

Wednesday, August 8		Thursday, August 9					Friday, August 10					Saturday, August 11																				
7:00a-7:30a	Diversity Outreach Introduction <i>Civic Center front lobby/door</i>	Continental Breakfast <i>Ballroom</i>					Continental Breakfast <i>Ballroom</i>					5K Fun Run					7:00a-7:30a															
7:30a-8:00a																	7:30a-8:00a															
8:00a-8:30a		Welcome and Keynote - Karyn Esser <i>Presentation Hall</i>					Keynote - Mayo Spinal Cord Injury Team - <i>Presentation Hall</i>					Continental Breakfast <i>Ballroom</i>			Diversity Breakfast <i>(Ticket Required)</i> Ste 102/103		8:00a-8:30a															
8:30a-9:00a																	8:30a-9:00a															
9:00a-9:30a	Diversity Outreach Event <i>Boys & Girls Club of Rochester</i>	Break (9:15-9:30am)					Break (9-9:30am)					Break (9-9:30am)					9:00a-9:30a															
9:30a-10:00a		SB3C/ASB Symposium Ste 104	Next Gen Sensors & Data Symposium Ste 105	Walking (Rapid Podium) Ste 106	Sex Differences (Thematic) Ste 110/113	Stroke (Thematic) Ste 111/112	ASEE/ASB Teaching Symposium Ste 104	ISG/ASB Symposium Ste 105	JOB & COB Award Comp (Podium) Ste 106	Standing (Thematic) Ste 110/113	Triceps Surae (Thematic) Ste 111/112	Hay Award Symposium Ste 104	Joint Imaging Symposium Ste 105	Joint Replacement (Podium) Ste 106	Arm 1 (Thematic) Ste 110/113	Leg 1 (Thematic) Ste 111/112	9:30a-10:00a															
10:00a-10:30a		Break (11-11:30am)					Break (11-11:30am)					Break (11-11:30am)					10:00a-10:30a															
10:30a-11:00a																	10:30a-11:00a															
11:00a-11:30a		Registration Opens <i>Ballroom lobby west/south</i>	Tutorial-Rigor/Reproducibility Ste 104			Doctoral Comp Track A (Rapid Podium) Ste 104	Doctoral Comp Track B (Rapid Podium) Ste 105	Doctoral Comp Track C (Rapid Podium) Ste 106	NBD Symposium Ste 104	Pediatrics & Pregnancy (Podium) Ste 105	Pitching & Swinging (Podium) Ste 106	Jumping & Landing (Thematic) Ste 110/113	Prosthetics (Thematic) Ste 111/112	ACSM/ASB Symposium Ste 104	Spine & Trunk (Podium) Ste 105	Rehab (Podium) Ste 106	Arm 2 (Thematic) Ste 110/113	Leg 2 (Thematic) Ste 111/112	11:00a-11:30a													
11:30a-12:00p		11:30a-12:00p																														
12:00p-12:30p		Lab Tours <i>Mayo Clinic</i>	Lunch <i>Ballroom</i>			Career Networking Event <i>Ballroom lobby west/south</i>		Lunch <i>Ballroom</i>			Future of ASB Discussion <i>Presentation Hall</i>		Lunch <i>Ballroom</i>			Business Meeting <i>(Open to All)</i> <i>Presentation Hall</i>		12:00p-12:30p														
12:30p-1:00p																		12:30p-1:00p														
1:00p-1:30p		Tutorial Leadership Ste 102/103	Poster Session - Featuring Poster Element of the Doctoral Competitions, refreshments, and lots of great science <i>Ballroom</i>					Borelli Award Keynote - Roger Enoka <i>Presentation Hall</i>					Presentations by winners of the Pre-doc Award, Post-doc Award, Goel Award, and Founders Award <i>Presentation Hall</i>					1:00p-1:30p														
1:30p-2:00p																		1:30p-2:00p														
2:00p-2:30p	Women in Science Event (Ticket Required) <i>Dr. William Mayo Reception Hall</i>																	Poster Session - Featuring Undergrad and Masters Student Poster Competitions, refreshments, and lots of great science <i>Ballroom</i>					Break (3:30-4pm)					2:00p-2:30p				
2:30p-3:00p																												2:30p-3:00p				
3:00p-3:30p	ASB Executive Board Meeting <i>Edith Graham Boardroom</i>	Closing Ceremony & Award Announcements <i>Presentation Hall</i>					Muscle & Tendon Friendship Symposium Ste 104	Bone (Podium) Ste 105	Running (Rapid Podium) Ste 106	ACL (Thematic) Ste 110/113	Sensors (Thematic) Ste 111/112	ASB Executive Board Meeting <i>Edith Graham Boardroom</i>					3:00p-3:30p															
3:30p-4:00p							3:30p-4:00p																									
4:00p-4:30p	Student Welcome Event Ste 102/103	Student Night Out					Banquet <i>Peace Plaza</i>					Safe Travels and see you next year in Calgary for the 2019 ISB/ASB meeting!					4:00p-4:30p															
4:30p-5:00p																	4:30p-5:00p															
5:00p-5:30p	Opening Reception <i>River Front/South & West Lobby</i>	Dinner on your own (Rochester's famous "Thursdays on First & Third" runs all afternoon and evening)															5:00p-5:30p															
5:30p-6:00p																	5:30p-6:00p															
6:00p-6:30p																	6:00p-6:30p															
6:30p-7:00p																	6:30p-7:00p															
7:00p-7:30p	Dinner on your own (Rochester's famous "Thursdays on First & Third" runs all afternoon and evening)															7:00p-7:30p																
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9:30p-10:00p																9:30p-10:00p																

List of platform presentations

Session	Date	Time	Format	Session Chair	Topic	Guest Author	First Author	Page
Walking	Thursday, Aug. 9	09:30-11:00	Rapid Podium	Anita Bagley & Robin Pomeroy	Predicting Measures of Physical Performance from Gait Metrics in Patients with Ankle Osteoarthritis	Queen	Queen	354
					Does local dynamic stability during unimpeded walking predict the response to balance perturbations?	Frank	Zhao	364
					Postural Redundancy in Elderly Gait Does Not Impair Dynamic Stability	Brown	Brown	369
					Young adults are surprisingly bad at walking: Sex differences in the circumstances associated with falls	Cho	Cho	340
					Does Foot Position Affect Muscle Function During Gait in Central Palsy?	Hegarty	Hegarty	333
					Dynamic Effects of Toe and Foot Length on Biomechanical Walking	Wang	Wang	442
					Correlation between Gait Asymmetry and Motor Variability	Hughes-Oliver	Hughes-Oliver	168
					Changes in Force-Distribution Metrics of the Foot with Walking Speed	Hughes-Oliver	Hughes-Oliver	168
					A New Kinematic-Based Gait Event Detection Algorithm During Treadmill Locomotion	Morgan	Morgan	272
					The Effects of Subtalar Axis Orientation on Kinematics and Kinetics During Dynamic Motion	King	King	383
Sex Differences	Thursday, Aug. 9	09:30-11:00	Thematic	Allison Gruber & Leahy Pavey	Consistency in Motor Control of Gait Derived from Experimental and Simulated Activation Patterns	Gruber	Gruber	425
					Auditory and Visual External cues have different effects on spatial but similar effects on temporal gait variability	Yan	Yan	610
					Sex Differences in Human Ankle Stiffness	Lee	Tranipo	662
					Leg Stiffness, Joint Stiffness, and Running Injury Rate: A Prospective Cohort Study	Davis IV	Davis IV	593
					The Influence of Body Mass Index and Sex on Frontal and Sagittal Plane Joint Moments During Walking	Garcia	Garcia	471
					Sex and Mechanism of Injury (MOI) Influence Knee Mechanics After Anterior Cruciate Ligament Reconstruction (ACL)	Hennigan	Hennigan	662
					Sex differences in motor unit behaviour during force development	Ingils	Ingils	557
					Sex differences in muscle recruitment during force development	Ingils	Ingils	557
					The Effects of Fall-Recovery Training on Single- and Multiple-Stepping Thresholds in Individuals With Chronic Stroke	Paganan	Paganan	106
					Characterizing Multitask In Vivo Muscle Architecture Changes Following Stroke	Adkins	Adkins	187
Stride	Thursday, Aug. 9	09:30-11:00	Thematic	Elizabeth Hoard Weichler & Sabrina Lee	Motor Module Generalization Across Walking and Running is Associated with Better Walking Performance Post-stroke	Adkins	Adkins	187
					Merged Plantarflexor Modules Predicts Poor Walking Performance in Post-Stroke Hemiparetic Subjects	Brough	Brough	243
					Foot-to-foot force transitions in the lower limb during walking	Deane	Deane	223
					Methodology to Estimate Voluntary Activation of the Patellar Tendon and Vastus Muscles in Chronic Hemiparetic Stroke Using Twitch Interpolation	Garrimán	Garrimán	478
					Exploring Movement Variability and EEG Correlates During Motor Learning	Shattuck	Shattuck	100
					A Novel Approach for Evaluating Compensatory Gait Strategies Using Mechanical Energetics	Brathim	Brathim	285
					Gait Variability to Predict Motor Learning of a Novel Motor Task	Uman	Uman	153
					Real-time music-based biofeedback to reduce impact loading during over-ground running	Van den Bergh	Van den Bergh	219
					Effects of a Novel Adaptive Active Prosthesis on Gait and Impact Loading	Larson	Larson	323
					Walking Gait Features and Locomotion State with Data Process Auto-Regressive Hidden Markov Model	Doehring	Doehring	428
Doctoral Competition Track A	Thursday, Aug. 9	11:30-13:00	Rapid Podium	Cecile Smeets & Carlineau	Lower Limb Joint Angle Variance as a Function of Obstacle Height During Obstacle Crossing	Cul	Cul	409
					Effects on Performance for Example Obstacles in an Outdoor Course	Wahl	Wahl	443
					INCONSISTENCIES IN STAIRCASE DIMENSIONS IMPACT UPON STAIR CLIMBING SAFETY	Franken	Franken	454
					Prevalence of Foot Pain in the Elderly: A Cross-sectional Study	Franken	Franken	454
					A Four-stage Classifier for the Single-limbed Redundant Robot Derived from a Human Perturbation Experiment	Lee	Lee	570
					The Effect of Scapulothoracic Osseous Rotation on Subacromial Pathways	Lawrence	Lawrence	391
					Effect of Spine Biomechanics, Automated Shape-Matching Algorithms Validation	McLean	McLean	377
					UL3 Joint Load Estimation during Lifting Using a Deep Learning Based Method	Mehrali	Mehrali	339
					ONLINE REACTIVE BALANCING TRAINING AMONG BIPEDALS FOR TREATMENT COMPLICATIONS	Andri	Andri	391
					Estimates of Achilles Tendon Moment Arm with Axis of Rotation Determined from Ankle Motion versus Anatomical Landmarks	Piazza	Piazza	542
Doctoral Competition Track B	Thursday, Aug. 9	11:30-13:00	Rapid Podium	Melissa Goss & Joshua Leonardis	Longitudinal Changes in Cartilage Composition are Associated with Abnormal In Vivo Knee Mechanics Following ACL Reconstruction	Vignos	Vignos	434
					Running Specific Footstrike Mode Affects Top Spinning Speeds in Athletes with Unilateral Transfemoral Amputations	Carroll	Carroll	468
					Changes in Hip Mechanics During Gait Modification to Reduce Knee Adduction Moment	Cortis	Cortis	444
					Gait Asymmetries in Knees Post-ACL: Associate with Knee Lining 12 Months Post-ACL	Wheeler	Wheeler	468
					Patients with Medial Knee OA Vary in the Kinetic Response to Plantar Pressure-Based Feedback	Wimmer	Wimmer	539
					Comparison of Joint Kinetics Using Common Models for Baseball Pitching	McCarthy	McCarthy	548
					Changes in Dynamic Motor Control Following Neurorehabilitation for Traumatic Brain Injury: Treadmill Vs Overground Walking	Chen	Chen	124
					Effect of Load Muscle Fatigue on Low-Frequency Common Inout to Bilateral and Unilateral Plantar Flexors during Quiet Standing	Watanabe	Watanabe	740
					Upper Limb Muscle Activation Interaction Effects Between Young and Older Adults	Chen	Chen	124
					Older Adults Reverse their Distal-to-Proximal Redistribution Using Biofeedback	Brown	Brown	302
Doctoral Competition Track C	Thursday, Aug. 9	11:30-13:00	Rapid Podium	Alma Grabowicz & Ryan Alcantara	Post-Operative Function and Muscle Modules during Gait at 6 and 24 Months Following Total Knee Arthroplasty	Keogh	Keogh	388
					Post-Stroke Walking Mechanics Using a Speed-Adaptive Electromyography-Exoskeleton Controller	McCann	McCann	377
					Pathological Knee Joint Condition in Children with Cerebral Palsy is Associated with the Active Side Muscular Mechanics rather than Passive	Alex	Kayo	379
					Estimating the Natural Ergonomics of the Human Spine: Kinematic Motion Analysis and Electromyography	Gidycz	Gidycz	496
					In vivo Relationship between Joint Stiffness, Joint-based Estimates of Muscle Stiffness, and Shear Wave Velocity	Vigotsky	Vigotsky	496
					Does Fatigue Affect Intrinsic Kinematics during a Repetitive Kick-and-Place Task?	DeBeecker	DeBeecker	546
					COMPUTATIONAL MODEL OF MUSCLE INJURY VALIDATED WITH IN VIVO EXPERIMENTS	Westman	Westman	646
					Finger Muscles Contract with Bolusium Tendon Increased Passive Stiffness and Decreased Passive Range of Joint Motion in Individuals with Chronic Hemiparetic Stroke	Bruder-Markley	Bruder-Markley	646
					How Does Achilles Tendon Training Influence Strain and Energy Storage?	King	King	383
					Hip Extensor Fatigue Alters Hip and Knee Coupling During Step-Downs: A Randomized Controlled Trial	Hollman	Hollman	182
COB & JOB Award Session	Friday, Aug. 10	09:30-11:00	Podium	Robin Queen & Brooke Ode	Learning Locomotor Stability in Novel Environments	Bailey	Bailey	542
					CONTACT PRESSURE EXPOSURE CORRELATES WITH OA DEVELOPMENT IN ACETABULAR FRACTURES	Chibber	Chibber	528
					Knee Adduction Moment is Greater with Time Since Injury in Individuals with Lower Limb Injuries	Krugmunch	Krugmunch	523
					GAIT ANALYSIS OF TREATMENT TYPE AND POST-TREATMENT DURATION INFLUENCE FETTERAL MASS RECRUITMENT	Lilly	Lilly	596
					Groundwater joint stability during dynamic pushing and pulling	McFarland	McFarland	523
					Learn from Activities Improve Learning in Lecture-only Qualitative Biomechanics	Catena	Catena	100
					Controlled Design, Assessment, Feedback, Student Learning, and Interest in Lower-limb Biomechanics	Gross	Gross	257
					Lessons from the Past: Learning Anatomy in the Italian Renaissance	Frankel	Frankel	257
					Introducing Engineering and Biomechanics to Young Students through a Service Learning Partnership	Lee	Lee	384
					Environment-dependent modulation of human ankle stiffness during upright postural balance	Nguyen	Nguyen	284
Standing	Friday, Aug. 10	09:30-11:00	Thematic	Jessica Allen & Amy Hegarty	What are the Effects of Muscle Weakness on the St to Stand Transfer?	Carroll	Carroll	468
					Postural Stepping Control in Older Adults During Medial Perturbations	Zarandi	Zarandi	284
					Effects of Wearing an Upper Limb Prosthesis on Standing Balance	Majid	Majid	188
					From the Neural Control of Balance to the Control of Balance	Monferrer	Monferrer	287
					A PILOT STUDY OF ARGENTINE TANGO TO IMPROVE POSTURAL CONTROL AMONG CANCER SURVIVORS	Worthen-Chaudhuri	Worthen-Chaudhuri	287
					A model for internal elastic energy storage and recovery in deforming muscles	Roberts	Roberts	562
					How insights into the mechanics behavior of the healthy human Achilles tendon revealed by novel digital image correlation	Nguyen	Nguyen	549
					Required Muscle Activation Dependence on Moment Arm and Maximum Shortening Velocity: A Computer Simulation Study	Piazza	Piazza	549
					Archives Tendon Structure Does Not Change in Trained Distance Runners	Huffnagle	Huffnagle	646
					Prediction of Soleus Muscle Fatigue Behavior During Walking Using a Multiscale Coupled Dependent and FEM Model	Jones	Jones	655
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					Joint Load during Gait in Independently Ambulatory Children with Spina Bifida	Musake	Wren	180
					SOLE FOOT STIFFNESS IN CHILDREN WITH CEREBRAL PALSY AFTER SELECTIVE DORSAL RHIZOTOMY	Russell	Russell	537
					Impact of Forces on Pediatric Posterior Walker on Gait in Cerebral Palsy Gait	Russell	Russell	537
					Changes in Young Baseball Pitching Biomechanics: 7-Year Longitudinal Study	Mann	Mann	393
					Lower Extremity Muscle Activity of Healthy Infants: Implications for Hip Dysplasia Patients	Mann	Mann	393
					Alterations in Youth Baseball Pitching Biomechanics: A 7-Year Longitudinal Study	Differender	Differender	287
					Prevalence of Spinal Cord Injury and Lower Limb Length Discrepancy	Worthen-Chaudhuri	Worthen-Chaudhuri	287
					Biomechanical Differences in the Baseball Swing in Various Training Drills	Caran	Caran	673
Jumping & Landing	Friday, Aug. 10	11:30-13:00	Thematic	Bill McNeil Gray & Ota Aoyagi	PLANNING OF THE SWING IN NCAA DIVISION I SOFTBALL PLAYERS	Picklin	Picklin	465
					ANALYSIS OF BASEBALL SWING KINEMATICS AND RELATIONSHIPS TO SWING KINEMATICS FOR NCAA DIVISION I SOFTBALL HITTERS	Lund	Lund	673
					3D Movement Dynamics of Pitching Arm Kinetics in Youth Baseball Players	Klich	Sterner	260
					Comparison of Side and Side-View Power for Staircase Landings	Sterner	Sterner	267
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					Smart Specific Wearable: A Jump Monitor for Figure Skating	Ridge	Ridge	421
					Effects on Performance Arising from Sedentary Growth in Recovered Through Exercise in Adulthood	Hoggar	Hoggar	338
					Effects of Excessive Movement Precondition on Jump Landing	Stephenson	Stephenson	430
					Direct Contributions to Total Lower Limb Energy during a Single-Leg Hop Landing Task after Anterior Cruciate Ligament Reconstruction	Farber	Farber	430
					Increasing Push-Off Energy from a Prosthetic Foot May Not Reduce Energy Loss in the Contralateral Leg During Gait	Dawson	Dawson	175
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					Comparison of Modular and Rigid Socket Systems for Lower Limb Amputees: A Preliminary Study	Proff	Proff	294
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					BIOMECHANICAL EVALUATION OF MINIMALLY INVASIVE STABILIZATION OF PELVIS WITH ACETABULAR LESION	Wang	Wang	280
					Biomechanical Effects of Hip Loading to Poststroke Gait: Retrospective Reoperation	Carlyle	Carlyle	123
					Measurement of Walking Speed with Gait Mechanics Following Total Ankle Arthroplasty	Swann	Swann	108
					Effect of Rapid Load Change and Achilles Rehabilitation After arthroplasty on Joint Contact Pressure	Farber	Farber	229
					How Does Internal External Rotation of the Femoral Component in TKA Change Postoperative Biomechanics During Stair Ascent?	Both	Both	479
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					UPPER LIMB JOINT CONTROL DURING ACTIVITIES OF DAILY LIVING	Wen	Wen	395
					Postural Influences on Regional Supraspinatus and Infraspinatus Activation in Isometric Arm Elevation Efforts	Dickerson	Dickerson	589
					Shoulder Biomechanics and Supraspinatus Tendon Injury Risk during Isometric Bump Propulsion	Dickerson	Dickerson	589
					Anterior/Posterior Supraspinatus Redefining EMG Changes through Shoulder Motions	Cudlip	Cudlip	543
					Comparative Shoulder Impingement during Free-Living Manual Wheelchair Propulsion	Fortune	Fortune	424
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					A Cross-Regional Examination and Analysis of Hip Muscle EMG Coupling during Step-Downs	Hickman	Hickman	154
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					Impact of Exercise-Induced Pain on Tibiofemoral Contact Forces in Knee OA	Reinholdt	Reinholdt	676
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					Development of an Intervention-Focused Metric of Gait Balance	Davis	Davis	444
					Internal Representation of External Patient Dynamics During Locomotor Rehabilitation	Hanson	Hanson	380
					Representation of Human Physical Therapy: State and Control Related Outcomes in Patients with Below-Knee Amputation	Stewart	Stewart	380
					EMG Analysis of an Upper Body Exoskeleton during Automotive Assembly	Gillette	Gillette	236
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					Effect of Trunk Muscle Activity on Spinal Loads in Persons with Chronic Low Back Pain	Bobrowicz	Bobrowicz	373
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					Effect of Lower Back and Hip Morphology on Walking Kinematics	Johnson	Johnson	560
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					INCREASE IN MIDDLE NEURON LONGITUDINAL MOBILITY BY TRANSVERSE WRIST COMPRESSION IN PATIENTS WITH CARPAL TUNNEL SYNDROME	Li	Li	517
					Biomechanical Model Based Control Performance is Consistent Across Strides, Upper Limb Postures	Cough	Cough	120
					Mapping Together Thumb Kinetics and Kinematic Function	Drozd	Drozd	437
					Task-based Biomechanics Effect motor adaptation to muscle assistance	Nguyen	Nguyen	445
					Decomposed Electromyography Predicts Clinical Assessment of Finger I Motor Weakness	Schultz	Schultz	147
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					A Transfer Based Supervised Learning Framework for Morphology of Printer Soft Tissue	Brady	Brady	617
					Force, Displacement, and Work Profiles of Structures Distal to the Heel	Hedrick	Hedrick	152
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					Biomechanical Characterization of Walking with Muscle Learning in a Feasibility Study	Michalski	Michalski	224
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					STATISTICAL SHAPE MODELING TO ESTIMATE COORDINATE SYSTEMS FOR CARTILAGE MODELS	Abban Shandiz	Abban Shandiz	538
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					Running Biomechanics in the Male Recreational Marathon Runner	Hogganbar	Hogganbar	597
					Accumulated Running Loads are Similar Across Training Programs	Hunter	Hunter	597
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Sensors	Saturday, Aug. 11	16:00-17:30	Thematic	Mary Rodas & Maria Pappas	Initial contact and toe off event identification for treadmill running at different speeds	King	King	108
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					Minimum Number of Strides to Determine Stable Symmetry during Running	Murphy	Murphy	385
					An Evaluation of Gait Activity in Young and Old Adults in Relation to Running Economy	McIntosh	McIntosh	587
					How Work During Running Affects Daily-Use and Running Specific? Prospective	Sepp	Sepp	487
					SENSOR FEEDBACK CONTROLS GROUND CONTACT VARIABILITY IN RUNNING	Thompson	Thompson	280
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					Activity Recognition for a Military-Scale Outdoor Course Using Body-Worn IMUs	Goodwin	Goodwin	256
					Wearable Technology to Monitor Hand Movement During Cognitive-Induced Movement Therapy	Miller	Miller	256
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					EFFECTS OF KNEE KINEMATICS ON ACL STRAIN DURING QUADRATIC KNEE	Trubrod	Trubrod	302
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					Increased Anterior Tibial Acceleration Measured during ACL Injury Trials	Narasimha	Narasimha	128
					Mechanical Properties of Pediatric ACLs and Tendons Used for Reconstruction	Hart	Hart	249
					ACL Loading during Unilateral Landing is Correlated to Dorsiflexion Range of Motion	Weinhandl	Weinhandl	609

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223	Hip And Knee Movement Patterns Predict Kinetic Risk Factors Associated With Running Related Injuries	Aljohani	Aljohani	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 001
21	Determination Of Biomechanical Influences Of Increased Femoral Anteversion (Twisted Leg) On Running For Developing Individual.	Apti	Apti	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 002
40	Effect Of Obesity On Trunk Muscle Activity During One-Handed Carrying	Badawy	Badawy	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 003
326	Step Width Changes With Increased Bimanual Load Regardless Of Sex	Baudendistel	Baudendistel	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 004
305	Muscle-Tendon Unit Parameters Affect Simulation Results During Walking	Baxter	Baxter	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 005
131	Females Are More Mechanically Efficient Than Males	Bennett	Bennett	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 006
672	Knee Loads During Running At Commonly Prescribed Running Paces: A Case Study	Brindle	Brindle	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 007
375	Sex Comparison Of Post-Arthroscopy Gait Mechanics For Femoroacetabular Impingement Syndrome	Brown	Brown	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 008
606	Sex Differences Persist Across Gait Speeds	Bruening	Bruening	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 009
122	Transitional Movements With Body Borne Load Increases Ankle Work	Cameron	Cameron	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 010
67	Old And Young Adults Demonstrate Similar Muscle Co-Constrictions During Walking	Pal	Chandran	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 011
97	Older Adults Overcome Their Deficits To Young Adults When Propulsive Demands Of Walking Are Increased To Their Maximum	Conway	Conway	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 012
190	Modulation Of Non-Linear Stiffness In The Foot-Shoe Complex During Running	Day	Day	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 013
196	Validity Of Pressure-Measuring Insoles In Quantifying Center Of Pressure	DeBerardinis	DeBerardinis	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 014
318	Elliptical Estimation Of Plantar Contact Areas During Walking	DeBerardinis	DeBerardinis	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 015
211	Energy Return In Prosthetic Feet For High Activity Users During Weighted And Unweighted Walking	Dellamano	Dellamano	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 016
670	Energetics And Stability Of Running On Rough Terrains	Dhawale	Dhawale	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 017
525	Kinetic Analysis Of Rodent Gait After Volumetric Muscle Loss Injury And Treatment	Russell	Dienes	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 018
507	Footstrike Pattern Effects On Sagittal Knee Mechanics In Runners With Transtibial Amputation: Initial Observations	Djafar	Djafar	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 019
600	Altered Knee Loading Patterns Observed In Contralateral Limb During Medial Knee Thrust	Cortes	Eddo	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 020
634	Gait Initiation: Understanding Biomechanics Of Non-Steady Modulations	Ehtemam	Ehtemam	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 021
49	Sex And Limb Impact Lower Limb Biomechanics During Loaded Single Leg Cuts	Fain	Fain	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 022
621	Destabilization After Expected And Unexpected Discrete Perturbations During Overground Gait	Fino	Fino	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 023
484	An Initial Look At Gait Stability During Over-Ground Walking In Cancer Patients	Fischer	Fischer	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 024
565	Misadventures Of A Biomechanist: A Closer Look At Kinematics And Ultrasound Of A Hamstring Injury	Infantolino	Fox	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 025
571	Running Training Alters Limb Stiffness And Lowers The Cost Of Locomotion	Polk	Fox	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 026
486	"Swing Phase Kinematics And Prospective Running Injury Development"	Gruber	Frankston	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 027
412	Knee Dynamics And Running Cadence: A Controlled Case Study	Fritz	Fritz	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 028
83	A Pipeline For Analyzing Motion Capture Data Using Opensim	Frisch	Galloy	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 029
141	Running Kinematics At Self-Selected And Prescribed Speeds In Adolescent Runners	Garcia	Garcia	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 030
664	Marathon Training And Rpe: Can Self Evaluation Lead To More Healthy Runners At The Starting Line?	Gedlinske	Gedlinske	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 031
240	The Effects Of A Carbon Fiber Shoe Insole On Running Mechanics	Gregory	Gregory	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 032
494	Running Gait Complexity Increases Before Injury In Collegiate Runners	Gruber	Gruber	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 033
176	Coordination And Variability Differ By Years Of Running Experience	Hafer	Hafer	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 034
502	Examining The Minute To Minute Predictability Of Walking Distance And Local Joint Stability Across Multiple Surfaces	Hamer	Hamer	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 035
65	Chaotic Behavior Of Peak Ground Reaction Forces During Gait Delayed Time To Fixation Of An Intra-Articular Fracture Does Not Cause Additional Limb Dysfunction In A Large Animal Model Of Post-Traumatic Osteoarthritis	Hauselle	Hauselle	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 036
347	Quantifying Changes In Gait Following Intra-Articular Fracture In A Large Animal Model Of Post-Traumatic Osteoarthritis	Heck	Heck	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 037
461	Quantifying Changes In Gait Following Intra-Articular Fracture In A Large Animal Model Of Post-Traumatic Osteoarthritis	Heck	Heck	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 038
552	Hip And Knee Forces For Transtibial Amputees In Gait And Cycling	Heyde	Heyde	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 039

473	Effect Of Foot Position On Knee Mechanics In Obese Young Adults	Holmes	Holmes	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 040
561	Running Economy And Marathon Racing Shoes	Hunter	Hunter	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 041
433	Gait Biomechanics Early After Aclr Do Not Predict Medial Compartment Joint Space Width 5 Years After Aclr	Johnson	Johnson	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 042
674	"Comparison Of Gait Kinematics And Spatiotemporal Measures Between Lock And Pin And A New Vacuum Suspension System In Transtibial Amputees	kellems	kellems	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 043
402	Dynamic Structure Of Variability Of Joint Angles In User-Driven Treadmill Walking	Kempski	Kempski	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 044
252	Do People With A Transtibial Amputation Have A Rougher Ride On Uneven Terrain?	Kent	Kent	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 045
495	Walking With Added Mass Influences Ankle And Mid-Tarsal Joint Quasi-Stiffness	Kern	Kern	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 046
481	Effect Of Pediatric Obesity On Patellofemoral Joint Contact Force During Walking	Lerner	Kim	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 047
158	Motor Learning Response To Split-Belt Treadmill Walking After Non-Traumatic Amputation	Kline	Kline	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 048
439	Propulsion Force Symmetry During Walking In Patients With Peripheral Artery Disease	Leutzinger	Leutzinger	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 049
632	Scaling Force In The Flexor Digitorum Longus Tendon Using A Passive Implanted Mechanism: A Parameter Sensitivity Analysis	Ling	Ling	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 050
545	Females And Males Use Different Hip Mechanics In Response To Military-Relevant Loads	Loverro	Loverro	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 051
217	Eng-Driven Opensim Analysis Of Knee Forces In Normal Weight, Overweight And Obese Subjects During Gait, Cycling And Elliptical Exercises	Klisch	Marino	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 052
630	Acute Effects Of Distance Running On Healthy Femoral Condyle Cartilage Thickness And Volume: A Pilot Study	Mason	Mason	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 053
563	A Comparison Of Running Mechanics In Marathon Racing Shoes	McCleod	McCleod	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 054
179	Frictional Response Of Multiple Slip-Resistant Flat And Beveled Shoes To Normal Loading	Moghaddam	Moghaddam	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 055
72	Estimation Of Dynamic Stability Of Fallers And Non-Fallers Utilizing Long-Term (3-Days) Wearable Sensor Data	Moon	Moon	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 056
460	Teaching Older Adults How To Fall Safely	Moon	Moon	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 057
360	Relationship Between Arch Structure, Mobility And Lower Extremity Injury In Runners	Morgan	Morgan	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 058
661	Discrepancies In Kinematics And Dynamics Of Mild And Severe Slipping	Beschorner	Nazifi	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 059
258	The Influence Of Spinal Cord Injury On Long-Term Gait Variability	Rouhani	Noamani	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 060
501	Examining The Effects Of Leg Stiffness On Vertical Ground Reaction Forces Using A Dual Spring Loaded Inverted Pendulum Model	O'Brien	O'Brien	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 061
76	Pre-Operative Hamstring Length And Velocity Do Not Explain The Reduced Effectiveness Of Repeat Hamstring Lengthening To Correct Crouch Gait In Children With Cerebral Palsy	Mueske	Osborne	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 062
414	Knee Adduction And Femoral Cartilage Characteristics In Obese And Normal Weight Adults	Pamukoff	Pamukoff	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 063
269	Modulation Of Foot Mechanical Work During Walking With Added Mass	Papachatzis	Papachatzis	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 064
384	The Influence Of Arch Type And Walking Speed On Peak Plantar Pressures	Paquette	Paquette	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 065
246	Alterations In Lower-Extremity Frontal Plane Joint Moment Due To Experimental Knee Pain And/Or Effusion During Walking	Park	Park	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 066
401	The Relationship Between The Foot'S Mechanical Energy And Heat	Patterson	Patterson	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 067
679	Rate Of Force Development Of The Knee Extensor Moment During Loading Phase Of Gait Is Not Associated With Physical Function	Pimentel	Pimentel	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 068
576	Average And Maximal Loading Rates During Hill Running Are Greater On A Soft, Grass Surface Compared To A Hard, Gravel Surface	Porter	Porter	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 069
483	The Influence Of Body Size, Sex, And Gait Speed On Plantar Flexor Moment And Propulsive Force	Post	Post	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 070
442	Medial And Lateral Knee Joint Contact Forces While Walking At Different Speeds	Cortes	Prebble	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 071
658	Comparison Of Socket Suspension Systems During Stair Ascent In Individuals With Transtibial Amputation	Rentuma	Rentuma	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 072
524	The Influence Of Localized Knee Fatigue On Lower Limb Dynamics During Walking	Robey	Robey	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 073
555	Haptic Feedback During Stair Descent	Rokhmanova	Rokhmanova	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 074
366	Walking With Visual Cueing Affects Cortical Hemodynamics	Rowen	Rowen	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 075
598	Comparison Of Three-Dimensional Ankle And Foot Kinematics Between Leardini And Oxford Multi-Segment Foot Models In Active, Healthy Elders	Alderink	Schoen	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 076
534	Determination To Objective Techniques During Running	Schorstein	Schorstein	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 077
39	Sex Impacts Frontal Plane Grf And Knee Biomechanics During Drop Landing With Body Borne Load	Seymore	Seymore	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 078

167	Sagittal Pelvic Motion Of Patients With Unilateral, Transtibial Amputations Compared To Healthy Military Controls While Running Overground	Sharp	Sharp	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 079
567	Do Athletes Maximize Ground Reaction Forces And Power When Accelerating?	Sheets	Sheets	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 080
177	Effect Of Age And Body Mass Index On Mobility In Middle-Aged To Older Adults With And Without Lower Limb Amputation	Shih	Shih	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 081
363	Effect Of Different Step Widths During Gait Reveal Altered Trunk Kinematic Coordination During Low Back Pain Remission	Shih	Shih	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 082
614	The Influence Of Acl Retention In Total Knee Replacement On Walking And Stair Climbing Mechanics	Simon	Simon	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 083
112	Knee Angle And Axes Crosstalk Corrections In Gait, Bicycling And Elliptical Exercises Using Principal Component Analysis	Skaro	Skaro	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 084
627	Can Changing Running Shoes Immediately Reduce The Risk Of Tibial Stress Fractures?	Rylander	Tavares	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 085
436	Applied Gait Pattern Influences Spatial Changes In Contact Stress Calculated For Dysplasia Patients Following Periacetabular Osteotomy	Thomas	Thomas	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 086
588	The Impact Of Mechanical Load Carriage On Gait Mechanics In An Agrarian Sample	Trentadue	Trentadue	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 087
583	Long-Range Correlation In Human Joint-Angle Variability During Walking	Martin	Tsang	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 088
530	Knee Angles With Soft Tissue Artifact Correction For Normal Weight, Overweight And Obese Subjects In Gait And Cycling	Tucker	Tucker	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 089
568	The Benefit Of Different Marathon Shoes Through Various Running Mechanics	Valentine	Valentine	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 090
52	Sex Differences In Gluteal Muscle Forces During Running	Vannatta	Vannatta	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 091
317	The Effect Of Grade On Joint Mechanics During Downhill Running In Female Distance Runners	Wells	Wells	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 092
48	Gait Modification When Decreasing Double Support Percentage Comparison Of Patient-Reported Outcomes And Performance-Based Outcome Measures Over The Return To Run Program For Lower Extremity Injuries	Williams	Williams	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 093
450	Knee Joint Loading During Gait In Independently Ambulatory Children With Spina Bifida	Wingate	Wingate	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 094
180	Comparing Two Measures Of Knee Valgus Angle	Mueske	Wren	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 095
388	The Contribution Of Frontal Hip Power To Slope Walking	Zabala	Wright	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 096
261	Wide Step Width Alters Knee Loading During Stair Descent In Obese Participants	Yang	Yang	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 097
88	Independent Metabolic Contributions Of Support Body Weight And Accelerating Body Mass During Walking On Uphill/Downhill Slopes	Yocum	Yocum	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 098
163	Effect Of Environment On Gait And Gaze During Walking In Older Adult Fallers	Zai	Zai	Walking/Running	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 099
282	Regular Running In Midlife May Be Protective Of Plantarflexor Function After A Prolonged Walk	Zukowski	Zukowski	Walking/Running	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 100
490	Lower Limb Joint Angle Variance As A Function Of Obstacle Height During Obstacle Crossing	Casto	Casto	Competition - Doctoral A	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 101
409	Estimating Gait Events And Locomotion State With A Beta Process Auto Regressive Hidden Markov Model	Cui	Cui	Competition - Doctoral A	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 102
408	A Novel Approach For Evaluating Compensatory Gait Strategies Using Mechanical Energetics	Donahue	Donahue	Competition - Doctoral A	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 103
185	Inconsistencies In Staircase Dimensions Impact Upon Stair Climbing Safety	Ebrahimi	Ebrahimi	Competition - Doctoral A	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 104
454	A Full-State Controller For The Simple Inverted Pendulum Biped Derived From Human Perturbation Experiments	Francksen	Francksen	Competition - Doctoral A	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 105
570	Effects Of A New Adaptive Ankle Prosthesis On Level And Sloped Walking	Joshi	Joshi	Competition - Doctoral A	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 106
334	Reliability And Feasibility Of An Inertial Measurement Unit Based Dual-Task Gait Balance Assessment	Lamers	Lamers	Competition - Doctoral A	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 107
1	Exploring Movement Variability And Eeg Correlates During Motor Learning	Chou	Pitt	Competition - Doctoral A	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 108
100	Gait Variability To Predict Motor Learning Of A Novel Motor Task	Shattuck	Shattuck	Competition - Doctoral A	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 109
193	Real-Time Music-Based Biofeedback To Reduce Impact Loading During Over-Ground Running	Ulman	Ulman	Competition - Doctoral A	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 110
239	Load Effects On Performance For Example Obstacles In An Outdoor Course	Van den Bergh	Van den Bergh	Competition - Doctoral A	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 111
440	Changes In Dynamic Motor Control Following Neurorehabilitation For Traumatic Brain Injury: Treadmill Vs Overground Walking	Vitali	Vitali	Competition - Doctoral A	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 112
620	On-Site Reactive Balance Training Among Residents Of Retirement Communities	Acuna	Acuna	Competition - Doctoral B	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 113
356	Patients With Medial Knee Oa Vary In The Kinetic Response To Plantar Pressure-Based Feedback	Aviles	Aviles	Competition - Doctoral B	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 114
539	Cervical Spine Biplanar Fluoroscopy: Automated Shape-Matching Algorithm Validation	Wimmer	He	Competition - Doctoral B	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 115
325	The Effect Of Scapulothoracic Upward Rotation On Subacromial Proximities	Ellingson	Kage	Competition - Doctoral B	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 116
191		Lawrence	Lawrence	Competition - Doctoral B	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 117

444	Changes In Hip Mechanics During Gait Modification To Reduce Knee Adduction Moment	Cortes	Lindsey	Competition - Doctoral B	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 118
549	Comparison Of Joint Kinetics Using Common Models For Baseball Pitching	McNally	McNally	Competition - Doctoral B	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 119
339	L5/S1 Joint Load Estimation During Lifting Using A Deep Learning Based Method	Mehrzi	Mehrzi	Competition - Doctoral B	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 120
532	Gait Asymmetries 6 Months Post-AcIr Associate With Inter-Limb TIRho Ratios 12-Months Post-AcIr	Pfeiffer	Pfeiffer	Competition - Doctoral B	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 121
438	Running-Specific Prosthetic Model Affects Top Sprinting Speed In Athletes With Unilateral Transtibial Amputations	Southern	Southern	Competition - Doctoral B	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 122
432	Longitudinal Changes In Cartilage Composition Are Associated With Abnormal In Vivo Knee Mechanics Following Acl Reconstruction	Vignos	Vignos	Competition - Doctoral B	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 123
394	Estimates Of Achilles Tendon Moment Arm With Axis Of Rotation Determined From Ankle Motion Versus Anatomical Landmarks	Piazza	Wade	Competition - Doctoral B	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 124
646	Finger Muscles Injected With Botulinum Toxin Demonstrate Increased Passive Stiffness And Decreased Passive Range Of Joint Motion In Individuals With Chronic Hemiparetic Stroke	Binder-Markey	Binder-Markey	Competition - Doctoral C	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 125
302	Older Adults Reverse Their Distal-To-Proximal Redistribution Using Biofeedback	Browne	Browne	Competition - Doctoral C	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 126
129	Triceps Surae Muscle-Subtendon Interaction Differs Between Young And Older Adults	Clark	Clark	Competition - Doctoral C	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 127
546	Does Fatigue Affect Wrist Kinematics During A Repetitive Pick-And-Place Task?	DeDecker	DeDecker	Competition - Doctoral C	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 128
379	Pathological Knee Joint Condition In Children With Cerebral Palsy Is Associated With The Active State Muscular Mechanics Rather Than Passive	Ates	Kaya	Competition - Doctoral C	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 129
675	How Does Achilles Tendon Twisting Influence Strain And Energy Storage?	Knaus	Knaus	Competition - Doctoral C	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 130
368	Post-Operative Function And Muscle Modules During Gait At 6 And 24 Months Following Total Knee Arthroplasty	Koehn	Koehn	Competition - Doctoral C	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 131
377	Post-Stroke Walking Mechanics Using A Speed-Adaptive Myoelectric Exoskeleton Controller	McCain	McCain	Competition - Doctoral C	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 132
466	Evaluating The Postural Ergonomics Of Ophthalmologists Using Kinematic Motion Analysis And Electromyography	Siddicky	Siddicky	Competition - Doctoral C	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 133
496	In Vivo Relationship Between Joint Stiffness, Joint-Based Estimates Of Muscle Stiffness, And Shear Wave Velocity Effect Of Local Muscle Fatigue On Low-Frequency Common Input To Bilateral And Unilateral Plantar Flexors During Quiet Standing	Vigotsky	Vigotsky	Competition - Doctoral C	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 134
74	Computational Model Of Muscle Injury Validated With In Situ Experiments	Watanabe	Watanabe	Competition - Doctoral C	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 135
636	Energetics And Leg Stiffness Of Hopping With Different Exoskeleton Spring Stiffness Profiles In Parallel To The Legs	Westman	Westman	Competition - Doctoral C	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 136
243	Comparison Of Machine Learning Algorithms For Activity Classification Using Emg	Allen	Allen	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 137
550	Vertical Ground Reaction Forces And Loading Rates When Running With Running-Specific And Daily Use Prostheses	Anderson	Anderson	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 138
652	Wearing An Ankle-Foot Orthosis Immediately Improves Walking Performance In Patients With Peripheral Artery Disease	Baum	Baum	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 139
468	A Comparative Evaluation Of Different Wearable Devices On Lower Extremity Kinematics In Upright Kneeling While On A Roof	Beier	Beier	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 140
99	How Does Touch Influence Postural Stability Of Single Leg Stance?	Brelhoff	Brelhoff	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 141
7	Comparison Of Constant Weight Compensation And Inertia Compensation For Knee And Ankle Joints In Wheel-Type Weight-Bearing Gait	Soangra	Cabrales	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 142
693	Mechanical Work Adaptations Using A Transtibial Prosthesis During The First Three Months Of Unassisted Ambulation	Choi	Choi	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 143
638	Positional And Postural Effect Of A Visual Biofeedback Device During Rollator Walker Use: A Device Validation	Collins	Collins	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 144
422	Mechanically Passive Portable Shoulder Exoskeleton: Preliminary Design And Biomechanical Analysis	Bigelow	Golembiewski	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 145
457	Improving Quantitative Predictions Of A Human-Prosthesis Simulation	Hall	Hall	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 146
407	Effect Of Night Vision Goggle Technologies On Task Performance During A Room Clearance Task	Handford	Handford	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 147
541	Effect Of Toe Stiffness On The Push-Off And Joint Trajectories For The Powered Transfemoral Prosthesis: A Pilot Study	Higginson	Higginson	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 148
669	Effect Of A Foot Pad On The Push-Off And Joint Trajectories For The Powered Transfemoral Prosthesis: A Pilot Study	Hong	Hong	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 149
696	Energy Expenditure During Geared Manual Wheelchair Propulsion In Individuals With Spinal Cord Injury	Hur	Hong	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 150
267	Powered Knee-Ankle Prosthesis And Dual-Task Walking In Unilateral Transfemoral Amputees	Jahanian	Jahanian	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 151
607	Effects Of Isokinetic Bi-Axial Ankle Movement Training On Ankle Muscle Coactivation Pattern During Bilateral Standing In The Elderly With Post-Stroke Hemiparesis	Jayaraman	Jayaraman	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 152
650	Simulated Development Of An Assistive Device To Aid Older Adults In Ascending Stairs	Kim	Kim	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 153
245	Developing An Exoskeletal Device To Increase The Efficiency Of Moderate Running	Lee	Lee	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 154
43	The Influence Of Return To Run Program On Foot Strike And Loading Rate While Running Using A Passive-Dynamic Ankle-Foot Orthosis	Goehler	Luanpaisanon	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 155
498		Maun	Maun	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 156

611	Design Of A Fragile Object For Evaluating Grip Performance With Powered Prostheses	Zhao	McCough	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 157
472	Reliability Testing Of The Smapp Device For Characterizing Ankle Foot Orthosis Stiffness	Menon	Menon	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 158
594	Characterization Of Eccentric Motor Deficiencies In Individuals With Incomplete Spinal Cord Injury	O'Brien	O'Brien	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 159
159	Predicting Interaction Forces Between Upper Extremities And Support Devices	Odle	Odle	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 160
580	Differences In Mechanical Demand Imposed On The Shoulder During Manual Wheelchair Propulsion In The Community	Papp	Papp	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 161
30	Optimizing A Variable Stiffness Transverse Plane Adapter For Lower Limb Amputees	Pew	Pew	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 162
504	Development Of A Semg-Based Silent Speech Recognition System	Roy	Roy	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 163
537	Impact Of Forces On Pediatric Posterior Walker On Work In Cerebral Palsy Gait Simulating Ankle Torque During Walking Using A New Bioinspired Muscle Model With Application For Controlling A Powered Exoskeleton	Russell	Russell	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 164
656	Dependence Of Agency And Performance On Visualized Precision Pinch Force	Lerner	Sadegh Pour Aji Bishe	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 165
155	Discrete Visual Feedback On Short-Term Retention Of Learned Movements	Nataraj	Sanford	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 166
210	Effect Of Foot Plate Length On Healthy Gait	Schmithenner	Schmithenner	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 167
603	A Haptic Biofeedback Cane To Reduce Degenerative Loading In The Arthritic Knee	Schuster	Schuster	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 168
566	Granular Jamming Foot Orthosis For Emulating A Range Of Biomechanical Properties	Chang	Simonds	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 169
322	Subthreshold Vibration Does Not Affect Walking Performance Of Transtibial Amputees	Sloan	Sloan	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 170
148	Development Of An Upperlimb Musculoskeletal Wheelchair Propulsion Model	Strong	Strong	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 171
491	Advanced Prosthetic Control From A Noninvasive Neural Interface (Mu Drive)	Kline	Twardowski	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 172
619	Modifications In Wheelchair Propulsion Mechanics After Wheelchair Reconfiguration	Wiens	Wiens	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 173
642	Technical, Clinical And Functional Considerations For The Development Of 3D Printed Upper-Limb Prostheses	Young	Young	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 174
331	Validation Of An Instrumented Knee Brace For Tracking Knee Flexion/Extension Angles During Activities Of Daily Living	Young	Young	Prosthetics and Assistive Devices	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 175
610	Automated Gait Segmentation For A Novel Gait Tracking Knee Brace	Young	Young	Prosthetics and Assistive Devices	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 176
649	Effect Of Surfaces With Different Stiffness On Body Kinematics While Rolling	Hakansson	Agrawal	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 177
288	Differences In Mechanical Energy Of Human Rolling On Different Surfaces	Hakansson	Agrawal	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 178
290	Development Of A Pelvic Model For Study Of Surgical Errors In The Midurethral Sling Procedure	Arif	Arif	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 179
540	Influence Of Forward Trunk Flexion During Stair Ascent On The Average Rate Of Pj Stress Development	Atkins	Atkins	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 180
164	Trunk Kinematics During Simulated Roof Shingle Installation	Carey	Carey	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 181
410	Relationship Between Medial Longitudinal Arch Angle And First Ray Motion During Walking	Becker	Casillas	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 182
403	Using Inertial Measurement Units To Measure Long-Term Recovery After Total Knee Arthroplasty	Chapman	Chapman	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 183
695	Assessing Recovery In Total & Reverse Shoulder Arthroplasty Via Inertial Measurement Units	Chapman	Chapman	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 184
697	Individuals With Multiple Sclerosis Exhibit More Regular Center Of Mass Accelerations After Physical Therapy.	Kurz	Davies	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 185
96	Inertial Loading Of The Pediatric Head Exceeds Neck Injury Tolerance Prior To Head Injury Tolerance	Button	Davison	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 186
418	Simple Gait Parameters And Function In Tka	Delventhal	Delventhal	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 187
259	Effects Semitendinosus Tendon Stiffness On Isokinetic Force And Torque: Implications For Acl Repair	Domire	Domire	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 188
683	Anticipatory Neck Muscle Activity In Automatic And Manual Emergency Braking	Douglas	Douglas	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 189
383	Capsulotomy And Repairs On Torsional Stability Of The Hip	Wang	Douros	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 190
24	An Upper-Extremity Function Dual-Task To Identify Cognitive Status Of Older Adults	Ehsani	Ehsani	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 191
398	Muscle And Joint Contact Forces While Rowing On An Adapted Ergometer	Fang	Fang	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 192
173	How Does Ergometer Setup And Rowing Speed Affect Biomechanics During Rowing On An Adapted Ergometer Designed For People With Spinal Cord Injury	Fang	Fang	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 193
242	The Effect Of Transitioning From A Rearfoot Strike To A Non-Rearfoot Strike On Running Impulses Per Step	Freisinger	Freisinger	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 194
81	Effects Of Prosthetic Socket Suspension On Knee Proprioception And Dynamic Balance In Transtibial Amputees	Gao	Gao	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 195
413								

178	Development Of A Charged Opf Hydrogel-Scaffold System For The Treatment Of Vertebral Failure In Metastatic Spines	Giambini	Giambini	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 197
19	Establishing Norms For Weight-Bearing Hip Rotation Range Of Motion	Gulgin	Gulgin	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 198
146	How Femoral Version Changes Joint Loading In Patients With Developmental Dysplasia Of The Hip	Harris	Harris	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 199
698	Determining Cervical Disc Injury Potential In Motor Vehicle Collisions	Hashish	Hashish	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 200
316	Single Leg Land Provides Unique Insight Into Landing Mechanics In Female Athletes Post-Acl/R	Hatcher	Hatcher	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 201
266	Mechanical Characterization And Biomechanical Computational Modeling Of Short Bowel Syndrome	Hosseini	Hosseini	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 202
605	An Investigation Of Buckling Complications In Spinal Anesthesia Administration Procedures	Hulburt	Hulburt	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 203
378	Sample Sizes Of Statistical Model For The Elderly	Hwang	Hwang	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 204
54	Radioulnar Wrist Compression For Carpal Tunnel Syndrome Treatment: A Preliminary Clinical Study	Li	Jenkins	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 205
301	Biomechanics Response To Acute Patellofemoral Pain In Running	Jewell	Jewell	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 206
335	Gait Performance In Bipolar Disorder: A 6-Month Pilot Longitudinal Study	Kang	Kang	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 207
686	Wearable Sensors For Assessment Of Varus Thrust In Knee Osteoarthritis: A Proof Of Concept	Kumar	Kumar	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 208
98	Relating Functional Task Performance To Rotator Cuff Pain In A Breast Cancer Survivor Population	Lang	Lang	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 209
230	Development And Assessment Of A Low-Cost Clinical Gait Analysis System	Littrell	Littrell	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 210
508	3D Models Of Neck Strength In Three Cardinal Planes Of Motion	Frey Law	Looft	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 211
184	Characterization Of Dynamic Ankle Stiffness In Individuals With Spasticity	Kaufman	Loushin	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 212
160	Muscle Comparisons And Reliability Of A Novel Method To Assess Rate Of Force Relaxation	Uygun	Mathern	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 213
295	Trunk Compensatory Strategies Persist Twelve Months Following Total Knee Arthroplasty	McClelland	McClelland	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 214
312	Resultant Lower Limb Acceleration And Ground Reaction Forces Are Correlated In The Time And Frequency Domains	McGeehan	McGeehan	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 215
18	Passive Hamstring Muscle Stiffness Assessed In High School Athletes Using Shear Wave Elastography	McPherson	McPherson	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 216
207	Orbital Stability During Dual-Task Treadmill Walking In Cancer Patients	Monfort	Monfort	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 217
278	Passive And Active Knee Joint Stiffness During High-Velocity Threshold To Detect Passive Motion Test In Ad-Reconstructed Subjects	Nagai	Nagai	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 218
684	Prophylactic Ankle Bracing Alters Lower Extremity Kinematics During Landing	Nelson	Nelson	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 219
56	In Vitro Reduction Of Wrist Pressure During Antebrachial Tissue Manipulation	Li	Norman	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 220
519	Differences In Resultant Joint Forces And Moments At L4/L5 Between Participants With And Without Back Pain	Nunez	Nunez	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 221
213	Comparison Of Ground Reaction Forces And Knee Joint Moments Between Parkinson, AOs Disease And Healthy Older Adults Using A Kinect-Driven Musculoskeletal Gait Analysis Model	Oh	Oh	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 222
529	Phase Offset Error Attenuation In Pattern Based Feedback For Gait Retraining	Oliveira	Oliveira	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 223
119	Post-Trial Feedback Using A Portable Clinical System May Alter Landing Performance	Rutherford	Onsager	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 224
224	Internal Knee Joint Abduction Moments Of Acl Reconstruction Patients During Gait And Cycling Using Opensim	Pottinger	Pottinger	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 225
475	Shear Lag In A Partially Failed In Fiberwire Surgical Suture	Qwam Alden	Qwam Alden	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 226
13	Evidence Behind Alternative Computer Mouse Designs: A Systematic Review Of Controlled Trials	Radwan	Radwan	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 227
558	Prediction Of Female Injury In Automotive Crash Environments	Roberts	Roberts	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 228
84	Work Envelope In Native And Non-Native Signers	Roman	Roman	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 229
429	Intervertebral Disc Herniation Risk During Low-Speed Lateral Collisions	Rossmann	Rossmann	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 230
511	Biomechanical Indicators Of Movement Disorders In Parkinson, AOs Disease	Roy	Roy	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 231
602	Spatial Differences In Nerve Mechanical Properties Using Shear Wave Elastography	Rugel	Rugel	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 232
671	The Effect Of Excising A Supra-Scapula Spine Lipoma On Scapular Kinematics	Rundquist	Rundquist	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 233
449	Development Of Low Cost 3D Printed Anatomical Models For Pre-Surgical Planning	Salazar	Salazar	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 234
109	Finger Extensor Muscle Stiffness Predicts Clinical Assessment Of Extensor Weakness	Schilaty	Schilaty	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 235

47	Feedback On Patellofemoral Joint Load Influences Squat Performance	Kernozek	Schiller	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 236
406	The Effect Of Distraction On Dermal Patch Reconstruction Of The Hip Capsule	Miller	Schimoler	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 237
420	Chronological Comparison Of Walking Ground Reaction Force In Individuals With Acr	Seeley	Seeley	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 238
446	In Vitro Simulation Of Torque-Induced Rotator Cuff Tears	Kersh	Shanley	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 239
319	Development Of Force-Space Navigation For Surgical Robotics	Smith	Smith	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 240
427	Simulation Of Occupant Kinematics In Low-Speed Lateral Collisions Using Articulated Total Body	Sproule	Sproule	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 241
291	Comparison Of Dynamic Joint Kinematics During Shoulder Elevation In Healthy Controls And Individuals Diagnosed With Multidirectional Instability	Staker	Staker	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 242
268	Overground Walking Knee Biomechanics Of Dissatisfied Total Knee Replacement Patients	Valenzuela	Valenzuela	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 243
202	Estimating Walking Speed Using A Single Camera In The Line Of Progression	Varre	Varre	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 244
505	Characterizing Upper Extremity Function Using Real World Evidence	Kaufman	Webber	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 245
553	Effects Of Trunk Movement Retraining On Gait Mechanics Of A Patient With Transtibial Amputation	Yoder	Yoder	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 246
640	Validation Of Micro Spikes For Mounting An Implant To A Tendon	Balasubramanian	You	Clinical and Real-world Applications	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 247
174	Hopping Performance In Individuals With Achilles Tendon Rupture: Applying A Constituent Lower Extremity Work Approach	Ebrahimi	Zellers	Clinical and Real-world Applications	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 248
386	Development Of A Musculoskeletal Finite Element Analysis Method For Dynamic Bone Stress Analysis Of Proximal Femur	Adachi	Adachi	Bone, Cartilage, & Tendon	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 249
469	Development Of A Structural Stochastic Finite Element Model Of Cancellous Bone	Alrafeek	Alrafeek	Bone, Cartilage, & Tendon	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 250
367	A Comprehensive Testing Suite For Mechanical Characterization Of Articular Cartilage With Documented Repeatability	Chokhandre	Chokhandre	Bone, Cartilage, & Tendon	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 251
338	Temporal Response Of Muscle-Bone Deformities At The Shoulder Following Brachial Plexus Birth Injury	Dixit	Dixit	Bone, Cartilage, & Tendon	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 252
387	A Comparison Of The Mechanical Properties Of Trabecular Bone Between Micro-Finite Element And Meshless Models	Ip	Ip	Bone, Cartilage, & Tendon	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 253
348	Associating Bone Mineral Density With Dynamic Skeletal Loading In Post-Menopausal Women	Fortune	Madansingh	Bone, Cartilage, & Tendon	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 254
73	Estimation Of Mechanical Load In-Vivo Based On The Trabecular Bone In The Vertebral Body	Mano	Mano	Bone, Cartilage, & Tendon	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 255
629	Effects Of Exercise And Posture On Subchondral Bone Thickness	Kersh	Rahman	Bone, Cartilage, & Tendon	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 256
324	Effect Of Tumor Size And Location Within Vertebral Body On Fracture Risk	Lu	Rezaei	Bone, Cartilage, & Tendon	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 257
644	Strain Rate Dependent Responses Of The Engineered And Native Cartilage	Seifzadeh	Seifzadeh	Bone, Cartilage, & Tendon	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 258
596	Experimental Measurement Of The Cutting Forces Generated During A Robot-Driven Glenoid Reaming Procedure	Sharma	Sharma	Bone, Cartilage, & Tendon	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 259
262	Local Thickness Of The Human Skull Affects Patterns Of Cranial Fracture	Wei	Snyder	Bone, Cartilage, & Tendon	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 260
476	Relating Gait And Bone Growth In Rat Tibia	Song	Song	Bone, Cartilage, & Tendon	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 261
355	Tendon Allograft Processing And Reconstitution	Thoreson	Thoreson	Bone, Cartilage, & Tendon	Thursday, Aug. 9	3:30:00 PM	5:00:00 PM	Th 262
29	Development Of Pelvis Model For Biomechanical Evaluation Of Minimally Invasive Acetabular Reconstruction	Wang	Tutton	Bone, Cartilage, & Tendon	Thursday, Aug. 9	2:00:00 PM	3:30:00 PM	Th 263
680	Effects Of Ankle Bracing On Knee And Hip Torques During Landing	Arnwine	Arnwine	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 001
293	Tibialis Anterior In Vivo Muscular Activity Decreases With Age Landing Biomechanics Differ Between Professional Dancers And Non-Dancers: Experimental And Preliminary Modeling Approaches	Ates	Ates	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 002
677	External Load Contributions To Acl Strain In Multiplanar Loading During Simulated Landings	Cortes	Azevedo	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 003
25	Influence Of Injury Risk Profiles On Acl Strain During Simulated Landings	Bates	Bates	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 004
26	Video Analysis Of Second Acl Injury Events In Male Professional Athletes	Bates	Bates	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 005
27	Knee Loading Correlations With Acl Geometries During Simulated Landings	Bates	Bates	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 006
34	Adaptation Of Lower Limb Joint Work In Single Leg Hopping After Unilateral Ankle Fatigue	Bell	Bell	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 007
32	Zero Echo Time (Zte) Imaging Bone And Joints	Breighner	Breighner	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 008
689	Sagittal Plane Trunk And Lower Extremity Movement During A Single Leg Drop Task At 6 And 12 Months After Anterior Cruciate Ligament Reconstruction	Briggs	Briggs	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 009
628	Number Of Successive Crank Cycles Needed To Achieve Stable Pedal Forces Data	Buddhadev	Buddhadev	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 010
78				Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 011

389	Frontal Plane Biomechanics During A Single Leg Hop Task Are Correlated With Quality Of Life And Confidence In Patients With Anterior Cruciate Ligament Reconstruction	Chen	Chen	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 012
130	Activation-Dependent Changes In Soleus Length-Tension Behavior Augment Ankle Stiffness	Clark	Clark	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 013
15	The Effect Of Hamstring Foam Rolling On Knee And Hip Joint Proprioception	Amasay	David	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 014
116	The Effect Of Mid-Flight Trunk Flexion And Extension On Center Of Mass Redistribution And Landing Mechanics	Davis	Davis	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 015
503	Measurement Of Knee Angles At Landing And Peak Ground Reaction Force Using Wearable Sensors	Esquivel	Esquivel	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 016
308	Quantifying Knee Injury Risk During A Wrestling Takedown	Altman-Singles	Fox	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 017
400	Single-Joint Strength Curves From A Multi-Joint Task	Fox	Fox	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 018
631	Comparing Patellofemoral Joint Stress Of Various Movements Optimizing Whole Body Kinematics To Reduce Peak Non-Sagittal Plane Knee Loads During Single Leg Jump Landing Task To Reduce Risk Of Acl Injury	Gheidi	Gheidi	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 019
345	Segment Coordination Variability Changes During Back Squats With Biofeedback	Gupta	Gupta	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 020
226	Segment Coordination Variability Changes During Back Squats With Biofeedback	Hannan	Hannan	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 021
443	Testing Of Rubber Bumpers For Improvement Of The Single Axis Foot	Hein	Hein	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 022
64	Effects Of Ankle Tendon Vibration On Post-Stroke Ankle Proprioception	Herrmann	Herrmann	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 023
139	Evaluation Of Three Dimensional Knee Cruciate & Collateral Ligament Strain With Digital Image Correlation	Hooke	Hooke	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 024
299	The Relationship Between Golf Stance And The Lead Limb Peak Knee Adduction Moment	Hooker	Hooker	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 025
62	Sex And Not Functional Ankle Instability Impact Peroneal Muscle Parameters	Ihmels	Ihmels	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 026
575	Dominant Limb Lower Extremity Work Predicts Performance In Individuals With Low Back Pain	Johnson	Johnson	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 027
31	Lower Limb Biomechanics During Single-Leg Landings Following Acl Reconstruction: A Systematic Review And Meta-Analysis.	Johnston	Johnston	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 028
61	3D Motion Analysis Of Successful Versus Failed Single-Leg Landings After Acl Reconstruction	Johnston	Johnston	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 029
533	Limb Asymmetries Post Acl Reconstruction: Can You Make The Decision?	Kakar	Kakar	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 030
251	Verbal Encouragement Does Not Produce Additive Effect On Quadriceps Function As Long As Sufficient Rest Period Is Provided	Park	Kim	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 031
455	Developing The Sensitivity Of A Human Ankle Joint Finite Element Model To The Thickness Of Cartilage	Kim	Kim	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 032
590	Biomechanical Characteristics Of Subtalar Joint Axis Of Rotation Individual With Chronic Ankle Instability	Kim	Kim	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 033
423	The Effects Of Muscular Fatigue And Gender On Knee Kinetics And Kinematics During The Forward Lunge	Lipat	Lipat	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 034
247	Decision-Making Influences Tibial Impact Accelerations During Lateral Cutting	Almonroeder	Lucas	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 035
359	The Effect Of Joint Hypermobility On Hip And Knee Kinetics And Strength In Adolescents With Juvenile Fibromyalgia	Marulli	Marulli	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 036
522	Posterior Lateral Tibial Contact With Lateral Wedging In Medial Osteoarthritis	Barrance	Mejia	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 037
77	Biomechanical Symmetry During Drop Jump And Single-Leg Hop Landing In Uninjured Adolescent Athletes	Mueske	Mueske	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 038
277	Sex Differences In Passive And Active Joint Stiffness During High-Velocity Threshold To Detect Passive Motion Test	Nagai	Nagai	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 039
234	Comparison Of Knee Biochemical Variables In Involved And Uninvolved Knees 6 Months Post Aclr	Neal	Neal	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 040
298	Inertial Parameter Changes Of The Shank And Thigh During Stamping	Pain	Pain	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 041
69	The Influence Of Patellar Tilt On Patellar Tendon Stress: A Sensitivity Analysis	Powers	Park	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 042
153	Effect Of Foot Rotation On Knee Mechanics During An Anticipated Running And Cutting Task	Peel	Peel	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 043
521	Regulation Of Whole Body Angular Impulse While Performing Golf Swings With Short And Mid Irons	Peterson	Peterson	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 044
488	Broad Jump Performance And Basketball Shoe Bending Stiffness	Picco	Picco	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 045
556	Injury Prevention Based On Computer Modeling Of Cleat Traction	Rittenhouse	Rittenhouse	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 046
248	Quadriceps Activation And Strength Changes During Repetitive Exercise In Individuals With Anterior Knee Pain	Park	Roh	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 047
241	Effect Of Meniscectomies On Acl Strain: A Dynamic Finite Element Study	Sadeqi	Sadeqi	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 048
197	Initiation And Propagation Of Microcracks In Collagen Networks Of Cartilage	Pierce	Santos	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 049
16	Effect Of Filter Cutoff On Impact Simulator Data: Artefact Of Artefction	Schilaty	Schilaty	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 050
17	Medial Collateral Ligament Strain Characteristics At Anterior Cruciate Ligament Failure	Schilaty	Schilaty	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 051

156	Ankle Kinematics And Kinetics Are Altered When Rounding A Raised Base	Schroeder	Schroeder	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 052
289	Material Properties Of The Thigh: Body Position Matters	Reid Bush	Scott	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 053
192	Reliability Of Motor Variability Among Healthy Controls And Athletes In A Side-Hop Task	Ulman	Ulman	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 054
477	Influence Of Vibration Intensity On Lower Limb Joint Loading During Standing	Yang	Underdahl	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 055
625	Effect Of Post Activation Potentiation On Knee Angle During Rebound Jumps	Walker	Walker	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 056
169	Verbal Instruction Reduces Patellofemoral Joint Loading During Bodyweight Squatting	Almonroeder	Watkins	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 057
678	Testing The Efficacy Of Acl Injury Prevention Programs Through Opensim	White	White	Lower Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 058
118	Impact Attenuation Of Biomechanics In Drop Landing On Synthetic Turf With Shock Pad	Zhang	Zhang	Lower Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 059
604	Agent-Based Computational Model Of Human Skeletal Muscle Adaptation To Changes In Activity	Anton	Anton	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 060
38	Effect Of Arm Motion On Standing Lateral Jump Performance	Ashby	Ashby	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 061
93	Differences In Knee Flexibility During Functional Movements Between Track And Field Athletes Based On Event Participation	Goehler	Austin	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 062
307	Laboratory And On-Field Results Of Athlete Head Impact Monitoring	Bartsch	Bartsch	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 063
485	Kinetic And Kinematic Differences In Weightlifting Movements With And Without The Use Of A Double Knee Bend	Carnall	Carnall	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 064
647	Sex Differences In Joint Kinetics During A Restricted Vertical Jump	Daugherty	Daugherty	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 065
578	Pacing Strategy Changes As Age Increases In Long Distance Runners	Agresta	Davis	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 066
435	Lower Extremity Biomechanics Are Altered In A Sport-Specific Virtual Environment	DiCesare	DiCesare	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 067
22	Kinematic And Kinetic Differences Between Left- And Right-Handed Professional Baseball Pitchers	Diffendaffer	Diffendaffer	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 068
369	Modelling Traction Forces During Boot-Surface Interactions	Forrester	Forrester	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 069
321	A Comparison Of Total Body Band-Resisted Exercises On Gluteus Medius Activation	Oliver	Friesen	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 070
244	Effect Of Late Training Sessions On Recovery: A Study Of Heart Rate Variability In Women, A&S Soccer	Johnson	Grotelueschen	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 071
63	Determining Kinematics Parameters That Dictate Successful Completion Of The Hurdle Step Functional Movement	Goehler	Harrold	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 072
95	"Investigating The Complexity Of Movement Patterns During American Football Competition"	Hasenkamp	Hasenkamp	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 073
142	Effects Of Finger Taping On Forearm Muscle Activation In Rock Climbers	Johnson	Johnson	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 074
45	Developing Methods Of Fatigue Analysis And Injury Prevention In Baseball Pitchers: A Study Using Motus Sensors	Goehler	Joslyn	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 075
474	The Effect Of Player Performance On Head Impact Exposure In Youth Football	Kelley	Kelley	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 076
42	Quantifying Human Motion In Swimmers Using Inertial Measurement Units	Goehler	Main	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 077
528	Individual Cross Punch Versus Combination Cross Punch Mechanics	Mazurek	Mazurek	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 078
121	Landing Characteristics Of Beanbag And Koosh Ball Throws	Meyer	Meyer	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 079
273	Effects Of Sex And Age On Hamstrings And Quadriceps Strength And Ratio In High School Basketball Players	Nagai	Nagai	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 080
274	Effects Of Sex And Age On Hip Flexors And Hamstrings Flexibility In High School Basketball Players	Nagai	Nagai	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 081
275	Neuromuscular Characteristics Of High School Basketball Players Who Later Suffered Hamstrings Strains: Preliminary Findings	Nagai	Nagai	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 082
51	Hop Distance And Loading Symmetry In Acl Reconstructed Athletes During Return To Sport Testing	Peebles	Peebles	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 083
691	Effects Of Age On Skeletal And Muscular Contributions To Leg Stiffness	Powell	Powell	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 084
405	Critical Factors In The Weight Throw For Collegiate Throwers	Becker	Schroeder	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 085
648	Wavelet Transform Analysis Countermovement Jump Performance	sha	sha	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 086
11	Muscle Activation Analysis With Kinematic Comparison Between Wind-Up And Stretch Pitching With Respect To The Upper And Lower Extremities	Smidebush	Smidebush	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 087
36	On The Plyometric Nature Of Olympic Weightlifting	Squillante	Squillante	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 088
381	Biomechanics Differ In High School Pitchers Based On Injury History	Struminger	Struminger	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 089
667	Upper Extremity Forces During Water Tubing	Suderman	Suderman	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 090
382	Analysis Of Ground Reaction Force Components During The Golf Swing	Trunt	Trunt	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 091

87	The Effects Of Resistance Bands On Trapezius Activity During Full-Body Exercises	Oliver	Wasserberger	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 092
237	Asymmetries In Knee Extensor Moments During Fatigue In Athletes Who Sustain Bilateral Acl Injuries	Webster	Webster	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 093
690	It Matters What You Curl, But Not To The Biceps Brachii	Weimar	Weimar	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 094
657	Center Of Mass Movement And Lower Limb Mechanics During Standing Cycling	Wilkinson	Wilkinson	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 095
44	Quantification Of The Shock Absorption Performance Of Construction Helmets In Top Impact	Wu	Wu	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 096
199	Effect Of Sex On Centre Of Mass During Sidestepping	Wyatt	Wyatt	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 097
451	Influence Of Chinstrap Attachment Location On American Football Helmet Impact Performance	York	York	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 098
149	Efficacy Of A New Football Helmet Liner Mechanism On Head Impact Accelerations	Yount	Yount	Sports and Exercise	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 099
694	Diversity In Shoulder And Abdominal Muscle Activation Patterns Used During The Volleyball Spike	Zaferiou	Zaferiou	Sports and Exercise	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 100
117	The Effect Of Mid-Flight Whole-Body And Trunk Rotation On Landing Mechanics	Critchley	Critchley	Competition - Masters	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 101
133	Modular Control Of The Timed-Up-And-Go Test In Stroke Survivors	Allen	McDonald	Competition - Masters	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 102
548	Time-Course Changes Of Treadmill Running Kinematics In Different Footwear	Paquette	Melaro	Competition - Masters	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 103
592	Changes In Structure And Loading Conditions Of The Equine Proximal Phalanx During Growth	Moshage	Moshage	Competition - Masters	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 104
138	Reducing The Metabolic Cost Of Fast Walking Through Stiff Insoles	Ray	Ray	Competition - Masters	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 105
624	Wearable Technology Measures Manual Tactile Forces During Activities Of Daily Living	Riddle	Riddle	Competition - Masters	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 106
518	Reliability Of Radiographic Evidence Of Glenohumeral Subluxation And The Relationship To Shoulder Joint Motion	Topley	Topley	Competition - Masters	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 107
361	The Role Of Cycle-To-Cycle Variability In The Development Of Shoulder Pain In Manual Wheelchair Users	Walford	Walford	Competition - Masters	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 108
59	The Effect Of Footwear On Barbell Back Squat Mechanics In Experienced Female Squatters	Walker	Walker	Competition - Masters	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 109
544	Utilizing Inertial Sensors To Evaluate Human Walking During A Long Outdoor Foot March	Ojeda	Wathen	Competition - Masters	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 110
195	Center Of Mass Motion During Sit-To-Stand Changes Through Pregnancy	Catena	Alejandro-Rios	Competition - Undergrad	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 111
448	The Effects Of Hearing Loss On Gait Stability In Older Adults	Gordon	Cornwell	Competition - Undergrad	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 112
470	Effect Of Number Of Segments In A Running-Specific Prosthesis Model On Hip And Knee Kinetics	Eustace	Eustace	Competition - Undergrad	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 113
641	Effects Of Fixed And Variable Damping Environments On Ankle Agility And Stability	Lee	Hanzlick	Competition - Undergrad	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 114
579	Creation Of Subject-Specific Subtalar Joint Contact Models From Weight Bearing Ct Scans	Dibbern	Hiller	Competition - Undergrad	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 115
205	The Achilles Tendon Moment Arm Exhibits Independent And Combinatory Effects Of Joint Rotation And Muscle Loading	Franz	Khanchandani	Competition - Undergrad	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 116
283	Finite Element Analysis Of The Rotator Cuff: A Systematic Review	Looft	Redepinning	Competition - Undergrad	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 117
250	Progressive Lateral Column Lengthening In A Cadaveric Flatfoot Model Increases Individual Bone Rotations In The Midfoot And Hindfoot	Szabo	Szabo	Competition - Undergrad	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 118
235	Evaluation Of Ankle Proprioception And Self-Reported Ankle Instability Using A Novel, Clinically-Oriented Procedure	Teater	Teater	Competition - Undergrad	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 119
264	Upper Limb Joint Kinematics During Touchscreen Interaction	Asakawa	Asakawa	Upper Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 120
633	Shoulder Muscle Activity Changes In Patients After Injection And Therapy	Cooper	Cooper	Upper Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 121
297	Quantifying Glenohumeral Joint Stiffness Across Different Shoulder Postures	Lipps	Diefenbach	Upper Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 122
57	Analysis Of Upper Extremity Moments During Hammering	Langenderfer	Ferdous	Upper Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 123
134	Shoulder Muscle Activation Patterns During Multiplanar Arm Elevation	Vardaxis	Gibbs	Upper Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 124
113	The Effect Of Wrist Position On Tendon Loads Following Pulley Sectioning And Operative Reconstruction	Haddara	Haddara	Upper Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 125
114	The Effect Of Sequential Flexor Tendon Pulley Sectioning And Reconstruction On Joint Range Of Motion And Tendon Load	Haddara	Haddara	Upper Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 126
577	Web-Based Visualization Of 4Dct Image Datasets For Assessing Wrist Injury	Zhao	Holmes III	Upper Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 127
229	Cumulative Load Exposure To Upper Extremities In Manual Wheelchair Users In Their Free-Living Environments	Hooke	Hooke	Upper Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 128
434	Force Transmission Through The Elbow Joint Associated With Contact Pressure And Contact Area In A Cadaveric Model With Forearm Instability	O'Driscoll	Hwang	Upper Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 129
639	Compensatory Muscle Activation Increases With Rotator Cuff Tear Severity: A Simulation Study	Khandare	Khandare	Upper Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 130
227	The Effect Of Material Heterogeneity On Trabecular Stiffness In Micro Finite Element Models	Knowles	Knowles	Upper Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 131

228	Accuracy Of Density-Modulus Relationships Used In Finite Element Modeling Of The Shoulder	Knowles	Knowles	Upper Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 132
306	Muscular Demands Associated With Manual Pallet Wrapping Techniques	Maciukiewicz	Maciukiewicz	Upper Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 133
411	Imaging-Based Quantification Of Shoulder Impingement During Manual Wheelchair-Based Activities Of Daily Living	Mozingo	Mozingo	Upper Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 134
688	Discrimination Between Hand/Wrist Occupational Tasks And Individual Workers Through The Use Of An Instrumented Wrist Brace	Gordon	Piper	Upper Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 135
612	Validation Of An Instrumented Wrist Brace For Tracking Wrist Kinematics In Occupational Settings	Gordon	Piper	Upper Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 136
172	Plane Of Arm Elevation Effect On Scapulohumeral Rhythm (Shr)	Vardaxis	Schossow	Upper Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 137
55	Thumb Force And Associated Activation Of Individual Thenar Muscles During Pipetting	Li	Selvaraj	Upper Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 138
232	Fatigue Of The Lower Trapezius Muscle Decreases Scapular Posterior Tilt During Arm Elevation.	Timmons	Timmons	Upper Extremity	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 139
618	Thumb Kinetics And Kinematics In Osteoarthritic And Healthy Participants	Vocelle (Cussen)	Vocelle (Cussen)	Upper Extremity	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 140
342	The Affect Of Neuromuscular Impairment On Motor Unit Activation In Children With Cerebral Palsy	Buchanan	Adams	Motor Control & Muscle	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 141
60	Soleus T- And H-Reflex Modulation When Performing An Unstable Stance	Chalmers	Chalmers	Motor Control & Muscle	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 142
500	Fatigue Affects Balance Control Differently During Single- And Dual-Task Walking In Older Workers	Chen	Chen	Motor Control & Muscle	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 143
330	Control Of Motor Units And Strategies Of Force Generation During Fatigue	Contessa	Contessa	Motor Control & Muscle	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 144
209	Modeling Motor Noise Regulation In A Simple Shuffleboard Machine	Cusumano	Cusumano	Motor Control & Muscle	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 145
94	Investigation Of Optimal Noise Level For Imperceptible Vibrotactile Stimulation	Haynes	Haynes	Motor Control & Muscle	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 146
152	Unique Locomotor Adaptations Emerge From Variable Asymmetric Split-Belt Treadmill Walking	Hinkel-Lipsker	Hinkel-Lipsker	Motor Control & Muscle	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 147
626	Motor Unit Measurement Technology For Training, Exercise And Functional Activities	Kline	Kline	Motor Control & Muscle	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 148
358	Accuracy Of Group Analyses In Representing Shoulder Muscle Coordination Patterns Of The Individual	Leonardis	Leonardis	Motor Control & Muscle	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 149
70	Effect Of Visual Rhythmic Cueing And Visual Feedback On Motor Control In Children With Autism	Lidstone	Lidstone	Motor Control & Muscle	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 150
357	Biomechanical Variability Among Individuals Following Acl Reconstruction And Rehabilitation	Lindley	Lindley	Motor Control & Muscle	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 151
343	Femoroacetabular Impingement Syndrome Alters The Kinematic Control Strategy During Gait	Malloy	Malloy	Motor Control & Muscle	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 152
447	Dynamic Ultrasound Analysis Of Median Nerve May Differentiate Clinically Significant Carpal Tunnel Syndrome Relationships Among Resting Muscle Tension, Short-Range Stiffness, Motion Detection, And Time To Peak Torque In Human Knee Joint	Mattioli	Mattioli	Motor Control & Muscle	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 153
279		Nagai	Nagai	Motor Control & Muscle	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 154
635	The Effect Of Surgical Alignment On Gait Complexity In Adult Deformity Patients - A Neuromuscular Synergy Approach	Hur	Nazifi	Motor Control & Muscle	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 155
493	Emg-Driven Musculoskeletal Simulations Using A New Threshold Optimization Technique	O'Brien	O'Brien	Motor Control & Muscle	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 156
137	Modular Control Of Gait In Healthy Older And Young Adults	Roelker	Roelker	Motor Control & Muscle	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 157
350	Kinematic Variability In Piano Performance	Schmidt	Schmidt	Motor Control & Muscle	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 158
660	Investigation Of Whole-Limb Motion As A Primary Motor Goal During Gait	DiBerardino	Sommers	Motor Control & Muscle	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 159
431	Mechanisms Of Preparation For Task Switching In Finger Pressing Task	Ambike	Tillman	Motor Control & Muscle	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 160
313	Designing Usable Assistive Devices In A First-Year Engineering Design Class: Lessons Learned To Maximize The Odds Of Success	Bigelow	Bigelow	Teaching/Outreach	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 161
608	Software-Based Training Can Improve Student Learning In Undergraduate Biomechanics Class	Gonzalez	Gonzalez	Teaching/Outreach	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 162
136	Student Perceptions Of Active Learning And Mastery In Biomechanics	Wallace	Knudson	Teaching/Outreach	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 163
86	Biomechanics To Engage Elementary Stem Education	Lanier	Lanier	Teaching/Outreach	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 164
212	Open-Ended Discussion In The Biomechanics Class	Troy	Troy	Teaching/Outreach	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 165
464	Biaxial Cyclic Loading Of Skin	Afsar Kazerooni	Afsar Kazerooni	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 166
681	Excursion Of Individual Wrist Tendons Using A Joint Motion Simulator And Phantom Limb	Anderson	Anderson	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 167
426	Quantifying The Shoulder Workspace Of Wheelchair Users And Able-Bodied Controls Using Imus	Cain	Cain	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 168
463	Accuracy Of Video Analysis For Forward Lean Releases In A Clinical Setting	Smeesters	Carbonneau	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 169
535	Instrumentation Of A Rod Rotation Wrench For Use In Scoliosis Surgery	Cummings	Cummings	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 170

559	Revisiting The Minimum Number Of Steps To Accurately Measure Step Kinematics During Treadmill Walking	Desmet	Desmet	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 171
310	Relationship Between Regional Lumbar Postures And Trunk Muscle Fatigability During Standing In Chronic Low Back Pain	Embaby	Embaby	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 172
497	Characterization Of A Miniaturized Horizontal Sled Determining The Odds Of Exceeding Niosh Recommended L5/S1 Spinal Compression Force Using A Bayesian Network	Estep	Estep	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 173
9	Implementation Of A Biomechanical Lifting Model	Hughes	Hughes	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 174
354	Normative Cervical Spine Kinematics Of A Circumduction Task In A Healthy Cohort	Ellingson	Kage	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 175
584	Lumbar Spine Biplane Fluoroscopy Validation Via An Automated Shape-Matching Algorithm	Ellingson	Kage	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 176
263	Passive And Active Characteristics Of The Smooth Muscle Of The Stomach And Its Finite Element Simulation	Kim	Kim	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 177
41	Analysis Of Stress Wave Propagation By An Anatomical Finite Element Model Of The Skull With The Suture Soft Tissue Stiffness Over The Hip Increases With Age And Its Implication In Hip Fracture In Older Adults: Data From One Hundred Fifty Individuals	Kiryama	Kiryama	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 178
255		Choi	Lim	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 179
651	Anatomical Model Evaluation Using In Vitro Squat Simulation	Manal	Manal	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 180
115	Effects Of Age And Gender On Cervical Lateral Bending Injury Tolerance Corridors	Shimada	Maroney	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 181
14	Custom Software For Calculation Of Shear Wave Velocity	McPherson	McPherson	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 182
105	Validation Of Imus For Trunk Kinematics During Treadmill Disturbances	Kaufman	Miller	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 183
276	Intrasession Reliability, Precision, And Between-/Within-Subjects Variability Of Hamstrings Shear Wave Elastography At Different Positions	Nagai	Nagai	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 184
300	Load Carriage Effect On The Ability To Control Dynamic Movement	Perlin	Perlin	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 185
437	Classifying Type Of Natural Gait Using Ann And Ankle-Mounted Accelerometer Data	Mahoney	Rhudy	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 186
372	Validation Of A Neck Model With Mucle Fatigue Using The Sorensen Test	Zhou	Roos	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 187
75	Assessing Fatigue And Stretching Affect On The Achilles Tendon Using Surface Wave Elastography	Salman	Salman	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 188
337	Added Mass Effects On Tendon Vibration Under Axial Load	Schmitz	Schmitz	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 189
349	Reliability, Validity, And Torque-Angle Curves Of Hip Strength Measurement By Hand-Held Dynamometry	Squier	Squier	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 190
58	Comparing Inertial Measurement Unit And Optical Infrared Passive Marker-Based Motion Capture Systems: Studying The Effects Of Subject Preparation Variability	Goehler	Valbuena	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 191
221	Changes In Muscle Shear Wave Propagation With Active And Passive Force Generation	Wang	Wang	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 192
510	Validity Of The Optogait Portable Photoelectric Cell System For Quantification Of Spatial-Temporal Parameters Of Running Gait	Weart	Weart	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 193
582	Does A Rotating Bar Affect The Body Kinematics During A Penny Drop Maneuver?	Yang	Yang	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 194
396	Investigation Of Fatigue-Associated Measures: An Exploratory Framework Using Supervised Classification Approach	Zheng	Zheng	Measurements, Validation, and Sensors	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 195
623	Does Neck Muscle Fatigue Affect Cervical Intervertebral Kinematics?	Chowdhury	Zhou	Measurements, Validation, and Sensors	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 196
365	Patterns Of Erector Spinae Activation And Trunk-Pelvis Kinematics In Persons With Lower Limb Amputation: Influences Of Low Back Pain	Butowicz	Acasio	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 197
314	Gait Restoration After A Spinal Cord Injury: A Simulation And Experimental Study Of The Double Support Phase	Alibeji	Alibeji	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 198
352	A Reactive Balance Rating Method To Assess Performance After Treadmill-Induced Trip-Like Perturbations	Allin	Allin	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 199
682	Postural Stability In Unilateral Transtibial Amputees Using Two Suspension Systems: Smartpuck Vs Lock And Pin	Alunan	Alunan	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 200
6	Effects Of Sound On Static Postural Stability	Soangra	Anderson	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 201
218	Preliminary Investigation On The Effects Of Xbox 360 Kinect Training On Gait And Likelihood Of Initiating A Loss Of Balance	Arena	Arena	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 202
459	Postural Stability, Vertical Stiffness, And Lower-Extremity Joint Motion During Multi-Direction Single-Legged Jump-Landings	Bond	Bond	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 203
516	Perturbation-Evoked Lateral Steps In Older Adults: Why Take Two Steps When One Will Do?	Borrelli	Borrelli	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 204
353	Investigation Of Exposure Time On Dynamic Stability Measures During Common Assessment Tasks	Buchholz	Buchholz	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 205
320	Influences Of Low Back Pain On The Energy Contributions Of The Hip And Spine During Gait Among Persons With Lower Limb Loss	Butowicz	Butowicz	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 206

617	Unwinding The Control Of Walking Turns	Curtze	Curtze	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 207
8	Reaction Time Of Young Adult And Middle-Aged Men And Women During A Forward Fall	DeGoede	Donlin	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 208
547	Spinal Decompression Surgery On Gait Efficiency And Balance Of Cervical Myelopathy Patients	Russell	Dooley	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 209
143	Age-Related Kinetic Imbalances During Gait	Hauselle	Ekanayake	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 210
520	Postural Control Measures Between Individuals Who Fall And Recover After An Unexpected Slip	Garner	Garner	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 211
615	The Impact Of Obesity On Gait Stability In Older Adults	Gonzalez	Gonzalez	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 212
351	Locomotor Stability Effort Changes Maneuver Execution In Incomplete Spinal Cord Injury	Gordon	Gordon	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 213
341	The Relationship Between Star Excursion Balance Test Joint Angles Limb Asymmetry And Normalized Reach Distance In 12 Weeks Post Hip Arthroscopy Patients	Hale	Hale	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 214
374	Repeated Motor Control Testing Decreases Co-Contraction Index In Healthy Young Adults	Hill	Hill	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 215
2	Texting While Walking Influences Step Width	Soangra	Hofstee	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 216
327	Smartphone Technology Can Measure Postural Stability And Distinguish Fall Risk In Older Adults	Hsieh	Hsieh	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 217
645	The Effect Of Surgical Alignment On Standing Balance In Adult Deformity Patients ,Äi Invariant Density Approach	Hur	Hur	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 218
198	Moving Beyond Trips And Slips With Proximal Determinants Of Falls In Older Adults: The Mobilize Boston Study	Kang	Kang	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 219
654	Ethnic Differences In Lower Extremity Static And Dynamic Postural Measures As A Potential Risk Factor For Anterior Cruciate Ligament (Acl) Injury	Lee	Kim	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 220
50	Balancing Human Driver Posture In Vehicle Under Lateral Motion	Kimpara	Kimpara	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 221
663	Joint Angle Coordination Strategies During Rotations In Dance	Lott	Lott	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 222
208	A Powered 3D Compass Walker: Energetics And Stability Of Period-1 Gaits	Maiti	Maiti	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 223
254	Equilibrium During Single-Leg Standing With Heel Raised Up In Individuals With Ankle Instability	Morikawa	Morikawa	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 224
622	The Effect Of Mental Fatigue On Postural Stability	Morris	Morris	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 225
456	Changes In Prosthetic Alignment Affect Ground Reaction Force Symmetry And Pain During Sit-To-Stand	Nolasco	Nolasco	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 226
526	Protocol For Realistic Virtual Reality Environment That Perturbs Balance	O'Connell	O'Connell	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 227
659	Direction And Modality Sensitivity Of Walking Balance To Visual Perturbations	O'Connor	O'Connor	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 228
150	Decreased Divergence Of The Trunk Movement Trajectories During Treadmill Walking Is Not Related To Trunk Flexion Of Young Subjects Following Treadmill-Delivered Disturbances Mimicing A Trip	Oludare	Oludare	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 229
665	Test-Retest Reliability Of The Sensory Organization Test And Central Sensorimotor Integration (Csmi) Test	Parrington	Parrington	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 230
140	Effect Of Speed Control On Global Stability Of A Powered Compass Walker	Patil	Patil	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 231
215	Effects Of Weighted Belt On Limit Of Stability During Standing	Choi	Phan	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 232
135	Center Of Pressure Response To Visual Perturbations In Virtual Reality	Phillips	Phillips	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 233
371	Longitudinal Association Of Standing Balance And Neurodegenerative Biomarkers In A Concussed Athlete: A Case Study	Pryhoda	Pryhoda	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 234
203	Visuomotor Error Augmentation Affects Mediolateral Head And Trunk Stabilization During Walking	Franz	Qiao	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 235
12	Effectiveness Of Sit To Stand Workstations: A Systematic Review	Radwan	Radwan	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 236
285	Dynamics Of Postural Control In Elite Sport Rifle Shooters	Raffalt	Raffalt	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 237
482	Dynamics Of Postural Control In Individuals With Lateral Ankle Sprain	Raffalt	Raffalt	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 238
462	Reliability Of Sensitive Parameter Estimates In Head Position Tracking	Ramadan	Ramadan	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 239
157	Medicine Ball Throw To Evaluate Postural Stability In Persons With Amputation	ROWE	ROWE	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 240
513	Rambling-Trembling Decomposition Is Not Sensitive To Intentional Poor Balance	Sandri Heidner	Sandri Heidner	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 241
303	A Simple Controller For Running Derived From Step-To-Step Variability	Seethapathi	Seethapathi	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 242
428	Effect Of Prophylactic Ankle Bracing On Dynamic Balance	Stephenson	Stephenson	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 243
527	Assessment Of Postural Control In Multiple Sclerosis: Identification Of Core Outcome Variables	Sun	Sun	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 244
233	Reliability Of A Novel, Clinically-Oriented Approach To Quantify Ankle Proprioception	Teater	Teater	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 245

175	Dynamic Stability During Walking In Children With And Without Cerebral Palsy: A Pilot Study	Crenshaw	Tracy	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 246
124	Posture Assessment Of A Chiropractor Performing Side Posture Adjustments: A Pilot Study Using An Inertial Measurement Unit System	Russell	Weiner	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 247
515	Lead Leg Recovery Responses Between Individuals Who Fall And Recover After An Unexpected Slip	Wilson	Wilson	Balance/Posture	Friday, Aug. 10	4:30:00 PM	6:00:00 PM	Fr 248
668	Relationship Between Muscle Activation And Postural Stability In Persons With Multiple Sclerosis	Zanini	Zanini	Balance/Posture	Friday, Aug. 10	3:00:00 PM	4:30:00 PM	Fr 249