

GCMAS 2013 Schedule of Podium Sessions

Order	Session	Presenting Author
Wednesday, May 14 from 8:15-9:45A		
Podium Session 1. Sports		
1	Assessing knee function in ACL deficient patients using a virtual environment	Susan DAndrea
2	The effect of a cadence retraining protocol on running mechanics and efficiency	Jocelyn Hafer
3	Improvement in GMFM scores and jumping mechanography parameters in children with cerebral palsy after plyometric training: a case series	Barbara Johnson
4	Reliability of force plate post-concussion evaluations	Catherine Quatman-Yates
5	Acute effects of concussion on lower extremity inter-joint coordination during obstacle crossing and dual-task walking	Li-Shan Chou
6	Validation and reliability of a single leg squat test for use with adolescent athletes	Cristine Agresta
7	Validation of a novel clinical tool to measure pelvic tilt	Ajit Chaudhari
8	Gait analysis with dynamic emg for treatment planning in an adult with hip pathology and runner's dystonia: a case study	Lisa Lighthall Haubert
Wednesday, May 14 from 1:15-2:45P		
Podium Session 2. Cerebral Palsy		
1	Impact of gait analysis on correction of excessive hip internal rotation in ambulatory children with cerebral palsy	Tishya Wren
2	Predicting changes in gait associated with ankle foot orthosis use in children with cerebral palsy	Andy Ries
3	Control of walking speed in children with cerebral palsy	Suzu Chen
4	Altered gait kinematics and stride detection using the Step Watch™ in youth with cerebral palsy	Ameeka George
5	Muscle weakness is not evenly distributed across the lower limb in children with cerebral palsy	Geoffrey Handsfield
6	MRI-based muscle volumes add new dimension to standard gait analysis for children with cerebral palsy	Shawn Russell
7	Cartilage thickness decreases with crouch gait severity	Katherine Steele
Wednesday, May 14 from 3:15-5:15P		
Podium Session 3. Applications in Motion Analyses		
1	Sagittal plane knee kinematics and kinetics during stair climbing at different speeds	Jackie Lewis
2	Active control of foot placement during perturbed gait	Stephanie Buffo
3	Using gait analysis to document disease progression in a patient with an unknown progressive disorder: a case study	Sylvia Ounpuu
4	Prevalence of autism spectrum disorder in children that present with toe walking	Mark McMulkin
5	Quantification of hyperactivity and stereotypies in Fragile X Syndrome using a novel markerless motion analyses system	Joan O'Keefe
6	Application of the gait deviation index in quantifying overweight childrens mobility	Carlos Marquez-Barrientos
7	General linear models for estimating static scapular orientation in children with brachial plexus birth palsy	Stephanie Russo
8	Deltoid force and excursion demands of the reverse total shoulder prosthesis compared to massive rotator cuff tear	James Otis
Thursday, May 15 from 8:15-9:45A		
Podium Session 4. Orthotics and Prosthetics		
1	The effect of walking surface on lateral stability of individuals with and without transtibial amputations	Deanna Gates
2	Does novel fall-prevention program improve gait parameters in unilateral transtibial amputees?	Birgit Unfried
3	Virtual reality rehabilitation for amputees: an innovative technique to efficient and expedited rehabilitation	Maurissa DAngelo
4	Emg of the tibialis anterior demonstrates a training effect after utilization of a foot drop stimulator	Karen J. Nolan
5	Use of computerized gait analysis for assessment & optimization of FES device: a case study	Mitch Barr
6	Physical activity, performance measures, and gait variability in people with lower-limb amputation	Suh-Jen Lin
7	Muscle contributions to knee joint loading in unilateral transtibial amputee walking	Anne Silverman
8	Optimizing the spring configuration of a passive elastic exoskeleton	Charalambos Charalambous

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Order	Session	Presenting Author
Thursday, May 16 from 11:00A-12:00P		
Podium Session 5. <i>Foot and Ankle</i>		
1	Fluoroscopic assessment of hindfoot kinematics during gait: comparison of barefoot and shod motion	Alexander Griffin
2	Crouch gait changes after planovalgus foot deformity correction in ambulatory children with cerebral palsy	Muayad Kadhim
3	Comparing neurological involved and neurological normal planovalgus foot motions	Bruce MacWilliams
4	Tibialis posterior transfer corrects drop foot component of cavovarus foot in Charcot-Marie-Tooth	Thomas Dreher
5	The effect of plantarflexion angle on landing mechanics using a within-subjects real-time feedback protocol	K. Michael Rowley
Thursday, May 16 from 1:45-3:00P		
Podium Session 6. <i>Gait Analysis: Adults</i>		
1	Hip and pelvis kinematics during a single leg squat in people with and without pre-arthritis hip disease: preliminary data	Marcie Harris-Hayes
2	Knee osteoarthritis results in kinematic and kinetic interlimb asymmetry during gait	Tyler Richardson
3	Increased gait variability may not imply impaired stride-to-stride control in healthy elderly	Jonathan Dingwell
4	Frontal plane balance control during timed up and go test predicts prospective falls in elderly adults	Tzurei Chen
5	Impacts of muscle strength and balance control on sit-to-walk and turning durations in the timed up and go test	Tzurei Chen
6	Walking instability following stroke can be revealed by dynamic stability analyses	Pei-Chun Kao
7	Lower extremity coordination patterns in post-stroke gait based on self-selected walking speed classification	Amy Lenz
Thursday, May 16 from 4:00-5:30P		
Podium Session 7. <i>Data Methods</i>		
1	The comparison of normative reference data from different gait analysis services	Richard Baker
2	A motion analysis based technique for measuring frontal plane lower-limb alignment in patients with fixed knee flexion contractures	Adam Rozumalski
3	Markerless motion capture in the study of knee joint mechanics-evaluation of the external knee adduction moment	Marc Sarran
4	Comparison of gait kinematics derived from conventional and functional methods	Adam Rozumalski
5	A Matlab platform to efficiently process kinematic and kinetic data for applications in OpenSim	Alice Mantoan
6	Step length calculation using accelerometer and gyroscopes	Tharshan Vaithianathan
7	Developing user driven treadmill control to simulate speed changes in overground walking	Christopher Stanley
Friday, May 17 from 8:45-10:15A		
Podium Session 8. <i>Orthopaedics</i>		
1	Criteria and outcomes for femoral derotational osteotomies: the roles of anteversion and dynamic hip rotation	Michael Schwartz
2	Changes in secondary effects of lever-arm dysfunction in children with spastic diplegia following bilateral derotational femoral osteotomies	Jean Stout
3	A detailed evaluation of genu varum in children and adolescents using three-dimensional gait analysis	Kristan Pierz
4	Patellar position effects on the knee extensor mechanism	Rachel Lenhart
5	Gluteus maximus and soleus compensate for simulated quadriceps atrophy and activation failure during walking	Julie Thompson
6	Tracking recovery from orthopedic surgery in youth with CP using the Step Watch™: a short-term case series	Nancy Lennon
7	Ambulatory activity monitoring of youth with arthrogryposis and lower limb salvage	Saori Ishikawa