100142	9
508	Real-time Estimation of the Strength Capacity of the Upper Limb for Physical Human-Robot Collaboration. 2021 , 2021, 4533-4536	2
507	Simulation of impedance control applied to lower limb exoskeletons: assessment of its effectiveness in assisting disabled people during gait swing phase. 2021 , 2021, 4694-4699	
506	Simulating the impact of noise on gait features extracted from smartphone sensor-data for the remote assessment of movement disorders. 2021 , 2021, 6905-6910	0
505	Lower limb prosthesis: Optimization by lattice and four-bar polycentric knee. 2021 , 2021, 4801-4807	
504	Kinematics-vis: A Visualization Tool for the Mathematics of Human Motion.. 2021 , 6,	0
503	Real-Time Tracking of Human Neck Postures and Movements.. 2021 , 9,	1
502	Development of a framework to assess the biomechanical impact of reverse shoulder arthroplasty placement modifications. 2021 ,	
501	Effect of Parameters on Lumbar Compressive Force during Patient Transfer. 2021 , 11, 11622	0
500	Three-Dimensional Upper Body Kinematics and Inter-articular Kinematic Sequence During a Canoe Polo Throw.. 2021 , 3, 777410	
499	A Musculoskeletal Model of the Hand and Wrist Capable of Simulating Functional Tasks.	0
498	Combined Effects of External Moments and Muscle Activations on ACL Loading during Numerical Simulations of a Female Model in OpenSim. 2021 , 11, 11971	
497	Attitude Algorithm and Calculation of Limb Length Based on Motion Capture Data. 2021 ,	
496	Estimating joint moments of stand-up type PMV drivers with and without intention during turning by multiple regression analysis. 2022 ,	
495	Modeling and Simulation of a Fuzzy-Based Human Control Using an Interaction Model Between Human and Active Knee Orthosis. 2022 , 1293-1299	
494	Nonlinear Closed-Loop Control of an OpenSim Wrist Model: Tuning Using Genetic Algorithm. 2022 , 485-489	

493	Estimation of Muscle Activations in Black Belt Taekwondo Athletes During the Bandal Chagui Kick Through Inverse Dynamics. 2022 , 695-702	
492	Leaving flatland: Advances in 3D behavioral measurement.. 2022 , 73, 102522	0
491	Between-Limb Symmetry in ACL and Tibiofemoral Contact Forces in Athletes After ACL Reconstruction and Clearance for Return to Sport.. 2022 , 10, 23259671221084742	0
490	Improved heat coefficients for joint-space metabolic energy expenditure model during level, uphill, and downhill walking.. 2022 , 17, e0267120	
489	Intuitive, Efficient and Ergonomic Tele-Nursing Robot Interfaces: Design Evaluation and Evolution.	
488	Biomechanical analysis of the upper body during overhead industrial tasks using electromyography and motion capture integrated with digital human models. 1	3
487	Survey on Video-Based Biomechanics and Biometry Tools for Fracture and Injury Assessment in Sports. 2022 , 12, 3981	1
486	Effects of Weight-Bearing on Tibiofemoral, Patellofemoral, and Patellar Tendon Kinematics in Older Adults.. 2022 , 10, 820196	1
485	Muscle Force Contributions to Anterior Cruciate Ligament Loading.. 2022 ,	2
484	Data_Sheet_1.PDF. 2020 ,	
483	Data_Sheet_2.pdf. 2020 ,	
482	Image_1.TIF. 2018 ,	
481	Image_2.TIF. 2018 ,	
480	Image_3.TIF. 2018 ,	
479	Table_1.DOCX. 2018 ,	
478	Table_2.DOCX. 2018 ,	
477	Video_1.MP4. 2018 ,	
476	Video_2.AVI. 2018 ,	

475 Data_Sheet_1.PDF. **2020**,

474 Video_1.MP4. **2020**,

473 Video_2.MP4. **2020**,

472 Video_3.MP4. **2020**,

471 Image_1.PDF. **2018**,

470 Image_2.PDF. **2018**,

469 Image_3.pdf. **2018**,

468 Image_4.pdf. **2018**,

467 Image_5.pdf. **2018**,

466 Image_6.PDF. **2018**,

465 Image_7.PDF. **2018**,

464 Image_8.PDF. **2018**,

463 Table_1.PDF. **2018**,

462 Table_2.XLSX. **2018**,

461 Table_3.PDF. **2018**,

460 Table_4.pdf. **2018**,

459 Table_5.PDF. **2018**,

458 Table_6.PDF. **2018**,

457 Table_7.PDF. 2018,

456 Table_8.pdf. 2018,

455 Video_1.MOV. 2018,

454 Video_2.MOV. 2018,

453 Video_3.MOV. 2018,

452 Data_Sheet_1.PDF. 2018,

451 Data_Sheet_2.PDF. 2018,

450 Image_1.JPEG. 2018,

449 Image_10.JPEG. 2018,

448 Image_2.JPEG. 2018,

447 Image_3.JPEG. 2018,

446 Image_4.JPEG. 2018,

445 Image_5.JPEG. 2018,

444 Image_6.JPEG. 2018,

443 Image_7.JPEG. 2018,

442 Image_8.JPEG. 2018,

441 Image_9.JPEG. 2018,

440 Table_1.DOCX. 2018,

439 Video_1.AVI. **2018**,

438 Video_2.AVI. **2018**,

437 Video_3.MP4. **2018**,

436 Image_1.TIF. **2020**,

435 Image_2.TIF. **2020**,

434 Image_3.tif. **2020**,

433 Table_1.docx. **2020**,

432 Table_2.docx. **2020**,

431 Table_3.docx. **2020**,

430 Table_4.docx. **2020**,

429 Table_5.docx. **2020**,

428 Table_6.docx. **2020**,

427 Data_Sheet_1.PDF. **2020**,

426 Video_1.MP4. **2019**,

425 Table_1.xlsx. **2020**,

424 Data_Sheet_1.docx. **2020**,

423 Presentation_1.pdf. **2020**,

422 Data_Sheet_1.docx. **2019**,

421 Data_Sheet_1.pdf. **2020,**

420 Table_1.XLSX. **2020,**

419 Data_Sheet_1.PDF. **2020,**

418 Data_Sheet_1.PDF. **2018,**

417 Video_1.AVI. **2019,**

416 Video_2.AVI. **2019,**

415 Video_3.AVI. **2019,**

414 Video_4.AVI. **2019,**

413 Image_1.TIF. **2019,**

412 Image_2.TIF. **2019,**

411 Image_3.TIF. **2019,**

410 Image_1.PDF. **2020,**

409 Table_1.PDF. **2020,**

408 Video_1.MP4. **2020,**

407 Video_2.MP4. **2020,**

406 Video_3.MP4. **2020,**

405 Video_4.MP4. **2020,**

404 Video_5.MP4. **2020,**

403 Video_6.MP4. **2020**,

402 Video_7.MP4. **2020**,

401 Video_8.MP4. **2020**,

400 Data_Sheet_1.PDF. **2019**,

399 Image_1.pdf. **2019**,

398 Table_1.pdf. **2019**,

397 Table_2.pdf. **2019**,

396 DataSheet1.PDF. **2018**,

395 Data_Sheet_1.PDF. **2018**,

394 Data_Sheet_1.docx. **2018**,

393 Video_1.MP4. **2018**,

392 Video_2.MP4. **2018**,

391 Video_3.MP4. **2018**,

390 Video_4.MP4. **2018**,

389 Video_5.MP4. **2018**,

388 Data_Sheet_1.pdf. **2019**,

387 Quantitative Elbow Spasticity Measurement Based on Muscle Activation Estimation Using Maximal Voluntary Contraction. **2022**, 1-1

386 A Low-Cost Human Gait Analysis System. **2022**, 197-203

- 385 The Neurorobotics Platform Robot Designer: Modeling Morphologies for Embodied Learning Experiments.. **2022**, 16, 856727 0
- 384 Inertial Sensor-to-Segment Calibration for Accurate 3D Joint Angle Calculation for Use in OpenSim.. **2022**, 22, 1
- 383 Challenges in Kinetic-Kinematic Driven Musculoskeletal Subject-Specific Infant Modeling. **2022**, 27, 36
- 382 Full body musculoskeletal model for simulations of gait in persons with transtibial amputation.. **2022**, 1-12 1
- 381 Muscle Forces during Weightbearing Exercises in Medial Knee Osteoarthritis and Varus Malalignment: A Cross-sectional Study.. **2022**, 1
- 380 Investigating the Effect of Keyboard Distance on the Posture and 3D Moments of Wrist and Elbow Joints among Males Using OpenSim.. **2022**, 2022, 5751488 0
- 379 Design of a control framework for lower limb exoskeleton rehabilitation robot based on predictive assessment.. **2022**, 95, 105660 0
- 378 The Biomechanics Effect of Hamstring Flexibility on the Risk of Osgood-Schlatter Disease.. **2022**, 2022, 3733218
- 377 Isometric fascicle behaviour of the biceps femoris long head muscle during Nordic Hamstring Exercise variations. **2022**, 1
- 376 Are lower back demands reduced by improving gait symmetry in unilateral transtibial amputees?. **2022**, 95, 105657 1
- 375 Skin marker-based subject-specific spinal alignment modeling: A feasibility study.. **2022**, 137, 111102 1
- 374 Bioinspired Legged Robot Design via Blended Physical and Virtual Impedance Control. **2022**, 105, 1 2
- 373 A muscle control strategy to alter pedal force direction under multiple constraints: A simulation study.. **2022**, 138, 111114
- 372 EMG-driven fatigue-based self-adapting admittance control of a hand rehabilitation robot.. **2022**, 138, 111104 1
- 371 On the Modeling of Biomechanical Systems for Human Movement Analysis: A Narrative Review. 1 0
- 370 Energy Harvesting from Human Walking Motion using Pendulum-based Electromagnetic Generators. **2022**, 117036 0
- 369 Video-Based 3D pose estimation for residential roofing. 1-9
- 368 Individual muscle force-energy rate is altered during crouch gait: A neuro-musculoskeletal evaluation. **2022**, 111141

- 367 Model-Based Comparison of Passive and Active Assistance Designs in an Occupational Upper Limb Exoskeleton for Overhead Lifting. **2021**, 9, 167-185 1
- 366 Medial and Lateral Tibiofemoral Compressive Forces in Patients Following Unilateral Total Knee Arthroplasty During Stationary Cycling.. **2022**, 1-11
- 365 Postural Control Adaptations in Yoga Single-Leg Support Postures: Comparison Between Practitioners and Nonpractitioners. **2022**, 1-18 0
- 364 Neuromechanical Model-Based Adaptive Control of Bilateral Ankle Exoskeletons: Biological Joint Torque and Electromyogram Reduction Across Walking Conditions. **2022**, 1-15 3
- 363 Deploying and Optimizing Embodied Simulations of Large-Scale Spiking Neural Networks on HPC Infrastructure. **2022**, 16, 0
- 362 Computer Aided Ergonomics: Evaluation Study of a Interaction Model for Digital Human Models. **2022**, 2, 663-672 1
- 361 Adaptations for bipedal walking: Musculoskeletal structure and three-dimensional joint mechanics of humans and bipedal chimpanzees (*Pan troglodytes*). **2022**, 168, 103195 1
- 360 The Exo4Work shoulder exoskeleton effectively reduces muscle and joint loading during simulated occupational tasks above shoulder height. **2022**, 103, 103800 0
- 359 A Comparative Studies of Ten Ergonomics Risk Assessment Methods. **2022**, 153-169
- 358 Design and Evaluation of a Mobile Ankle Exoskeleton With Switchable Actuation Configurations. **2022**, 1-10 1
- 357 A Method for Quantifying Stiffness of Ankle-Foot Orthoses Through Motion Capture and Optimization Algorithm. **2022**, 1-1
- 356 The Influence of a Shoe's Heel-Toe Drop on Gait Parameters during the Third Trimester of Pregnancy. **2022**, 9, 241 1
- 355 A Musculoskeletal Human Model-Based Approach for Evaluating Support Concepts of Exoskeletons for Selected Use Cases. **2022**, 2, 515-524 0
- 354 Investigating and defining outcomes of suprapatellar versus infrapatellar intramedullary nailing of tibial shaft fractures: a protocol for a pilot randomised controlled trial. **2022**, 8, 0
- 353 Conclusion or Illusion: Quantifying Uncertainty in Inverse Analyses From Marker-Based Motion Capture due to Errors in Marker Registration and Model Scaling. **2022**, 10, 0
- 352 Independently ambulatory children with spina bifida experience near-typical joint moments and forces during walking.
- 351 Effect of a valgus brace on medial tibiofemoral joint contact force in knee osteoarthritis with varus malalignment: A within-participant cross-over randomised study with an uncontrolled observational longitudinal follow-up. **2022**, 17, e0257171 0
- 350 Discrete element method simulator for joint dynamics: a case study using a red-tailed hawk's hallux digit.

- 349 Evaluating Anthropometric Scaling of a Generic Adult Model to Represent Pediatric Shoulder Strength. **2022**, 111170
- 348 Tibiofemoral contact force differences between flat flexible and stable supportive walking shoes in people with varus-malaligned medial knee osteoarthritis: A randomized cross-over study. **2022**, 17, e0269331 ○
- 347 Recovery from sagittal-plane whole body angular momentum perturbations during walking. **2022**, 111169 ○
- 346 Muscle contributions to pre-swing biomechanical tasks influence swing leg mechanics in individuals post-stroke during walking. **2022**, 19,
- 345 Which lower limb joints compensate for destabilizing energy during walking in humans?. **2022**, 19, 1
- 344 Shear wave elastography of the brachioradialis spastic muscle and its correlations with biceps brachialis and clinical scales. **2022**, 97, 105687
- 343 A data-driven framework for assessing soldier performance, health, and survivability. **2022**, 104, 103809 ○
- 342 Adaptive Reference Inverse Optimal Control for Natural Walking With Musculoskeletal Models. **2022**, 30, 1567-1575
- 341 Modulation of Prosthetic Ankle Plantarflexion Through Direct Myoelectric Control of a Subject-Optimized Neuromuscular Model. **2022**, 1-8
- 340 Past, Present and Future of Assistive Robotic Lower Limb Exoskeletons. **2022**, 357, 03005
- 339 Muscle Activation Analysis from Gait Kinematics and Reinforcement Learning. **2022**,
- 338 Manipulability Optimization of a Rehabilitative Collaborative Robotic System. **2022**, 10, 452 ○
- 337 Effect of Simulated Mass-tunable Auxetic Midsole On Vertical Ground Reaction Force. **2022**,
- 336 Development and Validation of a Framework for Predictive Simulation of Treadmill Gait. **2022**,
- 335 Effect of Wearing Running Shoes on Lower Limb Kinematics by Using OpenSim Simulation Software. **2022**, 11, 152 ○
- 334 Muscle-driven virtual human motion generation approach based on deep reinforcement learning.
- 333 Exploring lumbo-pelvic functional behaviour patterns during osteopathic motion tests: A biomechanical (en)active inference approach to movement analysis. **2022**, ○
- 332 Model-Based Acetabular Cup Orientation Optimization Based On Minimizing the Risk of Edge-Loading and Implant Impingement Following Total Hip Arthroplasty. **2022**, 1

- 331 Finite Element Methods for Modeling the Pressure Distribution in Human BodyBeat Interactions: A Systematic Review. **2022**, 12, 6160 ○
- 330 Peak Muscle and Joint Contact Forces of Running with Increased Duty Factors. Publish Ahead of Print,
- 329 Estimation of Joint Moments During Turning Maneuvers in Alpine Skiing Using a Three Dimensional Musculoskeletal Skier Model and a Forward Dynamics Optimization Framework. 10,
- 328 Comparison of the dynamics of exoskeletal-assisted and unassisted locomotion in an FDA-approved lower extremity device: Controlled experiments and development of a subject-specific virtual simulator.
- 327 Contributions of individual muscle forces to hip, knee, and ankle contact forces during the stance phase of running: a model-based study. **2022**, 10,
- 326 Golf Swing Biomechanics: A Systematic Review and Methodological Recommendations for Kinematics. **2022**, 10, 91 1
- 325 Hip Contact Force Magnitude and Regional Loading Patterns are Altered in those with Femoroacetabular Impingement Syndrome. Publish Ahead of Print, ○
- 324 Comparison of kinematic parameters of children gait obtained by inverse and direct models. **2022**, 17, e0270423 ○
- 323 Individual Muscle Responses to Mediolateral Foot Placement Perturbations during Walking. **2022**, 111201 ○
- 322 The Kinematic and Kinetic Responses of the Trunk and Lower Extremity Joints during Walking with and without the Spinal Orthosis. **2022**, 19, 6952
- 321 Sensitivity analysis guided improvement of an electromyogram-driven lumped parameter musculoskeletal hand model. **2022**, 141, 111200 1
- 320 Assigning trabecular bone material properties in finite element models simulating the pelvis before and after the development of peri-prosthetic osteolytic lesions. **2022**, 133, 105311
- 319 Lower Back Kinetic Demands During Induced Lower Limb Gait Asymmetries.
- 318 Prediction of Contralateral Lower-Limb Joint Angles Using Vibroarthrography and Surface Electromyography Signals in Time-Series Network. **2022**, 1-8 1
- 317 Feasibility evaluation of a dual-mode ankle exoskeleton to assist and restore community ambulation in older adults. **2022**, 3, ○
- 316 OpenSim Model for Biomechanical Analysis with the Open-Source Bionic Leg. **2022**,
- 315 Biomechanical Design of a Passive Knee Exoskeleton for Adaptive Walking Assistance. **2022**,
- 314 Transfer Learning of Deep Neural Network Human Pose Estimator by Domain-Specific Data for Video Motion Capturing. **2022**,

- 313 MyoSim: Fast and physiologically realistic MuJoCo models for musculoskeletal and exoskeletal studies. **2022**, 0
- 312 A Low-Profile Hip Exoskeleton for Pathological Gait Assistance: Design and Pilot Testing. **2022**, 0
- 311 Non-age-related gait kinematics and kinetics in the elderly. **2022**, 23, 0
- 310 Comparison of landing kinematics and kinetics between experienced and novice volleyball players during block and spike jumps. **2022**, 14, 0
- 309 BİYOMEKANİK ANALİZDE YER KALDIRMA HAREKETİ YAKALAMA YÖNTEMLERİ VE BİRNEK UYGULAMA. 0
- 308 An approximate stochastic optimal control framework to simulate nonlinear neuro-musculoskeletal models in the presence of noise. **2022**, 18, e1009338 4
- 307 The impact of intrinsic muscle properties on simulated reaching performance. 1-12 1
- 306 Evaluating Muscle Synergies With EMG Data and Physics Simulation in the Neurorobotics Platform. 16, 0
- 305 Triceps brachii hypertrophy is substantially greater after elbow extension training performed in the overhead versus neutral arm position. 1-26 0
- 304 Patellofemoral joint load and knee abduction/adduction moment are sensitive to variations in femoral version and individual muscle forces. 0
- 303 Human-Exoskeleton Joint Coordination Assessment: A Case Study on the Shoulder and Elbow Joints. 1
- 302 OpenCap: 3D human movement dynamics from smartphone videos. 0
- 301 Finding Emergent Gait Patterns May Reduce Progression of Knee Osteoarthritis in a Clinically Relevant Time Frame. **2022**, 12, 1050 0
- 300 Muscle coordination retraining inspired by musculoskeletal simulations reduces knee contact force. **2022**, 12, 0
- 299 Muscle function during single leg landing. **2022**, 12, 0
- 298 Triceps surae muscle force potential and force demand shift with altering stride frequency in running. 0
- 297 A penalty method for constrained multibody kinematics optimisation using a Levenberg-Marquardt algorithm. 1-12 0
- 296 Validation of a Patient-Specific Musculoskeletal Model for Lumbar Load Estimation Generated by an Automated Pipeline From Whole Body CT. 10, 1

- 295 Low effective mechanical advantage of giraffes' limbs during walking reveals trade-off between limb length and locomotor performance. **2022**, 119, 1
- 294 The Effect of Lower Limb Exoskeleton Alignment on Knee Rehabilitation Efficacy. **2022**, 10, 1291
- 293 Interlimb coordination in Parkinson's disease is affected by a visuospatial dual task. 0
- 292 Gait asymmetry of lower extremities reduced immediately after minimally invasive surgery among patients with lumbar disc herniation. **2022**, 98, 105720
- 291 Electromyography measurements of the deep hip muscles do not improve estimates of hip contact force. **2022**, 141, 111220
- 290 Inter-limb differences in in-vivo tendon behavior, kinematics, kinetics and muscle activation during running. **2022**, 141, 111209
- 289 Biomechanical compensations during a stand-to-sit maneuver using transfemoral osseointegrated prostheses: A case series. **2022**, 98, 105715 0
- 288 An open-source OpenSim ankle-foot musculoskeletal model for assessment of strains and forces in dense connective tissues. **2022**, 224, 106994
- 287 Relative contribution of altered neuromuscular factors to muscle activation-force relationships following chronic stroke: A simulation study. **2022**, 66, 102680
- 286 Pelvis perturbations in various directions while standing in staggered stance elicit concurrent responses in both the sagittal and frontal plane.
- 285 Multibody kinematic optimisation vs body fat: A performance analysis.
- 284 A Musculoskeletal Model for Estimating Hip Contact Pressure During Walking.
- 283 The effects of anatomical errors on shoulder kinematics computed using multi-body models. 1
- 282 Muscle synergies are flexibly recruited during gait pattern exploration using motor control-based biofeedback.
- 281 Biomechanical Modeling of Brachialis-to-Wrist Extensor Muscle Transfer Function for Daily Activities in Tetraplegia. **2022**, 7,
- 280 Biomechanical modelling for quantitative assessment of gait kinematics in drop foot patients with ankle foot orthosis. **2022**,
- 279 Robust Control of a 2-DOF Lower Limb Exoskeleton Rehabilitation Robot Using Nonsingular Terminal Sliding Mode. **2022**,
- 278 Unconstrained and constrained estimation of a linear EMG-to-force mapping during isometric force generation. **2022**, 1

- 277 Biomechanical analysis and modeling of anterior cruciate ligament rupture conditions: focus on female football (soccer) players. **2022**,
- 276 Effects of Footwear on Anterior Cruciate Ligament Forces during Landing in Young Adult Females. **2022**, 12, 1119 1
- 275 Can static optimization detect changes in peak medial knee contact forces induced by gait modifications?.
- 274 Evidence for the Applicability of Musculoskeletal Human Models to Improve Outcomes of Total Hip Arthroplasty. **2023**, 194-207
- 273 A subject-specific musculoskeletal model to predict the tibiofemoral contact forces during daily living activities. 1-14 0
- 272 Development and Characterization of a 3D Printed Soft Sensor to Identify Physiological Joint Forces. **2022**,
- 271 Rapid bilevel optimization to concurrently solve musculoskeletal scaling, marker registration, and inverse kinematic problems for human motion reconstruction. 0
- 270 Physical factors that differentiate body kinematics between treadmill and overground walking. 10,
- 269 Untethered Muscle Tracking Using Magnetomicrometry. 0
- 268 Effects of footwear with different longitudinal bending stiffness on biomechanical characteristics and muscular mechanics of lower limbs in adolescent runners. 13, 0
- 267 Measurement error associated with gait cycle selection in treadmill running at various speeds.
- 266 Evaluation of Load-To-Strength Ratios in Metastatic Vertebrae and Comparison With Age- and Sex-Matched Healthy Individuals. 10,
- 265 Effect of rearfoot valgus on biomechanics during barbell squatting: A study based on OpenSim musculoskeletal modeling. 16, 0
- 264 The effects of operating height and the passage of time on the end-point performance of fine manipulative tasks that require high accuracy. 13, 1
- 263 A Preliminary Musculoskeletal Modeling Approach for Handwriting. **2023**, 687-694
- 262 Gait biomechanics after proximal femoral nailing of intertrochanteric fractures.
- 261 OpenColab project: OpenSim in Google colaboratory to explore biomechanics on the web. 1-9
- 260 Fused ultrasound and electromyography-driven neuromuscular model to improve plantarflexion moment prediction across walking speeds. **2022**, 19, 0

- 259 Upper limb soft robotic wearable devices: a systematic review. **2022**, 19, 2
- 258 Predicting the hip joint centre in children: New regression equations, linear scaling, and statistical shape modelling. **2022**, 142, 111265
- 257 Integrating wearables and modelling for monitoring rehabilitation following total knee joint replacement. **2022**, 225, 107063
- 256 A New Robotic Knee Impedance Control Parameter Optimization Method Facilitated by Inverse Reinforcement Learning. **2022**, 7, 10882-10889
- 255 Modeling muscle force alteration during walking after selective dorsal rhizotomy. **2022**, 97, S244-S245
- 254 Lower back kinetic demands during induced lower limb gait asymmetries. **2022**, 98, 101-108
- 253 Musculoskeletal adaptation of young and older adults in response to challenging surface conditions. **2022**, 144, 111270
- 252 Automated estimation of ankle muscle EMG envelopes and resulting plantar-dorsi flexion torque from 64 garment-embedded electrodes uniformly distributed around the human leg. **2022**, 67, 102701
- 251 Effect of functional weightbearing versus non-weightbearing quadriceps strengthening exercise on contact force in varus-malaligned medial knee osteoarthritis: A secondary analysis of a randomized controlled trial. **2022**, 39, 50-61
- 250 Using static postures to estimate spinal loading during dynamic lifts with participant-specific thoracolumbar musculoskeletal models. **2023**, 106, 103869
- 249 Tibiofemoral Compressive Force During Downhill Walking in Patients with Primary Total Knee Arthroplasty: A Statistical Parametric Mapping Approach.
- 248 Sonomyographic Prosthetic Interaction: Online Simultaneous and Proportional Control of Wrist and Hand Motions Using Semisupervised Learning. **2022**, 1-10
- 247 Simulation-Driven Design of Smart Gloves for Gesture Recognition.
- 246 A Hip Active Lower Limb Support Exoskeleton for Load Bearing Sit-To-Stand Transfer. **2022**, 24-35
- 245 Robots Helping Humans: Collaborative Shelf Refilling. **2022**, 117-135
- 244 Fungi Network Simulation for the Study of Communication Systems. **2022**, 452-462
- 243 Policy Design for an Ankle-Foot Orthosis Using Simulated Physical Human-Robot Interaction via Deep Reinforcement Learning. **2022**, 30, 2186-2197
- 242 Learning Ergonomic Control in Human-Robot Symbiotic Walking. **2022**, 1-16

241	The Visual Accelerometer: A High-fidelity Optic-to- Inertial Transformation Framework for Wearable Health Computing. 2022 ,	0
240	OSSO: Obtaining Skeletal Shape from Outside. 2022 ,	1
239	Analysis of movement of an elbow joint with a wearable robotic exoskeleton Using OpenSim software. 2022 ,	0
238	An investigation of the ankle contact forces in a foot with hammer toe deformity. A comparison of patient-specific approaches using finite element modeling and musculoskeletal simulation. 2022 ,	0
237	How Ankle Exoskeleton Assistance Affects the Mechanics of Incline Walking and Stair Ascent in Cerebral Palsy. 2022 ,	0
236	Dynamic Musculoskeletal Simulation of a Passive Exoskeleton for Simulating Contracture. 2022 ,	0
235	Constructing Constraint Force Field in Musculoskeletal Robot by Co-optimizing Muscle Arrangements and Constant Activations. 2022 ,	0
234	Upper limb exosuit cable routing optimization. 2022 ,	0
233	Digital Guinea Pig: Merits and Methods of Human-in-the-Loop Simulation for Upper-Limb Exoskeletons. 2022 ,	0
232	Modifications to the net knee moments lead to the greatest improvements in accelerative sprinting performance: a predictive simulation study. 2022 , 12,	0
231	Young Adults Use Whole-Body Feedback to Perceive Small Locomotor Disturbances.	0
230	The effect of footwear on mechanical behaviour of the human ankle plantar-flexors in forefoot runners. 2022 , 17, e0274806	0
229	EMG-driven musculoskeletal model calibration with estimation of unmeasured muscle excitations via synergy extrapolation. 10,	0
228	Pose2Sim: An open-source Python package for multiview markerless kinematics. 2022 , 7, 4362	0
227	Two-Experiment Examination of Habitual and Manipulated Foot Placement Angles on the Kinetics, Kinematics, and Muscle Forces of the Barbell Back Squat in Male Lifters. 2022 , 22, 6999	0
226	Computational biomechanics of human knee joint in stair ascent: Muscle-ligament-contact forces and comparison with level walking.	0
225	Numerical Evaluations of an Uncemented Acetabular Component in Total Hip Arthroplasty: Effects of Loading and Interface Conditions. 2022 ,	0
224	Evaluation of surgical accuracy and gait function following implementation of a virtual planning workflow for juvenile proximal femoral osteotomies. 2022 , 97, S301-S302	0

- 223 In-toeing gait requires less muscular effort and reduces lower limb joint loads in people with internal torsional deformities. **2022**, 97, S391-S392 ○
- 222 Study protocol for double-blind, randomised placebo-controlled trial evaluating semitendinosus function and morbidity following tendon harvesting for anterior cruciate ligament reconstruction augmented by platelet-rich plasma. **2022**, 12, e061701 ○
- 221 Hamstrings force-length relationships and their implications for angle-specific joint torques: a narrative review. **2022**, 14, 2
- 220 Personalized Motion Analysis with Consideration of Body Segment Shapes. **2022**, ○
- 219 Development of a more biofidelic musculoskeletal model with humeral head translation and glenohumeral ligaments. 1-8 ○
- 218 The Correlation between Bone Density and Mechanical Variables in Bone Remodelling Models: Insights from a Case Study Corresponding to the Femur of a Healthy Adult. **2022**, 10, 3367 ○
- 217 A comparison of machine learning models accuracy in predicting lower-limb joints kinematics, kinetics, and muscle forces from wearable sensors. ○
- 216 A Two-Degree-of-Freedom Knee Model Predicts Full Three-Dimensional Tibiofemoral and Patellofemoral Joint Motion During Functional Activity. ○
- 215 Fatigue Effects on the Lower Leg Muscle Architecture Using Diffusion Tensor MRI. **2022**, 12, 9767 ○
- 214 Smartphone videos of the sit-to-stand test predict osteoarthritis and health outcomes in a nationwide study. ○
- 213 Comparison of Walking Biomechanics After Physical Therapist-led Care or Hip Arthroscopy for Femoroacetabular Impingement Syndrome: A Secondary Analysis From a Randomized Controlled Trial. **2022**, 50, 3198-3209 ○
- 212 A novel implantable mechanism-based tendon transfer surgery for adult acquired flatfoot deformity: Evaluating feasibility in biomechanical simulation. **2022**, 17, e0270638 ○
- 211 Biosignal processing methods to explore the effects of side-dominance on patterns of bi- and unilateral standing stability in healthy young adults. 13, ○
- 210 Preliminary Validation of a Virtual Environment for Simulation and Recognition of Human Gestures. **2023**, 605-613 ○
- 209 A finite element model of the deltoid muscle and biomechanical analysis of the standing dumbbell fly for shoulder exercises. **2022**, 44, ○
- 208 A developed multibody knee model for unloading knee with cartilage penetration depth control. 095441192211220 ○
- 207 Understanding the impact of selective dorsal rhizotomy in muscle energy expenditure during walking through neuro-musculoskeletal modeling. **2022**, 97, S237-S238 ○
- 206 Musculoskeletal simulations capture the experimentally observed response to ankle-foot-orthosis use in a healthy subject. **2022**, 97, S34-S35 ○

205	Foot form and function: Variable and versatile, yet sufficiently related to predict one from the other.	0
204	Facilitation of dependent transfers with functional neuromuscular stimulation: a computer simulation study.	0
203	Simulated Tibiofemoral Joint Reaction Forces for Three Previously Studied Gait Modifications in Healthy Controls. 2022 ,	0
202	The Development and Evaluation of a Fully Automated Markerless Motion Capture Workflow. 2022 , 111338	0
201	Altered movement strategy during functional movement after an ACL injury, despite ACL reconstruction. 4,	0
200	Machine Learning for Musculoskeletal Modeling of Upper Extremity. 2022 , 22, 18684-18697	1
199	Musculoskeletal Gait Simulation to Investigate Biomechanical Effect of Knee Brace. 2023 , 145,	0
198	Robust estimation of lumbar joint forces in symmetric and asymmetric lifting tasks via large-scale electromyography-driven musculoskeletal models. 2022 , 144, 111307	0
197	Differences in Muscle Demand and Joint Contact Forces Between Running and Skipping. 2022 , 1-9	0
196	Data-driven Gait-predictive Model for Anticipatory Prosthesis Control. 2022 ,	0
195	Modulation of Prosthetic Ankle Plantarflexion Through Direct Myoelectric Control of a Subject-Optimized Neuromuscular Model. 2022 ,	0
194	Effect of different landing actions on knee joint biomechanics of female college athletes: Based on opensim simulation. 10,	0
193	Effects of auxetic shoe on lumbar spine kinematics and kinetics during gait and drop vertical jump by a combined in vivo and modeling investigation. 2022 , 12,	1
192	Untethered muscle tracking using magnetomicrometry. 10,	0
191	Dysfunctional neuro-muscular mechanisms explain gradual gait changes in prodromal spastic paraplegia.	0
190	Minimization of metabolic cost of transport predicts changes in gait mechanics over a range of ankle-foot orthosis stiffnesses in individuals with bilateral plantar flexor weakness.	0
189	Comments on Harkness-Armstrong et al. (2021) In vivo operating lengths of the gastrocnemius muscle during gait in children who idiopathically toe-walk	0
188	A discrete mechanics approach for musculoskeletal simulations with muscle wrapping.	0

187	Pilot Validation Study of Inertial Measurement Units and Markerless Methods for 3D Neck and Trunk Kinematics during a Simulated Surgery Task. 2022 , 22, 8342	0
186	Biohybrid Robots: Recent progress, challenges, and perspectives.	1
185	Game-play affects hamstring but not adductor muscle fibre mechanics in elite U20 basketball athletes. 1-17	0
184	Multi-level personalization of neuromusculoskeletal models to estimate physiologically plausible knee joint contact forces in children.	1
183	Assisting walking balance using a bio-inspired exoskeleton controller.	0
182	Estimating lower extremity joint angles during gait using reduced number of sensors count via deep learning. 2022 ,	0
181	Towards improving the accuracy of musculoskeletal simulation of dynamic three-dimensional spine rotations with optimizing model and algorithm. 2022 , 103916	0
180	Variability and Impact of Musculoskeletal Modeling Parameters for the Human Elbow.	0
179	Intra-operator Repeatability of Manual Segmentations of the Hip Muscles on Clinical Magnetic Resonance Images.	0
178	Evaluation of Error-State Kalman Filter Method for Estimating Human Lower-Limb Kinematics during Various Walking Gaits. 2022 , 22, 8398	1
177	Design and transmission modeling of a soft elbow exosuit using double artificial tendon system. 095440622211298	0
176	Potential of Neuromuscular Electrical Stimulation as a Bone Loss Countermeasure in Microgravity. 2022 , 93, 774-782	0
175	Movement compensation is driven by the deltoid and teres minor muscles following severe rotator cuff tear. 2022 , 100, 105799	0
174	Effects of movement direction and limb dominance on ankle muscular force in sidestep cutting. 2022 , 110, 103914	0
173	Independently ambulatory children with spina bifida experience near-typical knee and ankle joint moments and forces during walking. 2023 , 99, 1-8	0
172	A Musculoskeletal Model of the Hand and Wrist Capable of Simulating Functional Tasks. 2022 , 1-12	0
171	Extended Kalman Filter for Magnetometer-Free Estimation of Spacesuit Wearer Joint Kinematics Using Inertial Measurements. 2019 ,	1
170	Hip and knee joint kinematics predict quadriceps hyperreflexia in people with post-stroke Stiff-Knee gait.	0

- 169 Upper Extremity Joint Torque Estimation Through an EMG-Driven Model. 1-25 ○
- 168 The Number and Structure of Muscle Synergies Depend on the Number of Recorded Muscles: A Pilot Simulation Study with OpenSim. **2022**, 22, 8584 1
- 167 A biomechanical analysis of dumbbell curl and investigation of the effects of increasing loads on biceps brachii using a finite element model. **2022**, 5, 507-516 ○
- 166 Computational modeling and simulation of closed chain arm-robot multibody dynamic systems in OpenSim. ○
- 165 Which typical floor movements of men's artistic gymnastics result in the most extreme lumbar lordosis and ground reaction forces?. 1-16 ○
- 164 Comparison of a Scaled Cadaver-Based Musculoskeletal Model with a Clinical Upper Extremity Model. **2022**, 1-23 ○
- 163 Musculotendon Parameters in Lower Limb Models: Simplifications, Uncertainties, and Muscle Force Estimation Sensitivity. ○
- 162 Biceps Tenodesis cannot be used as primary treatment option in baseball pitchers with intact rotator cuff muscles. **2022**, 105819 ○
- 161 Description, Development and Dissemination of Two Consistent Marker-based and Markerless Multibody Models. ○
- 160 Learning to Ascend Stairs and Ramps: Deep Reinforcement Learning for a Physics-Based Human Musculoskeletal Model. **2022**, 22, 8479 ○
- 159 Dataset of lower extremity joint angles, moments and forces in distance running. **2022**, 8, e11517 ○
- 158 Effects of changes in optimal muscle fibre length in the biceps femoris long head on muscle force during the late swing phase of maximal speed sprinting: a simulation study. 1-16 ○
- 157 Electromyography-driven model-based estimation of ankle torque and stiffness during dynamic joint rotations in perturbed and unperturbed conditions. **2022**, 145, 111383 ○
- 156 Fusion of Video and Inertial Sensing Data via Dynamic Optimization of a Biomechanical Model. ○
- 155 Multi-phase optimization model predicts manual lifting motions with less reliance on experiment-based posture data. 1-28 ○
- 154 An investigation into the hammer toe effects on the lower extremity mechanics and plantar fascia tension: A case for a vicious cycle and progressive damage. **2023**, 152, 106381 ○
- 153 The Modelling of Different Dog Breeds on the Basis of a Validated Model. **2022**, 107-110 ○
- 152 Contribution of lower extremity muscles to center of mass acceleration during walking: Effect of body weight. **2023**, 146, 111398 ○

- 151 The biomechanical fingerprint of hip and knee osteoarthritis patients during activities of daily living. **2023**, 101, 105858 ○
- 150 Influence of muscle loading on early-stage bone fracture healing. **2023**, 138, 105621 ○
- 149 Ankle joint contact force profiles differ between those with and without chronic ankle instability during walking. **2023**, 100, 1-7 ○
- 148 Imaging-based musculoskeletal models alter muscle and joint contact forces but do not improve the agreement with experimentally measured electromyography signals in children with cerebral palsy. **2023**, 100, 91-95 ○
- 147 Improving Muscle Force Distribution Model Using Reflex Excitation: Towards A Model-Based Exoskeleton Torque Optimization Approach. **2022**, 1-1 ○
- 146 Recurrent Neural Network based Partially Observed Feedback Control of Musculoskeletal Robots. **2022**, ○
- 145 Agile development of a digital exposure treatment for youth with chronic musculoskeletal pain: protocol of a user-centred design approach and examination of feasibility and preliminary efficacy. **2022**, 12, e065997 ○
- 144 Development of a Force Sensor for Biomechanical Simulations of a Cycling Activity. **2022**, ○
- 143 Biomechanical Characteristics of Long Stair Climbing in Healthy Young Individuals in a Real-World Study Using a Wearable Motion Analysis System. **2022**, 2, 601-612 ○
- 142 Predictive multibody dynamic simulation of human neuromusculoskeletal systems: a review. ○
- 141 How do the femoral anteversion angle and neck-shaft angle influence muscle forces and joint loading during walking?. ○
- 140 A distal external focus of attention facilitates compensatory coordination of body parts. 1-10 ○
- 139 How Do Joint Kinematics and Kinetics Change When Walking Overground with Added Mass on the Lower Body?. **2022**, 22, 9177 ○
- 138 3D volumetric muscle reconstruction of the *Australopithecus afarensis* pelvis and limb, with estimations of limb leverage. ○
- 137 Movement in low gravity environments (MoLo) programme – The MoLo-L.O.O.P. study protocol. **2022**, 17, e0278051 ○
- 136 Effects of Increased Arm Muscle Tone on Postural Recovery from External Forces: A simulation study. **2022**, ○
- 135 Be Careful What You Wish for: Cost Function Sensitivity in Predictive Simulations for Assistive Device Design. **2022**, 14, 2534 ○
- 134 Differences in Driver Behavior between Manual and Automatic Turning of an Inverted Pendulum Vehicle. **2022**, 22, 9931 ○

- 133 Accuracy-speed-stability trade-offs in a targeted stepping task are similar in young and older adults. ○
- 132 Estimation and Comparison of Knee Joint Contact Forces During Heel Contact and Heel Rise Deep Squatting. ○
- 131 Alterations in the Functional Knee Alignment Are Not an Effective Strategy to Modify the Mediolateral Distribution of Knee Forces During Closed Kinetic Chain Exercises. **2022**, 38, 424-433 ○
- 130 Prediction of in vivo hip contact forces during common activities of daily living using a segment-based musculoskeletal model. 10, ○
- 129 Study on Simulation and Fatigue Assessment Method for Shipbuilding Manual Operation in Narrow Space. **2022**, ○
- 128 Reducing the Complexity of Musculoskeletal Models Using Gaussian Process Emulators. **2022**, 12, 12932 ○
- 127 The impact of the parameters of the constitutive model on the distribution of strain in the femoral head. ○
- 126 Bilateral upper extremity trunk model for cross-country sit-skiing double poling propulsion: model development and validation. ○
- 125 Running Mechanics After Repeated Sprints in Femoroacetabular Impingement Syndrome, Cam Morphology, and Controls. 194173812211315 ○
- 124 Effects of Running in Minimal and Conventional Footwear on Medial Tibiofemoral Cartilage Failure Probability in Habitual and Non-Habitual Users. **2022**, 11, 7335 ○
- 123 Characterization of Postural Control in Post-Stroke Patients by Musculoskeletal Simulation. **2022**, 34, 1451-1462 ○
- 122 On the estimation of hip joint loads through musculoskeletal modeling. ○
- 121 A computational method for estimating trunk muscle activations during gait using lower extremity muscle synergies. 10, ○
- 120 The Role of Multifidus in the Biomechanics of Lumbar Spine: A Musculoskeletal Modeling Study. **2023**, 10, 67 ○
- 119 Lower Limb Muscle Forces in Table Tennis Footwork during Topspin Forehand Stroke Based on the OpenSim Musculoskeletal Model: A Pilot Study. **2022**, 19, 221-235 ○
- 118 A Comprehensive Analysis of Lower Extremity Based Gait Cycle Disorders and Muscle Analysis. **2022**, 325-336 ○
- 117 After a Decade of Teleimpedance: A Survey. **2022**, 1-16 ○
- 116 Modelling the interaction between wearable assistive devices and digital human models: a systematic review. 10, ○

- 115 Brain-inspired Intelligent Robotics: Theoretical Analysis and Systematic Application. **2023**, 20, 1-18 ○
- 114 Evaluation of spinal force normalization techniques. **2023**, 111441 ○
- 113 Virtual Stiffness: A Novel Biomechanical Approach to Estimate Limb Stiffness of a Multi-Muscle and Multi-Joint System. **2023**, 23, 673 2
- 112 The contribution of multibody optimization when using inertial measurement units to compute lower-body kinematics. **2023**, 111, 103927 ○
- 111 Three Dimensional Lower Extremity Musculoskeletal Geometry of the Visible Human Female and Male. **2023**, 10, ○
- 110 A Statistical Parametric Mapping Analysis Approach for the Evaluation of a Passive Back Support Exoskeleton on Mechanical Loading During a Simulated Patient Transfer Task. **2023**, 1-12 ○
- 109 Musculoskeletal-Modeling-Based, Full-Body Load-Assessment Tool for Ergonomists (MATE): Method Development and Proof of Concept Case Studies. **2023**, 20, 1507 ○
- 108 Modular and Hybrid Numerical-Analytical Approach - A Case Study on Improving Computational Efficiency for Series-Parallel Hybrid Robots. **2022**, ○
- 107 From Human Walking to Bipedal Robot Locomotion: Reflex Inspired Compensation on Planned and Unplanned Downsteps. **2022**, ○
- 106 RCare World: A Human-centric Simulation World for Caregiving Robots. **2022**, ○
- 105 Inverse Kinematics of Hybrid Multi-link System and its Application to Motion Capture for Athlete Wearing Sports Prosthesis. **2022**, ○
- 104 Gait cycle modeling in cerebral palsy condition. **2022**, ○
- 103 Minimalistic Soft Exosuit for Assisting the Shoulder via Biomechanics-Aware Optimization. **2022**, ○
- 102 Enabling Patient- and Teleoperator-led Robotic Physiotherapy via Strain Map Segmentation and Shared-authority. **2022**, ○
- 101 Predictive simulation of sit-to-stand based on reflexive-controllers. **2022**, 17, e0279300 ○
- 100 Designing Personalised Rehabilitation Controllers using Offline Model-Based Optimisation. **2022**, ○
- 99 Towards Single Camera Human 3D-Kinematics. **2023**, 23, 341 1
- 98 Elle Kaldēma Hareketinde Kutu Boyutunun L5/S1 Eklemine Etkisinin İncelenmesi. ○

97	Effects of Obesity on Medial Tibiofemoral Cartilage Mechanics in Females: An Exploration Using Musculoskeletal Simulation and Probabilistic Cartilage Failure Modelling. 2023 , 13, 270	0
96	Musculoskeletal Modeling of the Foot and Ankle. 2023 , 387-396	0
95	A machine learning approach to quantify individual gait responses to ankle exoskeletons.	0
94	Integrated Laboratories for Pursuing Pedal Pathologies. 2023 , 245-264	0
93	Effects of powered ankle-foot orthoses mass distribution on lower limb muscle forces: A simulation study.	0
92	Examination of 2D frontal and sagittal markerless motion capture: Implications for 2D and 3D markerless applications.	0
91	Quantitative biomechanical assessment of locomotor capabilities of the stem archosaur <i>Euparkeria capensis</i> . 2023 , 10,	1
90	Knee Joint Contact Forces during High-Risk Dynamic Tasks: 90° Change of Direction and Deceleration Movements. 2023 , 10, 179	0
89	Ergonomic human-robot collaboration in industry: A review. 9,	0
88	Whole-body movement modeling in realistic environments for understanding performance and injury. 2023 , 709-765	0
87	Real-Time Gait Phase Estimation Based on Neural Network and Assistance Strategy Based on Simulated Muscle Dynamics for an Ankle Exosuit. 2023 , 1-1	0
86	Musculoskeletal simulations to examine the effects of accentuated eccentric loading (AEL) on jump height. 11, e14687	0
85	Kinematic Motion Analysis with Volumetric Motion Capture. 2022 ,	0
84	Computational simulation for lifting motion of musculoskeletal arm. 2022 ,	1
83	Inverse kinematics associated with the degree of freedoms and constraints of shoulder models during the middle direct punch. 2022 ,	0
82	IMU-Based Estimation of the Knee Contact Force using Artificial Neural Networks. 2022 ,	0
81	Lower Extremity Inverse Kinematics Results Differ Between Inertial Measurement Unit- and Marker-Derived Gait Data. 2023 , 1-10	0
80	Kinematic analysis and development of cable-driven rehabilitation robot for cerebral palsy patients. 2023 , 20, 172988062311573	0

- 79 Pelvis perturbations in various directions while standing in staggered stance elicit concurrent responses in both the sagittal and frontal plane. **2023**, 18, e0272245 ○
- 78 Assist-As-Needed Control of a Hip Exoskeleton, Using Central Pattern Generators in a Stride Management Strategy. **2023**, 107, ○
- 77 Gait Asymmetry Variation in Kinematics, Kinetics, and Muscle Force along with the Severity Levels of Knee Osteoarthritis. ○
- 76 Can static optimization detect changes in peak medial knee contact forces induced by gait modifications?. **2023**, 152, 111569 ○
- 75 Differences in hip musculoskeletal loads between limbs during daily activities in patients with 3D-printed hemipelvic reconstructions following tumor surgery. **2023**, 102, 56-63 ○
- 74 The effect of hip exoskeleton weight on kinematics, kinetics, and electromyography during human walking. **2023**, 152, 111552 ○
- 73 Susceptibility to walking balance perturbations in young adults is largely unaffected by anticipation. **2023**, 89, 103070 ○
- 72 Young adults use whole-body feedback and ankle proprioception to perceive small locomotor disturbances. **2023**, 89, 103084 ○
- 71 Maintaining soldier musculoskeletal health using personalised digital humans, wearables and/or computer vision. **2023**, ○
- 70 A Shoulder Musculoskeletal Model with Three-Dimensional Complex Muscle Geometries. ○
- 69 Musculotendon Parameters in Lower Limb Models: Simplifications, Uncertainties, and Muscle Force Estimation Sensitivity. ○
- 68 Knee Joint Function in Healthy and ACL-Reconstructed Collegiate Female Lacrosse Players: A Pilot Study. ○
- 67 A digital twin framework for robust control of robotic-biological systems. **2023**, 152, 111557 ○
- 66 Kompozitini blokų popieriaus gamybos dumblo akustinių savybių tyrimai ir garso absorberio kūrimas. ○
- 65 Biomechaniniu raumens-skeleto modelių grėtas vaikų eisenos tyrimas. ○
- 64 Tibiofemoral compressive force during downhill walking in patients with primary total knee arthroplasty: A statistical parametric mapping approach. **2023**, 102, 105900 ○
- 63 Muscle-Specific Contributions to Vertical Ground Reaction Force Profiles During Countermovement Jumps: Case Studies in College Basketball Players. **2023**, Publish Ahead of Print, ○
- 62 Machine-Learning-Based Methodology for Estimation of Shoulder Load in Wheelchair-Related Activities Using Wearables. **2023**, 23, 1577 ○

61	Numerical instability of Hill-type muscle models. 2023 , 20,	1
60	A Simple OpenSim-Simulink Interface for Cascaded Zero-Force Control of Human-Robot Interaction in a Hip Exoskeleton Robot. 2022 ,	0
59	The influence of elastic ankle exoskeletons on lower limb mechanical energetics during unexpected perturbations. 2023 , 10,	1
58	Multibody Models of the Thoracolumbar Spine: A Review on Applications, Limitations, and Challenges. 2023 , 10, 202	0
57	Linking whole-body angular momentum and step placement during perturbed human walking. 2023 , 226,	0
56	Patellofemoral joint loading and early osteoarthritis after ACL reconstruction.	0
55	Does joint impedance improve dynamic leg simulations with explicit and implicit solvers?.	0
54	Comparison of the dynamics of exoskeletal-assisted and unassisted locomotion in an FDA-approved lower extremity device: Controlled experiments and development of a subject-specific virtual simulator. 2023 , 18, e0270078	0
53	Use of Surface Electromyography to Estimate End-Point Force in Redundant Systems: Comparison between Linear Approaches. 2023 , 10, 234	0
52	Versatile clinical movement analysis using statistical parametric mapping in MovementRx. 2023 , 13,	0
51	The influence of wearing an ultrasound device on gait in children with cerebral palsy and typically developing children. 2023 , 101, 138-144	0
50	Identification of characteristics of foot position and angle during swing phase in fallers using principal component analysis. 11,	0
49	Influences of EMG-informed musculoskeletal simulation approaches on estimations of lower limb muscle and joint contact forces. 2023 , 100, 7-8	0
48	Kinematics, dynamics, and muscle-synergy analysis of single-leg Yoga postures.	0
47	Exoskeletons need to react faster than physiological responses to improve standing balance. 2023 , 8,	0
46	Neuromusculoskeletal model calibration accounts for differences in electromechanical delay and maximum isometric muscle force. 2023 , 149, 111503	0
45	MotorNet: a Python toolbox for controlling differentiable biomechanical effectors with artificial neural networks.	0
44	Using Finite Element Modeling in Bone Mechanoadaptation. 2023 , 21, 105-116	0

- 43 Symbiotic electroneural and musculoskeletal framework to encode proprioception via neurostimulation: ProprioStim. **2023**, 26, 106248 ○
- 42 Leveraging Multivariable Linear Regression Analysis to Identify Patients with Anterior Cruciate Ligament Deficiency Using a Composite Index of the Knee Flexion and Muscle Force. **2023**, 10, 284 ○
- 41 Intra- and inter-subject variability of femoral growth plate stresses in typically developing children and children with cerebral palsy. 11, ○
- 40 Comparison of Methods for Predicting Muscle Activations and Knee Joint Contact Forces During Squatting Using OpenSim. **2023**, 533-540 ○
- 39 Inertia-Constrained Reinforcement Learning to Enhance Human Motor Control Modeling. **2023**, 23, 2698 ○
- 38 Smartphone videos of the sit-to-stand test predict osteoarthritis and health outcomes in a nationwide study. **2023**, 6, ○
- 37 EMG-informed neuromuscular model assesses the effects of varied bodyweight support on muscles during overground walking. **2023**, 151, 111532 ○
- 36 Simulations suggest walking with reduced propulsive force would not mitigate the energetic consequences of lower tendon stiffness. ○
- 35 The Effect of a Knee Brace on Muscle Forces during Single-Leg Landings at Two Heights. **2023**, 20, 4652 ○
- 34 Predictive simulation of single-leg landing scenarios for ACL injury risk factors evaluation. **2023**, 18, e0282186 ○
- 33 OpenSim-Based Neck Musculoskeletal Model and Analysis of Isometric Resistance Motion. **2022**, ○
- 32 Validation of a Musculoskeletal Model for Simulating Muscle Mechanics and Energetics During Diverse Human Hopping Tasks. ○
- 31 Accuracy-speed-stability trade-offs in a targeted stepping task are similar in young and older adults. 15, ○
- 30 Gluteal Muscle Forces during Hip-Focused Injury Prevention and Rehabilitation Exercises. **2023**, 55, 650-660 ○
- 29 Derotational femoral osteotomy locations and their influence on joint reaction forces in dysplastic hips. ○
- 28 Measurement error associated with gait cycle selection in treadmill running at various speeds. 11, e14921 ○
- 27 Limiting the Use of Electromyography and Ground Reaction Force Data Changes the Magnitude and Ranking of Modelled Anterior Cruciate Ligament Forces. **2023**, 10, 369 ○
- 26 Joint Coordination and Muscle-Tendon Interaction Differ Depending on The Level of Jumping Performance. 189-195 ○

- 25 The collisional geometry of economical walking predicts human leg and foot segment proportions. **2023**, 20, ○
- 24 EMG-Based Estimation of Lower Limb Joint Angles and Moments Using Long Short-Term Memory Network. **2023**, 23, 3331 ○
- 23 Increased muscle responses to balance perturbations in children with cerebral palsy can be explained by increased sensitivity to center of mass movement. **2023**, ○
- 22 A dynamic foot model for predictive simulations of gait reveals causal relations between foot structure and whole body mechanics. ○
- 21 Non-linearity in motor unit velocity twitch dynamics: Implications for ultrafast ultrasound source separation. ○
- 20 Towards a validated musculoskeletal knee model to estimate tibiofemoral kinematics and ligament strains: comparison of different anterolateral augmentation procedures combined with isolated ACL reconstructions. **2023**, 22, ○
- 19 A comparison of machine learning models accuracy in predicting lower-limb joints kinematics, kinetics, and muscle forces from wearable sensors. **2023**, 13, ○
- 18 Sit-To-Walk Strategy Classification Using Hip and Knee Joint Angles at Gait Initiation. ○
- 17 A review of current state-of-the-art control methods for lower-limb powered prostheses. **2023**, ○
- 16 A reduced-order closed-loop hybrid dynamic model for design and development of lower limb prostheses. **2023**, 4, ○
- 15 Motor control complexity can be dynamically simplified during gait pattern exploration using motor control-based biofeedback. **2023**, 129, 984-998 ○
- 14 Open-source software library for real-time inertial measurement unit data-based inverse kinematics using OpenSim. 11, e15097 ○
- 13 How Connecting the Legs with a Spring Improves Human Running Economy. ○
- 12 Optimal degrees of freedom of the lower extremities for human walking and running. ○
- 11 Sagittal-plane balance perturbations during very slow walking: Strategies for recovering linear and angular momentum. **2023**, 152, 111580 ○
- 10 A wearable real-time kinetic measurement sensor setup for human locomotion. **2023**, 4, ○
- 9 Biomimetic Approaches for Human Arm Motion Generation: Literature Review and Future Directions. **2023**, 23, 3912 ○
- 8 Co-simulation of human digital twins and wearable inertial sensors to analyse gait event estimation. 11, ○

- 7 The Influence of Induced Gait Asymmetry on Joint Reaction Forces. **2023**, 111581
- 6 Funktionelle Diagnostik der patellofemorale Instabilität.
- 5 Joint loading topography during occupational tasks - A musculoskeletal modeling approach to substantiate ergonomic recommendations. **2023**, 95, 103451
- 4 Dynamic human body models in vehicle safety: An overview.
- 3 Simulation of Lower Limb Muscle Activation Using Running Shoes with Different Heel-to-Toe Drops Using Opensim. **2023**, 11, 1243
- 2 Fusion of video and inertial sensing data via dynamic optimization of a biomechanical model. **2023**, 155, 111617
- 1 Effect of pregnancy on female gait characteristics: a pilot study based on portable gait analyzer and induced acceleration analysis. 14,