

REFeree-JUDGED SCIENTIFIC PUBLICATIONS

Submitted:

- (1) Engström P, Bartonek A, Tedroff K, Orefelt C, Haglund-Akerlind Y, **Gutierrez-Farewik EM**, Botulinum toxin A does not improve cast treatment for idiopathic toe-walking- a randomized controlled trial. Submitted 2012
- (2) Kosterina N, Wang R, Eriksson A, **Gutierrez-Farewik EM**. Force enhancement and force depression in a modified muscle model used for muscle activation prediction. Submitted 2012
- (3) Wang R, **Gutierrez-Farewik EM**. Compensatory strategies in response to excessive muscle co-contraction at the ankle joint during walking. Submitted 2012
- (4) Murans G, **Gutierrez-Farewik EM**, Hirschfeld H, Saraste H. Quantification of dynamic sitting balance in patients with neuropathic spine deformity. Submitted 2011
- (5) Klets O, Riad J, Broström EW, **Gutierrez-Farewik EM**. Moment-generating biomechanical factors of hip muscles in persons with unilateral cerebral palsy with subject-specific models. Submitted 2012.
- (6) Wang R, **Gutierrez-Farewik EM**. A parametric study of the rigid foot-ground contact model: effects on induced angular accelerations of the lower limb joints in the stance-phase. Submitted 2012
- (7) Lidbeck, C, **Gutierrez-Farewik, EM**, Broström, EW, Bartonek, Å., Variation in postural orientation during standing among children with cerebral palsy. Submitted 2012.
- (8) Bartonek Å, Wang R, Eriksson M, **Gutierrez-Farewik EM**. Comparison of two carbon fibre spring orthoses' effect on gait in children with myelomeningocele. Submitted 2012.

Published/Accepted

- (1) Wang R, Broström EW, Esbjörnsson AC, **Gutierrez-Farewik EM**. Analytical decomposition can help to interpret ankle joint moment-angle relationship. *Journal of Electromyography and Kinesiology*, 2012 22:566-74.
- (2) Petterson R, Bartonek Å, **Gutierrez-Farewik EM**. Posture strategies generated by constrained optimization. *Journal of Biomechanics*, 2012 45:461-468.
- (3) Riad J, Modlesky CM, **Gutierrez-Farewik EM**, Weidenhielm Broström E. Are Muscle Volume Differences Related to Concentric Muscle Work During Walking in Spastic Hemiplegic Cerebral Palsy? *Clinical Orthopaedics and Related Research*, 2012 470:1278-1285.
- (4) Bartonek, Å., Lidbeck, C, Petterson, R, Weidenhielm Broström, E., Eriksson, M., **Gutierrez-Farewik, EM**. Influence of heel lifts during standing in children with motor disorders. *Gait and Posture*, 2011 34:426-31.
- (5) Murans G, **Gutierrez-Farewik EM**, Saraste H. Kinematic and kinetic analysis of static sitting of neuropathic patients with spine deformity. *Gait & Posture* 2011 34:533-8.
- (6) Wang R, **Gutierrez-Farewik EM**. The effect of subtalar inversion/eversion on the dynamic function of the tibialis anterior, soleus, and gastrocnemius during the stance phase of gait. *Gait & Posture* 2011 34:29-35

- (7) Engström P, **Gutierrez-Farewik EM**, Bartonek A, Tedroff K, Orefelt C, Haglund-Akerlind Y. Does Botulinum toxin A improve the walking pattern in children with idiopathic toe-walking? *J Child Orthop* 2010;4:301-8.
- (8) Eriksson M, **Gutierrez-Farewik EM**, Brostrom E, Bartonek A. Gait pattern in children with arthrogryposis multiplex congenita. *J Child Orthop* 2010;4(1):21-31.
- (9) Tedroff K, Lowing K, Haglund-Akerlind Y, **Gutierrez-Farewik EM**, Forssberg H. Botulinumtoxin A treatment in toddlers with cerebral palsy. *Acta Paediatr* 2010;99 (8):1156-62.
- (10) Wang R, Thur CK, **Gutierrez-Farewik EM**, Wretenberg P, Brostrom E. One year follow-up after operative ankle fractures: a prospective gait analysis study with a multi-segment foot model. *Gait Posture* 2010 Feb;31(2):234-40.
- (11) Nielsen C, **Gutierrez-Farewik EM**, Hirschfeld H, Saraste H. Seat load characteristics in children with neuromuscular and syndrome-related scoliosis: effects of pathology and treatment. *J Pediatr Orthop B* 2008 May;17(3):139-44.
- (12) Bartonek A, Eriksson M, **Gutierrez-Farewik EM**. A new carbon fibre spring orthosis for children with plantarflexor weakness. *Gait Posture* 2007 Apr;25(4):652-6.
- (13) Bartonek A, Eriksson M, **Gutierrez-Farewik EM**. Effects of carbon fibre spring orthoses on gait in ambulatory children with motor disorders and plantarflexor weakness. *Dev Med Child Neurol* 2007 Aug;49(8):615-20.
- (14) Brostrom E, Ortqvist M, Haglund-Akerlind Y, Hagelberg S, **Gutierrez-Farewik E**. Trunk and center of mass movements during gait in children with juvenile idiopathic arthritis. *Hum Mov Sci* 2007 Apr;26(2):296-305.
- (15) Heintz S, **Gutierrez-Farewik EM**. Static optimization of muscle forces during gait in comparison to EMG-to-force processing approach. *Gait Posture* 2007 Jul;26(2):279-88.
- (16) Ortqvist M, **Gutierrez-Farewik EM**, Farewik M, Jansson A, Bartonek A, Brostrom E. Reliability of a new instrument for measuring plantarflexor muscle strength. *Arch Phys Med Rehabil* 2007 Sep;88(9):1164-70.
- (17) **Gutierrez-Farewik EM**, Bartonek A, Saraste H. Comparison and evaluation of two common methods to measure center of mass displacement in three dimensions during gait. *Hum Mov Sci* 2006 Apr;25(2):238-56.
- (18) Bartonek A, **Gutierrez EM**, Haglund-Akerlind Y, Saraste H. The influence of spasticity in the lower limb muscles on gait pattern in children with sacral to mid-lumbar myelomeningocele: a gait analysis study. *Gait Posture* 2005 Aug;22(1):10-25.
- (19) **Gutierrez EM**, Bartonek A, Haglund-Akerlind Y, Saraste H. Kinetics of compensatory gait in persons with myelomeningocele. *Gait Posture* 2005 Jan;21(1):12-23.
- (20) **Gutierrez EM**, Alm M, Hultling C, Saraste H. Measuring seating pressure, area, and asymmetry in persons with spinal cord injury. *Eur Spine J* 2004 Jul;13(4):374-9.
- (21) Alm M, **Gutierrez E**, Hultling C, Saraste H. Clinical evaluation of seating in persons with complete thoracic spinal cord injury. *Spinal Cord* 2003 Oct;41(10):563-71.
- (22) **Gutierrez EM**, Bartonek A, Haglund-Akerlind Y, Saraste H. Centre of mass motion during gait in persons with myelomeningocele. *Gait Posture* 2003 Oct;18(2):37-46.

- (23) **Gutierrez EM**, Bartonek A, Haglund-Akerlind Y, Saraste H. Characteristic gait kinematics in persons with lumbosacral myelomeningocele. *Gait Posture* 2003 Dec;18(3):170-7.
- (24) **Gutierrez E**, Huang Y, Haglid K, Bao F, Hansson HA, Hamberger A, et al. A new model for diffuse brain injury by rotational acceleration: I model, gross appearance, and astrocytosis. *J Neurotrauma* 2001 Mar;18(3):247-57.
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- (26) **Gutierrez EM**, Helber MD, Dealva D, Ashton-Miller JA, Richardson JK. Mild diabetic neuropathy affects ankle motor function. *Clin Biomech* 2001 Jul;16(6):522-8.

REFEREE-JUDGED INTERNATIONAL CONFERENCE CONTRIBUTIONS whose results were not published elsewhere (past 5 years)

- (1) Wang R., **Gutierrez-Farewik E.M.** Compensatory strategies for excessive muscle co-contraction at the ankle. European Society of Movement Analysis of Adults and Children, September 2012, Stockholm.
- (2) Lidbeck CM, Gutierrez-Farewik EM, Broström EW, Bartonek Å. Crouched standing posture in bilateral cerebral palsy. European Society of Movement Analysis of Adults and Children, September 2012, Stockholm.
- (3) Wang R., Broström E. **Gutierrez-Farewik E.M.** Pathological gait characterization via moment-angle relationship: a new decomposition method. European Society of Movement Analysis of Adults and Children, September 2011, Vienna, Austria.
- (4) Broström E., Rozumalski A., Örtqvist, M., Hagemäs L., **Gutierrez-Farewik E.M.**, Schwartz M.: A comparison of functional and regression-based hip joint centers in patients persons with achondroplasia, European Society of Movement Analysis of Adults and Children, September 2009, London.
- (5) Wang R., Broström E. **Gutierrez-Farewik E.M.** Analysis of foot kinematics during gait in adults with rheumatoid arthritis, European Society of Movement Analysis of Adults and Children, September 2007, Athens, Greece. Published abstract: *Gait & Posture* 26 (Suppl 1) 2007: S20.
- (6) Örtqvist M., **Gutierrez-Farewik E.M.**, Farewik M., Bartonek Å., Broström E. Reliability of a new muscle strength testing instrument in measuring isometric knee extensor and knee flexor strength, European Society of Movement Analysis of Adults and Children, September 2007, Athens, Greece. Published abstract: *Gait & Posture* 26 (Suppl 1) 2007: S23-S24.
- (7) **Gutierrez-Farewik E.M.**, Munaretto J., Pontén E.: Towards a new protocol for motion analysis of the upper extremities in hemiplegic cerebral palsy. European Society of Movement Analysis of Adults and Children, September 2006, Amsterdam, the Netherlands.
- (8) Löwing K., Thews K., Haglund-Åkerlind Y., **Gutierrez-Farewik E.M.**: Long-term effects of a combination of treatment with exercise, orthoses, and botulinum toxin-A in children with cerebral palsy. European Society of Movement Analysis of Adults and Children, September 2006, Amsterdam, the Netherlands.