

# **POSTER SESSION A (1)**

**Wednesday, May 18, 2016**

**9:30am-11:00am**

**Id: # 1**

ALTERATIONS IN AMPUTEE GAIT MECHANICS PRODUCED BY VARIED PYLON STIFFNESS AND DAMPING.

STEPHEN PIAZZA

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**Id: # 3**

ARE THERE FUNCTIONAL CHANGES IN GAIT WHILE USING A FUNCTIONAL ELECTRICAL STIMULATION DEVICE? A RETROSPECTIVE REVIEW.

LISA JAMESON ROY DAVIS LINDA WACK DAVID WESTBERRY

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**Id: # 5**

CASE STUDY: COMPARISON OF KNEE KINEMATICS DURING INDEPENDENT WALKING USING NON-STANDARD ANKLE-FOOT ORTHOTICS VERSUS BAREFOOT WALKING..

NANCY SCULLION HALUK ALTIOK

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**Id: # 7**

ASSESSING THE UTILITY OF PELVIC ACCELEROMETRY TRACKING FOR THE CLINICAL EVALUATION OF LOWER LIMB AMPUTEE WALKING PERFORMANCE..

GERASIMOS BASTAS TRACEY HONG

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**Id: # 9**

Reduction Of Metabolic Energy Consumption During Walking By Wearing Hip Assist Robot In Elderly Adults.

HWANG-JAE LEE

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**Id: # 11**

TEMPORAL-SPATIAL PARAMETERS BEFORE AND AFTER A DELAYED TRANSTIBIAL AMPUTATION.

BRITTNEY MAZZONE ADAM YODER MARILYNN WYATT

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**Id: # 13**

Glenohumeral Joint Dynamics Of Anterior And Posterior Walker Mobility During Functional Activities In Children With Cerebral Palsy.

CHRIS BURCKARDT

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**Id: # 15**

Adjusting Afo Stiffness To Improve Gait For Individuals Post Stroke: Current Clinical Prescription Versus Short Term Adaptation To A Stiffness-adjustable Afo.

MICHAEL ORENDURFF

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**Id: # 17**

AGE AT INJURY INFLUENCES GAIT PATTERN IN CHILDREN WITH TRAUMATIC BRAIN INJURY.

PATRICK AUTRUONG RACHEL LOECHER FRANK CHANG CLAIRE PALMER JAMES CAROLLO

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**Id: # 19**

THE EFFECT OF LIGHT TOUCH ON BALANCE CONTROL DURING OVER GROUND WALKING IN HEALTHY OLDER ADULTS.

AARON AWDHAN JOEL LANOVAZ CATHERINE ARNOLD JOYCE FUNG ALISON OATES

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**Id: # 21**

The Effect Of Walking Speed On Gait Of Bilateral Spastic Cerebral Palsy Children Who Walk In Crouch Gait .

YOSRA CHERNI AUDREY PARENT LAURENT BALLAZ ANNIE POULIOT MICKAEL BEGON

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**Id: # 23**

**PREDICTING LEG LENGTH DISCREPANCY IN CHILDREN WITH SPASTIC HEMIPLEGIC CEREBRAL PALSY USING THE MULTIPLIER METHOD.**  
JASON RHODES MICHELLE DUDEVOIR BREANNA PRITCHARD ALLISON FRICKMAN

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**Id: # 25**

**Cardinal Characteristics Associated With Gait And Functional Outcomes Following Surgery In Children With Cerebral Palsy.**  
JENNY ANGELI JASON LONG JAMES MCCARTHY

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**Id: # 27**

**Gait And Motor Function Changes Following Hemispherectomy In Children With Cerebral Palsy: A Case Series.**  
BRUCE MACWILLIAMS AMY SHUCKRA ALAN STOTTS JACQUES D'ASTOUS

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**Id: # 29**

**RELATIONSHIP AMONG INDICES OF KINEMATIC DEVIATION AND FUNCTION IN CHILDREN WITH CEREBRAL PALSY.**  
JON DAVIDS

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**Id: # 31**

**RELIABILITY AND VALIDITY OF EDINBURGH VISUAL GAIT SCORE AS AN EVALUATION TOOL FOR CHILDREN WITH CEREBRAL PALSY.**  
CHRIS CHURCH MARIA DEL PILAR DUQUE OROZCO NANCY LENNON OUSSAMA ABOUSAMRA JUSTIN CONNOR JULIE SEES JOHN HENLEY FREEMAN MILLER

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**Id: # 33**

**KNEE HYPEREXTENSION IN CHILDREN WITH CEREBRAL PALSY: OUTCOMES OVER A MINIMUM OF FIVE YEAR FOLLOW UP.**  
CHRIS CHURCH OUSSAMA ABOUSAMRA NANCY LENNON DAVEDA TAYLOR MARIA DEL PILAR DUQUE OROZCO JOHN HENLEY JUSTIN CONNOR JULIE SEES FREEMAN MILLER

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**Id: # 35**

**Short-term And Long-term Outcomes For Rectus Femoris Transfers In Ambulatory Patients With Cerebral Palsy.**  
CHRISTINA BICKLEY DOUGLAS BARNES JUDI LINTON NANCY SCARBOROUGH KATY MITCHELL ALEXIS ORTIZ

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**Id: # 37**

**THE EFFECT OF SURGICAL LENGTHENING ON COMPENSATORY GAIT STRATEGIES IN CHILDREN WITH LEG LENGTH DISCREPANCY.**  
SAHAR HASSANI

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**Id: # 39**

**Assessing The Relationship Of Harris Hip Score To Subjectively And Objectively Measured Physical Activity.**  
WILSHAW STEVENS JR KIRSTEN TULCHIN-FRANCIS ADRIANA DELARROCHA DAVID PODESZWA

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**Id: # 41**

**Longitudinal Gait And Functional Outcomes In Adolescents With Symptomatic Femoroacetabular Impingement.**  
ANTHONY ANDERSON KIRSTEN TULCHIN-FRANCIS WILSHAW STEVENS ADRIANA DELARROCHA DAVID PODESZWA

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**Id: # 43**

**Plantar Pressure Distribution During Running And Walking In Children.**  
ANA DE DAVID

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**Id: # 45**

**Objective Documentation Of Gait Decline Over Time In A Child With Charcot-marie-tooth: A Case Study.**

SYLVIA OUNPUU KRISTAN PIERZ KELLY POGEMILLER KATHARINE BELL ERIN GARIBAY GYULA ACSADI

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**Id: # 47**

**Test-retest Reliability Of Gait Tests In A Danish Rett Syndrome Population.**

HENRIK KOBLAUCH BENTE ANDERSEN MICHELLE STAHLHUT KASPER HANSEN TINA PASGAARD NIKI BYRGESEN CASPER PALMVG

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**Id: # 49**

**IMPACT OF GAIT ANALYSIS DATA ON SURGICAL RECOMMENDATIONS IN SPINA BIFIDA: A PILOT MULTICENTER STUDY.**

NICOLE MUESKE DEIRDRE RYAN JEFFREY THOMSON BITTE HEALY SYLVIA OUNPUU ALEXANDER NAZARETH TISHYA WREN

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**Id: # 53**

**WALKING IMPROVEMENT IN A CHILD WITH GROSS MOTOR DEVELOPMENTAL DELAY AFTER SEVEN WEEKS OF HIPPO THERAPY.**

ROGER JAMES HEIDI BRADY DOUG DENDY TAMMY CAMP DANIEL JENSEN HYUNG SUK YANG LESLIE THOMPSON CYNTHIA TIONGCO TERRY McLENDON RICHARD STEVENS

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**Id: # 55**

**Improving Gait Outcomes Through Manual Extremity Manipulation.**

BARRI SCHNALL

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**Id: # 57**

**KEEP IN STEP: A DEMONSTRATION ON THE USE OF VIRTUAL REALITY AVATARS FOR RE-TRAINING GAIT.**

MARK ELLIOTT OMAR KHAN IMRAN AHMED MUSA RAHHAL THEODOROS N. ARVANITIS

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**Id: # 59**

**Altered Sagittal- And Frontal-plane Kinematics Following High Intensity Stepping Training Vs Conventional Interventions In Subacute Stroke.**

GORDHAN B MAHTANI T. GEORGE HORNBLY

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**Id: # 61**

**RECOVERY TO BASELINE FOLLOWING SINGLE EVENT MULTI-LEVEL LOWER EXTREMITY SURGERY: A CLINICAL CASE STUDY.**

ANN FLANAGAN HALUK ALTIOK NANCY SCULLION MARY PEER SAHAR HASSANI

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**Id: # 63**

**BRIDGING RESEARCH AND CLINICAL PRACTICE: IMPLEMENTING FEASIBLE GAIT-INTENSITY TRAINING IN A GROUP FORMAT.**

LAURA LENHART AMY HUCKSTEP

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**Id: # 65**

**PEDIATRIC WALKING VS. TRAINING ON PROTOTYPE MOTOR-ASSISTED ELLIPTICAL: KINEMATIC AND Emg COMPARISONS AT SELF-SELECTED FAST SPEEDS.**

THAD BUSTER JUDITH M. BURNFIELD SONYA L. IRONS CARL A. NELSON LINDSEY H. TREJO TODD LEUTZINGER

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**Id: # 67**

**PRELIMINARY EFFICACY OF A SUPERIOR METHOD OF BIOFEEDBACK TO IMPROVE LIMB LOADING SYMMETRY DURING DECLINE WALKING FOLLOWING TOTAL KNEE ARTHROPLASTY.**

JESSE CHRISTENSEN PAUL LASTAYO RYAN MIZNER ROBIN MARCUS CHRIS PELT K BO FOREMAN

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**Id: # 69**

**ASSESSMENT OF MANUAL WHEELCHAIR PROPULSION WITH INTENSIVE, ROUTINE THERAPY IN CHILDREN WITH ORTHOPAEDIC DISABILITIES.**  
PUNEET RANA JACOB RAMMER SERGEY TARIMA ROGER DALEY GERALD HARRIS CHRISTY OSBORN

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**Id: # 73**

**PRE-OPERATIVE PHYSICAL ACTIVITY IN YOUTH WITH CEREBRAL PALSY.**  
KRISTEN NICHOLSON

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**Id: # 75**

**Application Of A Validated, Low-cost Motion Analysis System During An Intensive Community Based, Point-of-care Rehabilitation Program.**  
MEGHAN TEICH JACOB RAMMER REBECCA BOERIGTER CHRISTY OSBORN GERALD HARRIS

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**Id: # 77**

**Profile Of Individuals Associated With The National Association Of Riding Therapy.**  
JÉSSICA MAÍSSA GONÇALVES DE SOUZA MARIANNE LUCENA DA SILVA ANDREA GOMES MORAES ANA DE DAVID SARAH BRANDÃO PINHEIRO

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**Id: # 81**

**QUANTITATIVE UPPER EXTREMITY ASSESSMENT IN A PEDIATRIC POPULATION WITH ORTHOPAEDIC AND NEUROLOGICAL IMPAIRMENT FOLLOWING INTENSIVE THERAPY: A PROSPECTIVE STUDY.**  
RAKEL ZARB JACOB RAMMER CHRISTY OSBORN ROGER DALEY SERGEY TARIMA GERALD HARRIS

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**Id: # 83**

**EFFECT OF HAMSTRING LENGTHENING ON COMPRESSIVE LOADING DURING STRAIGHT LEG LIFTING.**  
PABLO DOPICO MICHAEL BRAMAN AUDREY ZUCKER-LEVIN BROOKE SANFORD KUNAL SINGHAL WILLIAM MIHALKO

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**Id: # 85**

**Imu Placement In The Assessment Of The Upper Limb Using Smoothness Metrics.**  
YANNICK QUIJANO JESÚS ENRIQUE CHONG IVETT QUIÑONES ALDO ALESSI PAOLA ULACIA PAOLA ULACIA ARIADNA LEÓN

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**Id: # 87**

**Evaluation Of Wheelchair Roller System For Therapeutic Use .**  
TAMARA COHEN JACOB RAMMER GERALD HARRIS

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**Id: # 89**

**Effect Of Upper Limb Position On Postural Control Strategy During Turning.**  
TOSHIHIRO MIWA SHIGEHITO MATSUBARA

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**Id: # 91**

**EFFECT OF HAMSTRING LENGTHENING ON PELVIC TILT AND LUMBAR LORDOSIS DURING NORMAL GAIT.**  
MICHAEL BRAMAN WILLIAM MIHALKO PABLO DOPICO KUNAL SINGHAL BROOKE SANFORD PHYLLIS RICHEY AUDREY ZUCKER-LEVIN

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## **POSTER SESSION B (2)**

**Thursday, May 19, 2016**

**9:30am-11:00am**

**Id: # 2**

**DIFFERENCES IN PRE-SLIP STABILITY DURING AN UNEXPECTED SLIP PERTURBATION WITH AND WITHOUT A BACKWARD LOSS OF BALANCE.**  
ERIC PITMAN

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**Id: # 4**

**Impact Of Alternative Footwear On Lower Extremity Muscle Activity During Normal And Slippery Gait.**

HARISH CHANDER JOHN GARNER CHIP WADE ADAM KNIGHT

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**Id: # 6**

**Emg PATTERNS OF FALL WITH TWO-BELT TYPE TREADMILL.**

SEONGMI SONG MIN HEO TAE KYU KWON

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**Id: # 8**

**DETERMINING THE BEST PREDICTOR OF FUTURE FALLS IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE.**

CASEY CANIGLIA JORDAN FREEMAN STEPHEN RENNARD JENNIFER YENTES

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**Id: # 10**

**An Age Comparison Of Gait Mechanics While Walking Down An Inclined Surface.**

KUNAL SINGHAL JEFFREY CASEBOLT

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**Id: # 12**

**Cell Phone Use Alters Obstacle Avoidance While Walking.**

JONATHAN DINGWELL PREETI CHOPRA DARLA CASTELLI

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**Id: # 14**

**PREDICTION OF CALCANEAL BONE COMPETENCE FROM BIOMECHANICAL ACCOMMODATION VARIABLES MEASURED DURING WEIGHTED WALKING.**

ROGER JAMES LEE ATKINS HYUNG SUK YANG JANET DUFEK BARRY BATES

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**Id: # 16**

**THE EFFECTS OF GENDER AND CORE STABILITY ON TEMPORAL-SPATIAL GAIT PARAMETERS DURING SHORT-TERM ADAPTATION TO 20% INCREASE IN BACKPACK LOAD CARRIAGE.**

DAVID HUDSON

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**Id: # 18**

**Long Term Gait Velocity Monitoring Of Older Population Using Ultrasonic Technology: Prelimnary Results.**

YANG-CHIEH FU DUSTIN GRAVES JOHN GARNER JOHN ROGERS JEREMY WEBSTER JAMES SABATIER

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**Id: # 20**

**THE EFFECTS OF CERVICAL COLLAR ON GAIT WALKING STRATEGY IN A PATIENT WITH DROPPED-HEAD SYNDROME - A CASE STUDY.**

RAM HADDAS ISADOR H. LIEBERMAN

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**Id: # 22**

**Gait Characteristics In Bipolar Disorder: A Preliminary Study.**

GU EON KANG BRIAN MICKEY BARRY KREMBS GLORIA HARRINGTON MELVIN MCINNIS MELISSA GROSS

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**Id: # 24**

**Gait Asymmetry In Younger And Older Adult Runners.**

REGINALDO FUKUCHI REED FERBER

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**Id: # 26**

**KNEE KINETICS IN YOUNG WOMEN WITH KNEE HYPEREXTENSION.**

PATRICIA TERAN H. JOHN YACK

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**Id: # 28**

**THE EFFECT OF PROLONGED WALKING EXERCISE ON KNEE JOINT CONTACT FORCE IN PATIENTS WITH KNEE OSTEOARTHRITIS.**

JONATHAN GUSTAFSON WILLIAM ANDERTON SARA PIVA SHAWN FARROKHI

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**Id: # 30**

**Ground Reaction Forces In Healthy And Knee Osteoarthritis Populations.**

MORGAN SLOAN

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**Id: # 32**

**The Effect Of Trunk Movement In The Sagittal Plane On Dynamic Stability At Slow Walking Speed.**

KEITA HONDA

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**Id: # 34**

**FRONTAL AND TRANSVERSE FOOT ORIENTATIONS INFLUENCE LOWER EXTREMITY KINEMATICS WHILE STANDING.**

SYDNEY SCHMIDT LOREN CHIU

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**Id: # 36**

**Effects Of Weightbearing Condition And Knee Postion On Activation Of The Soleus And M-gastrocnemius Muscles During Maximal Voluntary Isometric Contraction (mvic).**

JANET ADAMS

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**Id: # 38**

**Lower Extremity Muscle Activity During Descent From Varying Step Heights.**

EMILY GERSTLE

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**Id: # 40**

**Lower Extremity Neuromuscular Factors Associated With Postural Stability In Older Adults.**

STEPHEN COBB KEVIN KEENAN BRITTANY HEINTZ CHI CHO

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**Id: # 42**

**INTER-SEGMENTAL FOOT KINEMATICS DURING GAIT IN ELDERLY FEMALES WITH SYMPTOMATIC AND ASYMPTOMATIC HALLUX VALGUS.**

EO JIN KIM

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**Id: # 44**

**OBJECTIVE ASSESSMENT OF FOOT RADIOGRAPHS: TECHNIQUE AND NORMATIVE VALUES FOR THE MEDIAL COLUMN.**

VEDANT KULKARNI JILL FRIEBELE F. KAMALEI CRUZ JENNETTE BOAKES ANITA BAGLEY JON DAVIDS

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**Id: # 46**

**WEARABLE BIAXIAL FORCE SENSING SYSTEM FOR FOOT PRONATION/SUPINATION MONITORING.**

SANGJOON KIM GWANG MIN GU DONG YEON LEE EO JIN KIM JUNG KIM

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**Id: # 48**

**Comparison Of An Inertial Measurement System And A Motion Capture System In A Clinical Gait Analysis Laboratory.**

ROBERT HULBERT

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**Id: # 50**

**DISCRIMINATING HEAD ON BODY MOTION USING BODY WORN SENSORS.**

SERENE PAUL RAYMOND WALTHER ETHAN BESERIS LELAND DIBBLE BO FOREMAN BLAKE ROWINSKI MARK LESTER

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**Id: # 54**

**Prediction Of Hip Joint Center Location Using Davis And Seidel Methods: Effect On Hip Moments During Gait Of Normal Healthy Adults.**

GORDON ALDERINK

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**Id: # 56**

**A Novel Data Analysis Approach For Identification Of Performance Differences During Locomotion.**

JANET DUFEK JOHN HARRY JEFFREY EGGLESTON BARRY BATES

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**Id: # 58**

**RELATIVE CONTRIBUTIONS OF THE LOWER LIMB TO PEAK PROPULSIVE FORCE DURING GAIT.**

DAVID STAPLETON VASSILIOS VARDAXIS

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**Id: # 60**

**MUSCULOSKELETAL MODELING TO ESTIMATE MUSCLE TENDON LENGTHS IN CHILDREN WITH OSTEOGENESIS IMPERFECTA DURING NORMAL GAIT.**

CHRISTINA GARMAN ADAM GRAF JOE KRZAK ANGELA CAUDILL PETER SMITH GERALD HARRIS

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**Id: # 62**

**SIMPLIFIED UPPER EXTREMITY WHEELCHAIR MOBILITY MODEL.**

REBECCA BOERIGTER BROOKE SLAVENS LIANNA HAWI ALYSSA SCHNORENBERG GERALD HARRIS

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**Id: # 64**

**SENSITIVITY TO MARKER PLACEMENT IN THE Tsrhc FOOT MODEL.**

SOPHIA ULMAN

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**Id: # 66**

**REPEATABILITY OF A MULTI-SEGMENT FOOT MODEL WITH A 15-MARKER SET IN HEALTHY CHILDREN.**

EO JIN KIM

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**Id: # 68**

**Kinematic Comparison Of Three Plug-in Gait Variation Protocols In Gait Analysis.**

SWITHIN RAZU KAYLIN BEAN AMIRHOSSEIN JAHANDAR TRENT GUESS

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**Id: # 70**

**Gender Differences Between Score And Regression Methods For Locating Hip Joint Center.**

SWITHIN RAZU

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**Id: # 71**

**EFFECT OF INTER--MANUAL TRAINING ON HAND SHAPING DURING GRASP IN CHILDREN WITH UNILATERAL SPASTIC CEREBRAL PALSY.**

AVIVA WOLFF HOWARD HILLSTROM ANDREW GORDON

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**Id: # 72**

**COMPUTATIONAL MODELING OF BRACHIAL PLEXUS DEFICIENCY .**

AVIVA WOLFF ANDREAS KONTAXIS SCOTT WOLFE KATHERINE XIE

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**Id: # 74**

**ROLE OF MUSCLE CONTRACTIONS IN LOWER EXTREMITY COORDINATION VARIABILITY.**

BRADEN ROMER HOCHENG LU ZACH HARRIS JOSH TRAMMEL

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**Id: # 76**

**Three-dimensional Movement Strategies During Drop Jump And Single-leg Hop In Young Athletes With Recent Anterior Cruciate Ligament Reconstruction.**

NICOLE MUESKE CHRISTOPHER BROPHY J. LEE PACE MIA KATZEL TISHYA WREN

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**Id: # 78**

**Effect Of Acl Graft Type On Side-step Cutting In Young Athletes.**

NICOLE MUESKE RICARDO PADILLA J. LEE PACE MIA KATZEL BITTE HEALY TISHYA WREN

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**Id: # 82**

**Short And Mid-term Knee Kinematic And Kinetic Symmetry During Jumping And Hopping Tasks After Acl Repair: .**

SYLVIA OUNPUU ERIN GARIBAY NICK GIAMPRETRUZZI DANIELLE SUPRENANT MATTHEW MILEWSKI

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**Id: # 84**

**Gender Differences During The Modified Star Excursion Balance Test.**

BRAD WILLIS

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**Id: # 86**

**Unilateral Quadriceps Loading During Full Squat Exercise With And Without Single-foot Elevation In Acl Injured Persons.**

LIANE JEAN LOREN CHIU

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**Id: # 88**

**Comparison Of Lower Extremity Kinematics And Kinetics And Center Of Mass-center Of Pressure Relationship Between A Classical Ballet And Jazz Pirouette: A Case Report.**

GORDON ALDERINK

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**Id: # 90**

**Comparison Of Lumbopelvic Rhythm Between With And Without Low Back Pain Among Adolescent Soccer Players During Trunk Extension.**

MICHIO TOJIMA SUGURU TORII

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