

ANDREW S. MERRYWEATHER, PhD - BIOGRAPHICAL SKETCH

Associate Professor, Mechanical Engineering

Office: Mechanical Engineering, University of Utah, 1495 S 100 E, 1550 MEK, Salt Lake City, Utah 84112

email: a.merryweather@utah.edu, ph: (801) 581-8118

A. Professional Preparation

Utah State University	Mechanical Engineering	BS, 2003
University of Utah	Mechanical Engineering	MS, 2007
University of Utah	Mechanical Engineering	Ph.D., 2008

B. Appointments

2018-present	Associate Professor, Mechanical Engineering	University of Utah
2012-present	Adjunct Professor, Division of Physical Therapy	University of Utah
2013-present	Adjunct Professor, Family and Preventive Medicine	University of Utah
2012-2018	Assistant Professor, Mechanical Engineering	University of Utah
2012-2012	Fellowship: American Society of Safety Engineers	LMRIS, MA
2008-2012	Assistant Research Professor, Mech. Engineering	University of Utah

C. Products

(i) Most closely related

1. Foreman, K. B., Wilson, C., Dibble, L. E., & **Merryweather, A. S.** (2019). Training Persons with Parkinson Disease using an Advanced CAVE Virtual Reality System. *The FASEB Journal*, 33(1_supplement), 335-4.
2. **Hejrati, B., Merryweather, A. S., & Abbott, J. J.** (2017). Generating Arm-swing Trajectories in Real-time Using a Data-driven Model for Gait Rehabilitation with Self-selected Speed. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, PP(99), 1-1. doi:10.1109/TNSRE.2017.2740060
3. Trkov, M., & **Merryweather, A. S.** (2018, August). Estimation of Lifting and Carrying Load During Manual Material Handling. In *Congress of the International Ergonomics Association* (pp. 153-161). Springer, Cham.
4. **Hejrati, B., Chesebrough, S., Foreman, K.B., Abbott, J.J., Merryweather, A.** (2016). Comprehensive Quantitative Investigation of Arm Swing during Walking at Various Speed and Surface Slope Conditions. *Human Movement Science*, 49, 104-115. doi:10.1016/j.humov.2016.06.001
5. Xu, H., Bloswick, D., & **Merryweather, A.** (2015). An improved OpenSim gait model with multiple degrees of freedom knee joint and knee ligaments. *Comput Methods Biomech Biomed Engin*, 18(11), 1217-1224. doi:10.1080/10255842.2014.889689

(ii) Other significant publications

1. Xu, H., Greenland, K., Bloswick, D., Zhao, J., & **Merryweather, A.** (2017a). Vacuum level effects on knee contact force for unilateral transtibial amputees with elevated vacuum suspension. *J Biomech*, 57, 110-116. doi:10.1016/j.jbiomech.2017.04.013
2. Garg A, Kapellusch JM, Hegmann KT, Thiese MS, **Merryweather AS**, Wang YC, Mallow EJ. The Strain Index and RLV for HAL: Risk of lateral epicondylitis in a prospective cohort. *Am J Ind Med* 2014;57(3):286-302. PMID 24243166.

3. Hang Xu, Andrew S **Merryweather**, Donald S Bloswick, "Joint loading, muscle co-contraction, ligament force and peak knee contact forces when walking on railroad ballast," *International Journal of Human Factors Modelling and Simulation*, 4 (2); 87-101, 2014/1/1
4. Christman, M, Morse, J, Wilson C, Godfrey,N, Doig A, Bloswick, D, **Merryweather, A.** Analysis of the Influence of Hospital Bed Height on Kinematic Parameters Associated with Patient Falls During Egress. *Procedia Manufacturing*, Volume 3, Pages 280–287, Oct 2015. doi:10.1016/j.promfg.2015.07.150
5. Xu, H., Wang, Y., Greenland, K., Bloswick, D., & **Merryweather, A.** (2015). The influence of deformation height on estimating the center of pressure during level and cross-slope walking on sand. *Gait Posture*, 42(2), 110-115. doi:10.1016/j.gaitpost.2015.04.015

D. Synergistic Activities

1. Editorial Board Member – "WORK: A journal of Prevention, Assessment & Rehabilitation". 2008-present
2. Professional memberships: President, American Society of Safety Engineers (ASSE) Student Section, 2005-2006, Member, American Society of Safety Engineers (ASSE) Utah Chapter, Member, American Society of Biomechanics (ASB), 2009 – present, Member, American Society of Agricultural and Biological Engineers (ASABE) 2011-present, Member, Human Factors and Ergonomics Society (HFES) 2012-present
3. Honors: National Institute of Occupational Safety and Health (NIOSH) Fellowship, 2004-2005, Workers Compensation Fund of Utah Safe Workplace Scholarship, 2004, 2005, ASSE Student Scholarship, 2006, 2nd Place Award-National Ergonomics Student Design Competition, 2008, University of Utah Teaching Award, 2011
4. Member of University of Utah Center on Aging – 2012-present
5. Undergraduate Research Scholar Mentor (UROP)