

GCMAS 2014 Schedule of Podium Sessions

Order	Session	Presenting Author
Wednesday, June 25 from 8:15-10:00A		
	Podium Session 1. <i>Gait Analysis</i>	
1	Use of shear wave ultrasound elastography to quantify muscle material properties in individuals with cerebral palsy	Sabrina Lee
2	Quantifying altered muscle properties with ultrasound elastography and musculoskeletal simulation	Katherine Steele
3	Muscle synergy complexity reflects selective motor control in children with cerebral palsy	Michael Schwartz
4	Changes in muscle synergies are independent of altered biomechanics during crouch gait	Katherine Steele
5	Evidence of critical coordination events in the swing period of gait	Kate Worster
6	The independence of bilateral knee flexion data in children with diplegic cerebral palsy	Timothy Niiler
7	Automatic classification of sagittal gait pattern: the plantar flexion-knee extension couple index and scatter plot	Morgan Sangeux
8	The hip specific gait deviation index: a modified comprehensive index of gait pathology	Deraan Collins
9	The trade-off between hip flexors and ankle plantar flexors due to age and speed	Amy Bucha
Wednesday, June 25 from 10:30-12:00P		
	Podium Session 2. <i>Data Methods</i>	
1	Simple and practical quality assurance for optical motion analysis systems	John Henley
2	Protocol review: demonstration of need for continued quality assurance within a clinical motion laboratory	Jean Stout
3	Automated gait cadence assessment from non-motorized treadmill belt speed data	Adam Fullenkamp
4	Comparing the variability of normal walking to crouch gait within healthy subjects	Stephen Suydam
5	A sparse motion capture development platform for use in occupational biomechanics	Frank Buczek
6	Assessment of loading rate using tri-axial accelerometers	Emma Fortune
7	The use of a Wii balance board to measure movement symmetry in patients with lower extremity joint pathology	Gregory Gillispie
8	Hip joint center differences between dual fluoroscopy, functional hip and coda	Niccolo Fiorentino
Wednesday, June 25 from 2:30-4:00P		
	Podium Session 3. <i>Orthopaedics</i>	
1	Predicting medial joint contact force from knee joint moments	Kurt Manal
2	Effect of valgus knee bracing on medial and lateral compartment loading during stair descent	Lilly Tran
3	Relationships between individual muscle sizes and joint torques in athletes	Geoffrey Handsfield
4	Changes in coordination variability with increased running cadence	Jocelyn Hafer
5	Evaluation of symmetry in knee kinematics and kinetics following return to sport approval in adolescents post ACL reconstruction	Sylvia Ounpuu
6	Effects of 2-D video feedback on joint and limb mechanics during a single limb landing in a subject at risk of patellofemoral osteoarthritis: a single subject analysis	Lee Atkins
7	Clinical gait comparison of servicemembers with delayed transtibial amputations to limb salvage	Brittney Mazzone
8	The effect of wrist motion on reducing compensatory movements in transradial prosthesis users	Susannah Engdahl
Thursday, June 26 from 8:15-10:00A		
	Podium Session 4. <i>Gait Analysis: Adults</i>	
1	Influence of temporal constraints on spatio-temporal gait parameters in children and adults	Simone Gill
2	Effects of additional anterior body mass on spatio-temporal gait parameters	Simone Gill
3	Influence of tactile feedback on stride length and step width during normal walking	Braden Romer
4	The relationships between paretic propulsion, trailing limb angle, step length asymmetry, and walking function after stroke	Louis Awad
5	Gait kinematics and compensatory stepping ability are independent aspects of fall risk for older adult women	Jeremy Crenshaw
6	Training with real-time visual feedback of propulsive force in post-stroke individuals: a case study	Brian Knarr
7	Gait and mobility deficits in fragile x-associated tremor/ataxia syndrome (FXTAS) using the instrumented timed up and go test	Joan O'Keefe
8	Rehabilitation of a young adult following total hip arthroplasty 10 years after gridlestone procedure	Cara Lewis

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Order	Session	Presenting Author
Thursday, June 26 from 4:15-6:00P		
	Podium Session 5. <i>Upper Extremity</i>	
1	Dynamic control of fingertip forces after pollicization	Nina Lightdale-Miric
2	Biomechanical model of triaxial wrist dynamics during tasks of daily living	Patrick Roscher
3	Comparison of trapeziometacarpal joint motion using maximal and clinical measurement techniques	Robert Hulbert
4	Reach trajectories of the dominant and non-dominant hands	Jeffrey Cowley
5	Kinematic analysis of reach to grasp by children with down syndrome	Sara Hogg
6	Determining 3D orientation of irregularly shaped objects from biplane 2D images	Kristen Nicholson
7	Scapulothoracic and glenohumeral movement patterns in children with brachial plexus birth palsy treated non-surgically	Stephanie Russo
8	Glenohumeral joint forces during functional mobility among children with spinal cord injury using manual wheelchairs	Christine Aurit
9	Effect of concomitant latissimus dorsi transfer on joint reaction force for reverse total shoulder arthroplasty	James Otis
10	Comprehensive electromyographic study of shoulder abduction	Robert Quinton
Friday, June 27 from 8:15-10:00A		
	Podium Session 6. <i>Cerebral Palsy</i>	
1	Long term gait outcomes of idiopathic toe walkers	Mark McMulkin
2	The effectiveness of posterior knee capsulotomies and knee extension osteotomies in children with cerebral palsy	Daveda Taylor
3	Simulation of knee cartilage contact pressure in crouch gait	Rachel Lenhart
4	Comparison of dynamic versus adjustable dynamic response ankle foot orthoses in children with cerebral palsy	Tishya Wren
5	Differences in physical activity by day, by week, and by season in children and youth with cerebral palsy	Aaron Weaver
6	Quantification of turning ability using pelvis kinematics in children with cerebral palsy	Philippe Dixon
7	Reference curves for lower extremity strength in ambulatory children with cerebral palsy	Donna Oeffinger
8	Utilization of newly developed reference curves to test association between strength and function	Donna Oeffinger
9	Changes in gait over time without surgical intervention for a person with cp GMFCS level III: a case study	Sylvia Öunpuu
Friday, June 26 from 11:30-12:24P		
	Podium Session 7. <i>Foot/Trunk</i>	
1	Anterior tibialis activity in recurrent clubfoot: considerations in stance phase supination deformity	Sylvia Öunpuu
2	Gait outcomes at 5yrs following a nonoperative-hybrid approach in the treatment of clubfoot: combination of the Ponseti casting and French physical therapy methods	Ashley Erdman
3	Foot type biomechanics: influence of race and gender	Jinsup Song
4	Assessing spinal motion relative to the lowest instrumented fused vertebrae in adolescent idiopathic scoliosis: a two-year follow-up	Sahar Hassani
5	Effects of backpack load carriage and non-localized fatigue on passively unstable and stable surface balance	Peter Quesada
6	Conservation of combined ankle and foot powers during stance in gait	Elisa Arch
7	Using chest kinematics to measure pulmonary function in children with scoliosis and matched control subjects	Juanita Wallace