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ACADEMIC POSITIONS

2006 - 2012	Assistant Professor, Department of Health and Kinesiology, Purdue University
2012-	Associate Professor, Department of Health and Kinesiology, Purdue University
2007 -	Faculty Associate, Center for Aging and the Life Course, Purdue University
2000 - 2001	Adjunct Faculty, Department of Exercise Science, Becker College

EDUCATION

2006	Ph.D., Kinesiology *University of Massachusetts*, Amherst, MA
2000	M.S., Exercise Science *University of Massachusetts*, Amherst, MA
1995	B.S., Exercise Science *University of Massachusetts*, Amherst, MA

REFEREED ARTICLES

1. Chagdes, J.R., Rietdyk, S., Haddad, J.M., Zelaznik, H,N., Cinelli, M.E., Denomme, L., Powers, K., Raman, A. Limit cycle oscillations in standing human posture. *Journal of Biomechanics.* [accepted for publication 3/16]

2. Chagdes, J.R., Huber, J.E., White, M.D., Rietdyk, S., Zelaznik, H.N., Haddad, J.M. (2016). The relationship between intermittent limit cycles and postural instability associated with Parkinson's disease. *Journal of Sport and Health Science*, 5, 14-24.

3. Kim, H., Cai, F., Ryu, J.H., Haddad, J.M., & Zelaznik, H.N*. (2015). Tennis match time series do not exhibit long term correlations. International Journal of Sport Psychology,* 46, 545-545.

4. O'Brien, K.M., Zhang, J., Walley, P.R., Rhoads, J.F., Haddad, J.M., & Claxton, L.J. (2015). *A Model to Investigate the Mechanisms Underlying the Emergence and Development of Independent Sitting. Developmental Science,* 18, 622-634*.*

5. *Muir, B.C.*,* Rietdyk, S, & Haddad, J.M. (2014). Gait initiation: The first four steps in young adults, adults aged 65-79 years, and adults aged 80-91 years. *Gait & Posture*, 39, 490-494.

6. Chagdes, J.C., Rietdyk, S., Haddad, J.M., Zelaznik, H.N., Raman, A. (2013). Nonlinear dynamics of human postural stability on balance boards. *Journal of Biomechanics*, 46, 2593-2602.

7. Claxton, L.J., Haddad, J.M., Ponto, K., Ryu*, J.H., & Newcomer, S.C. (2013). Newly standing infants increase postural stability when performing a supra-postural task. *PLoS One* 8(8), e71288.

8. Haddad, J.M., Claxton, L.J., Melzer, D.K., Hamill, J., & Van Emmerik, R. (2013). Developmental changes in postural stability during the performance of a precision manual task. *Journal of Motor Learning and Development,* 1*,* 12-19.

9. Haddad, J.M., Rietdyk, S., Claxton, L.J., & Huber, J.E. (2013). Task dependent postural control throughout the lifespan. *Exercise and Sport Sciences Reviews, 41*(2), 123-132.

10. Haddad, J. M., Rietdyk, S., & Claxton, L. J. (2012). Exercise training to improve independence and quality of life in impaired individuals: A commentary on Li and Hondzinski's "Reversal of movement dysfunction due to peripheral neuropathy with exercise modalities". *Exercise and Sports Science Reviews*, 40, 117.

11. Claxton, L. J. Melzer, D. K. Ryu, J. H. & Haddad, J. M. (2012). The control of posture in newly standing infants is task dependent. *Journal of Experimental Child Psychology,* 113, 159-165.

12. Haddad, J. M., Rietdyk, S., & Claxton, L. J. (2012). Exercise training to improve independence and quality of life in impaired individuals: A commentary on Li and Hondzinski's "Reversal of movement dysfunction due to peripheral neuropathy with exercise modalities". *Exercise and Sports Science Reviews*, 40,117.

13. Claxton, L. J., Melzer, D., Ryu*, J. H., & Haddad, J. M. (2012). The control of posture is newly standing infants is task dependent. Journal *of Experimental Child Psychology*, in press.

14. Haddad, J. M., Claxton, L. J., Keen, R., Berthier, N. E., Riccio, G. E., Hamill, J., & Van Emmerik, R. E. A. (2012). Development of the coordination between posture and manual control. Journal of Experimental Child Psychology, 111, 286-298.

15. Wheat, J. S., Haddad, J. M., & Scaife, R. (2012). Between-day reliability of time-to-contact measures used to assess postural stability. Gait & Posture, 35, 345-347.

16. Haddad, J. M., Rietdyk, S., *Ryu*, J. H., Seaman*, J. M., Silver*, T. A.,* Kalish, J. A., & *Hughes*, C. M. L.* (2011). Postural asymmetries in response to holding evenly and unevenly distributed loads during self-selected stance. *Journal of Motor Behavior,* 43, 345-355.

17. Hughes*, C.M.L., Haddad, J.M., Franz, E.A., Zelaznik, H.N., & Ryu*, J.H. (2011). Physically coupling objects in a bimanual task alters kinematics but not end-state comfort. *Experimental Brain Research,* 211, 219-229.

18. Rhea*, C.K., Silver*, T.A., Hong, S.L., Ryu*, J.H., Studenka*, B.E., Hughes*, C.M.L., & Haddad, J.M. (2011). Noise and complexity in human postural control: Interpreting the different estimations of entropy, *PLoS One,* 6, e17696, 1-9.

19. Haddad, J.M., Chen, Y., & Keen, R. (2011). Children's search for hidden objects, *Journal of Experimental Child Psychology,* 109, 123-131.

20. Haddad, J.M., Ryu*, J.H., Seaman*, J.M. & Ponto, K. (2010). Time-to-contact measures capture modulations in posture that occur due to the precision demands of a manual task, *Gait & Posture*, 32, 592-596.

21. Rhea*, C.K., Rietdyk, S., & Haddad, J.M. (2010). Locomotor adaptation versus perception adaptation when stepping over an obstacle with a height Illusion. *PLoS One*, 5, e11544, 1-4

22. Haddad, J.M., Wheat, J., Snapp-Childs*, W., van Emmerik, R.E.A., & Hamill, J. (2010). The use of continuous relative phase to assess dynamic gait symmetry. *Journal of Applied Biomechanics, 26, 109-113.*

23. Chagdes*, J., Rietdyk, S., Haddad, J.M., Zelaznik, H., Raman, A., Rhea, C., & Silver, T. (2009). Multiple timescales in postural dynamics associated with vision and a secondary task are revealed by wavelet analysis. *Experimental Brain Research,* 197, 297-310.

24. Haddad, J. M., Van Emmerik, R. E. A., Wheat, J., & Hamill, J. (2008). Developmental changes in the dynamical structure of postural sway during a precision fitting task. *Experimental Brain Research*, 190, 431-441.
25. Hasson, C.J., Van Emmerik, R. E. A., Caldwell, G. E., Haddad, J. M., Gagnon, J. & Hamill, J. (2008). The Influence of Embedding Parameters and Noise in Center of Pressure Recurrence Quantification Analysis. *Gait & Posture,* 27, 416-422.

26. Haddad, J.M., Kloos, H., & Keen, R. (2008). Conflicting cues in a dynamic search task are reflected in children's eye movements and search errors. *Developmental Science,* 11, 504-515.

27. Morgante, J.D., Haddad, J.M. & Keen, R. (2008). Preschoolers' Oculomotor Behavior During their Observation of an Action Task. *Visual Cognition,* 16, 430-438.

28. Haddad, J.M., Gagnon, J., Hasson, C.J., van Emmerik, R.E.A., & Hamill, J. (2006). Evaluation of Time to Contact Measures for Assessing Postural Stability. *Journal of Applied Biomechanics,* 22, 155-161.

29. Haddad, J.M., van Emmerik, R.E.A., Whittlesey, S.N., & Hamill, J. (2006). Adaptations in interlimb and intralimb coordination to asymmetrical loading in human walking. *Gait & Posture*, 23, 429-434.

30. Kloos, H., Haddad, J.M., & Keen, R. (2006). Which cues are available to 24-month-olds? Evidence from point-of-gaze measures during search. *Infant Behavior & Development*, 29, 243-250.

31. Seay, J., Haddad, J.M., van Emmerik, R.E.A., & Hamill, J. (2006). Coordination variability around the walk to run transition during human locomotion, *Motor Control*, 10, 178-196.

32. Li, L., Haddad, J.M., & Hamill, J. (2005). Stability and variability may respond differently to changes in walking speed. *Human Movement Science*, 24, 257-267.

33. Van Emmerik, R.E.A., McDermott, W.M., van Wegen, E.E.H. & Haddad, J.M. (2005). Age-relate changes in upper body adaptation to walking speed in human locomotion. *Gait & Posture*, 22, 233-239.

34. Peters, B.T., Haddad, J.M., Heiderscheit, B.C., van Emmerik, R.E.A., & Hamill, J. (2003). Limitations in the use and interpretation of continuous relative phase. *Journal of Biomechanics*, 36, 271-274.

35. Hamill, J., Haddad, J.M., & McDermott, W.M. (2000). Issues in quantifying variability from a dynamical systems perspective. Journal of Applied Biomechanics, 16, 407-419.

BOOK CHAPTERS

Hamill, J., Haddad, J.M., Heiderscheit, B.C., van Emmerik, R.E.A., & Li, L. (2005). Clinical relevance of coordination variability. In K. Davids, S.J. Bennett & K.M. Newell (Eds.), *Variability in the Movement System: A Multi-Disciplinary Perspective (pp. 153-165).* Champaign, IL: Human Kinetics

INVITED CONFERENCE MANUSCRIPTS AND OTHER PUBLICATIONS

Hamill, J., Haddad, J. M., & van Emmerik, R. E. A. (2006). Overuse injuries in running: Do complex analyses help our understanding? In H. Schwameder, G. Strutzenburger, V. Fastenbauer, S. Lindinger, E. Mueller (eds). *Proceedings of XXIV International Symposium on Biomechanics in Sports* (pp. 27-32). Salzburg, Austria: University of Salzburg press.

Hamill, J., Haddad, J. M., & van Emmerik, R. E. A. (2005). Using coordination measures for movement analysis. In Q. Wang (Ed.), *Proceedings of XXIII International Symposium on Biomechanics in Sports* (pp. 33-38). Beijing, China: The Peoples Sports Press.

Hamill, J., & Haddad, J.M. (2002). The role of variability in the etiology of running injuries. *Proceedings of the 2002 Korean National University of Physical Education. International Symposium for New Trends in Sports Science and Physical Education, 21*, 107-118.

Hamill, J., Heiderscheit, B.C., van Emmerik, R.E.A., & Haddad, J.M. (2001). Lower extremity overuse injuries: dynamical systems perspectives. In H. Válková & Z. Hanelová (Eds.), *Movement and Health (pp. 21-26)*. Olomouc, Czechoslovakia: Palacký University.

GRANTS AND AWARDS

National Science Foundation (NSF): Nonlinear Dynamics and Bifurcations of Human Posture on Tunable Balance Boards. 6/1/13-5/31/16, PIs: Haddad, J.M., Rietdyk, S.R., & Raman, A.

Microsoft Software Engineering Innovation Foundation: A Microsoft Kinect-based training program to improve balance, mobility, and quality of life in patients with Parkinson's disease. 6/1/14-5/31/15, PIs: Haddad, J.M., & Huber, J.E.

ICTSI NIH/NCRR Grant Number UL1TR001108: Toward the Development of An Integrated Balance and Cognitive Training Paradigm to Improve Quality of Life and Reduce Falls in Individuals with Parkinson's disease. 6/1/2014-1/1/2016.

Purdue University Research Foundation: Relationship between balance, cognition and manual control in older adults. 9/1/2011 – 8/31/2012.

Purdue University Research Foundation: The integration between balance, cognition, & manual control in aged populations. 9/1/2010 – 8/31/2011.

Purdue University Research Foundation: The effects of aging on the integration between balance and manual control. 8/1/2009 – 7/31/2010.

Purdue University Research Incentive Grant: The interaction of posture and manual control in children of various ages. Spring 2007.

Purdue Research Foundation, Summer Faculty Grant: Can thinking be hazardous to your health? The effects of cognition and aging on postural stability$7,000.

Purdue University Research incentive grant: Changes in dynamic postural stability between young and middle-aged adults. Fall 2006.

University of Massachusetts Graduate Student Fellowship. Competitive merit based scholarship awarded by the University Graduate School, 2004.

National Institute of Health, National Institute of Neurological Disorders and Stroke (NINDS), Grant Number: 1-F31NS050930-01. Project Title: The developmental integration of posture and manual control, 2005, NRSA fellowship.

INVITED PRESENTATIONS

Haddad, J. M. (2015, October). Postural adaptations across the life-span to changing task constraints. Department of Kinesiology, Michigan State University.

Haddad, J. M. (2015, May). Postural adaptations to changing task constraints across the life-span. Department of Psychology, Center for the Ecological Study of Perception and Action, University of Connecticut.

Haddad, JM. (2013, September). Postural adaptations to changing task constraints. Cognition, Action, Perception Seminar, Department of Psychology, University of Cincinnati.

Haddad, JM, Rietdyk, S. Claxton, L.J. (2013, April). Task-dependent postural control throughout the life-span. Department of Psychology Seminar, Indiana University.

Haddad, J. M., & Huber, J. E., (2011, April). Balance and fall prevention in older adults and adults with Parkinson's disease. 2011 Indiana Joint National Public Health Conference, Indianapolis, Indiana.

Haddad, J. M., Ryu, J. H., Seaman, J. M., & Ponto, K. C. (2009, June). Assessment of postural stability throughout the human life-span. 2009 American College of Sports Medicine, Seattle, WA.

Haddad, J. M. (2008, June). Variability and coordination in movement disorders. Tutorial lecture at the 2008 American College of Sports Medicine conference, Indianapolis, IN.

Haddad, J. M. (2008, April). Predoctoral NIH fellowships. Fund Yourself: Grants, fellowships, and scholarships to aid your research and teaching (graduate student government). Purdue University.

Haddad, J. M. (2007, October). Can thinking lead to falls? The effects of cognition and aging on balance. Center for Aging and the Life Course Seminar. Purdue University.

Haddad, J. M. (2007, July). The effects of cognition and development on postural control. Symposium in honor of Rachel Keen's Retirement. University of Massachusetts.

Haddad, J. M. (2007, June). Grant Money: where is it and how do I get some of it? Preconference symposium at the 2007 meeting of the North American Society for the Psychology of Sport and

Physical Activity. San Diego, CA.

Haddad, J. M. (2007, May). Developmental changes in the structure of postural sway during a manual task. Department of Psychology, Perception Action Seminar. University of Cincinnati.

Haddad, J. M. (2007, April). Does it hurt to think? The interactions between posture and cognition. Department of Health and Kinesiology Colloquium. Purdue University.

Haddad, J. M. (2007, February). Three-year-olds' strategies in a dynamic search task. Developmental Psychology Seminar. Purdue University.

Hamill, J., Haddad, J. M., & van Emmerik, R. E. A. (2006, August). *Overuse injuries in running: Do complex analyses help our understanding?* Invited lecture at the International Society of Sports Biomechanics. Salzburg, Austria.

Haddad, J. M. (2005, October). Methods and strategies for obtaining a NIH predoctoral fellowship: My experiences. Department of Kinesiology Seminar. Louisiana State University, Baton Rouge, LA.

Haddad, J.M. (2005, October). The developmental integration between posture and goal directed behaviors. Department of Kinesiology, Motor Behavior Seminar. Louisiana State University, Baton Rouge, LA.

Hamill, J., Haddad, J.M., & van Emmerik, R.E.A. (2005, August). *Using coordination measures to assess movement*. Invited lecture at the International Society of Sports Biomechanics. Beijing, China.

Keen, R., & Haddad, J.M., (2005, April). *Toddlers' looking behavior to violations of solidity.* ESRC Symposium on Object Knowledge. Yale University, New Haven, CT.

Haddad*, J. M., Kloos, H. & Keen, R. (2003, November). Three-year-olds' strategies in a dynamic search task: The effects of conflicting visual cues. Department of Psychology, Developmental Psychology Seminar. Harvard University.

Haddad*, J. M., van Emmerik, R.E.A., & Hamill, J. (2002, October). The adaptability of interlimb coordination in human walking. Seminar. Korean National University of Physical Education.

Hamill, J., & Haddad, J.M. (2002, October). *The role of variability in the etiology of running injuries.* Invited presentation at the 2002 International symposium for new trends in sports science and physical education, Seoul, South Korea.

CONFERENCE PRESENTATIONS

Haddad*, J.M., Huber, J.E., Liddy, J. (October, 2015). Using repurposed gaming devices to administer a motor-cognitive training paradigm designed to improve balance and mobility in older adults with and without Parkinson's disease. *American Congress of Rehabilitative Medicine,* Dallas, TX, verbal presentation in symposium.

Cruise*, D., Rietdyk, S., Haddad, J.M., Zelaznik, H.N., Chagdes J.R., Liddy, J.J., Raman, A. (August, 2015), Principal component analysis of human balance on a tunable balance board. *American Society of Biomechanics,* Columbus, OH, poster presentation.

Chagdes*, J.R., Haddad, J.M., Rietdyk, S., Zelaznik, H.N., and Raman, A. "Understanding the role of time-delay on maintaining upright stance on rotational balance boards," *Proceedings of the ASME 2015 International Design Engineering Technical Conferences & Computer and Information in Engineering Conference*, Boston, MA, August 2015.

Cruise*, D., Chagdes, J.R., Liddy, J. J., Rietdyk, S., Haddad, J.M., Zelaznik, H.N., and Raman, *A.* (July, 2015). Analysis of upright human stability through the use of a novel balance board with variable torsional stiffness and time delay. *International Society of Posture and Gait Research*, Seville, Spain, verbal presentation.

Salsabili*, H., Haddad, J.M., Pajouhi, Z., Cai, F., Ryu, J.H., Liddy, J.J., & Zelaznik, H.N. (June, 2015). Does performing an imagined Fitts' law task share similar characteristics to actually performing the task? *North American Society for the Psychology of Sport and Physical Activity*, Portland, OR, poster presentation.

Liddy, J.J., Haddad, J.M., Huber, J.E., Rietdyk, S., Claxton, L.J., & Zelaznik, H.N. *Using the Microsoft Kinect to Assess Human Bimanual Coordination*. North American Society for the Psychology of Sport and Physical Activity 2015 Conference, Portland, OR (June 2015, verbal presentation).

Muir BC, Haddad JM, Rietdyk S, Van Emmerik REA (June, 2014).. Dynamic gait instability occurs at different time scales for young and older adults. World Congress of the International Society for Posture and Gait Research, Vancouver, Canada, International, poster.

Muir BC, Rietdyk S, Haddad JM, Heijnen MJH. (June, 2014). The effects of advancing age on adaptive gait: a comparison of adults aged 20-25 years, 65-79 years, and 80-91 years. World Congress of the International Society for Posture and Gait Research, Vancouver, Canada, International, poster.

Muir BC, Rietdyk S, Haddad JM, Van Emmerik REA. (July, 2014). Age-Related Changes in Foot Placement Variability when Approaching and Stepping Over an Obstacle. World Congress of Biomechanics WCB 2014, Boston, MA, Presentation selected as finalist in PhD level Student Paper Competition. International, podium.

Chagdes JR, Rietdyk S, Haddad JM, Zelaznik HN, Raman A, Denomme L, Cinelli M. (July, 2014). Limit cycles in standing human posture are an indicator of neuromuscular impairment. World Congress of Biomechanics Conference WCB 2014, Boston, MA, International.

Kim, H.E., Ryu, J.H., Cai, F., Haddad, J.M., & Zelaznik, H.N. (2013, June). Do opponents become a coordinated system, or struggle for stochastic control? National Association of Sport Psychology and Physical Activity (NASPSPA). New Orleans, Louisiana, International conference, poster.

Ryu, J.H., Haddad, J.M., Keough, L.C., & Kayser, E.L. (2013, June). Light touch improves performance of a goal-directed manual task. National Association of Sport Psychology and Physical Activity (NASPSPA). New Orleans, Louisiana, International conference, poster.

Cai, F., Haddad, J.M., Zelaznik, H.N., Ryu, J.H., (2013, June). Speed-accuracy trade-off in whole body voluntary movement during standing. National Association of Sport Psychology and Physical Activity (NASPSPA). New Orleans, Louisiana, International conference, podium.

Raffegeau, T., Rietdyk, S., Haddad, J. M., & Huber, J. (2013, June). The impact of extemporaneous speech on adaptive locomotion. National Association of Sport Psychology and Physical Activity (NASPSPA). New Orleans, Louisiana, International conference, podium.

Muir, B.C., Rietdyk, S., & Haddad, J.M., The transition period between initiation and steady state gait as a function of advancing age. (2013, May). 60th annual Meeting of the American College of Sports Medicine and 4th World Congress on Exercise is Medicine. Indianapolis, IN, National conference, thematic poster.

Raffegeau, T., Rietdyk, S., Haddad, J.M., & Huber, J.E. (2013, May). Gait and speech are interdependent in young healthy adults. 60th annual Meeting of the American College of Sports

Medicine and 4th World Congress on Exercise is Medicine. Indianapolis, IN, National conference, thematic poster.

Haddad, J. M., Rietdyk, S., & Ryu, J. H., (2012, June) The task-dependent modulation of posture in young adults; *North American Society for the Psychology of Sport and Physical Activity,* Honolulu, HI. International conference, podium.

Raffegeau, T. E., Seaman, J. M., Ryu, J. H., Muir, B., Haddad, J. M., & Rietdyk, S. (2012, June). Balance training to improve the performance of dual-task activities in older adults; *North American Society for the Psychology of Sport and Physical Activity,* Honolulu, HI. International conference, podium.

O'Brien, K., Rhoads, J., Haddad, J.M., & Claxton, L.J. (2012, June). A mathematical model to explore the mechanisms underlying the development of Independent sitting in infants. *North American Society for the Psychology of Sport and Physical Activity,* Honolulu, HI. International conference, podium.

Raffegeau, T. E., Karstetter, S., Ryu, J.H., & Haddad, J. M. (2012, June). Light touch may improve the integration between posture and manual control. *North American Society for the Psychology of Sport and Physical Activity,* Honolulu, HI. International conference, poster.

Claxton, L.J., Witt, J.K., Ryu, J.H., & Haddad, J.M., Ponto, K., & Newcomer, S. (2011, June). Anticipation in the dorsal stream. *North American Society for the Psychology of Sport and Physical Activity, Burlington, VT.* International conference, poster.

Claxton, L.J. Haddad, J.M., Ryu, J.H., Ponto, K., & Newcomer, S. (2011, June). Newly standing infants exhibit more complex center of pressure patterns when engaging in a supra-postural task. *North American Society for the Psychology of Sport and Physical Activity, Burlington, VT.* International conference, poster.

Claxton, L.J. Haddad, J.M., Ponto, K., Ryu, J.H., & Newcomer, S. (2011, April). Look I can Stand: The Balance of Newly Standing Infants may be Better Than it Appears. *Society for Research in Child Development,* Montreal, Quebec, International conference, poster.

Francis, E. J., Saletta, M., Huber, J.E., Darling, M. & Haddad, J.M. (2011, January). Effects of age, Parkinson's disease, syntactic complexity, and balance on sentence production. *Linguistics Society of America,* Pittsburgh, PA, International conference, poster.

Muir, B.C., Rietdyk, S., Haddad, J.M., & Seaman, J.M. (2010, June). Improving gait characteristics in older adults: The effect of Biodex Balance System SD versus wobble board balance training. *Canadian Society of Biomechanics*, Kingston, ON, International conference, podium.

Haddad, J. M., Van Emmerik, R.E.A., & Hamill, J. (2010, June). Recurrence quantification analysis reveals developmental changes in the time-dependent structure of postural sway during a precision fitting task. *North American Society for the Psychology of Sport and Physical Activity,* Tucson, AZ, International conference, podium talk in the "Recurrence Quantification Analysis: Overview and applications of a nonlinear analysis for human behavior dynamics" symposium.

Hughes, C.M. Zelaznik, H.N., Haddad, J.M., & Gibson, A. (2010, June). Interlimb coupling during cooperative bimanual actions when objects are physically connected. *North American Society for the Psychology of Sport and Physical Activity,* Tucson, AZ, International conference, podium.

Seaman, J.M., Haddad, J.M., Goffman, L., & Ryu, J.H. (2010, June). The development of ipsi- and contralateral hand foot coordination. *North American Society for the Psychology of Sport and Physical Activity,* Tucson, AZ, International conference, poster.

Claxton, L.J., Witt, J, Haddad, J.M., Ryu, J.H., Ponto, K.C. (2010, June). The dorsal stream anticipates future actions. North *American Society for the Psychology of Sport and Physical Activity,* Tucson, AZ, International conference, poster.

Rhea, C.K., Haddad, J.M. & Rietdyk, S. (2009, June). Control of adaptive gait: Effect of experience and light level on action and perception. *North American Society for the Psychology of Sport and Physical Activity,* Austin, TX, International conference, poster.

Hughes, C. M., Haddad, J.M., Franz, E.A., & Zelaznik, H.N. (2009, June). Effects of object coupling on bimanual end-state comfort: Interlimb dependency does not affect end-state comfort. *North American Society for the Psychology of Sport and Physical Activity,* Austin, TX, International conference, podium.

Seaman, J.M., Ponto, K.C., Keough, A., Ryu, J.H., & Haddad, J.M. (2009, August). *The interaction between posture and cognition during a manual fitting task.* 2009 Annual American Society of Biomechanics Conference. State College, PA, national conference, poster.

Haddad, J.M., Ryu, J.H., Seaman, J.M., & Ponto, K.C. (2009, June). *Assessment of Postural Stability throughout the human life-span.* Lecture given as part of the Gait and Postural Stability: Theory and Clinical Applications symposium at the 2009 American College of Sports Medicine conference, Seattle, WA, national conference, podium.

Haddad, J.M., Chen, Y., & Keen, R. (2009, April). Preschoolers' Search for a Hidden Object. *Biennial Meeting of the Society for Research in Child Development*. Denver, CO, International Conference, national conference poster.

Silver, T., Rhea, C.K., Studenka, B.E., Ryu, J.H., Hughes, C.M.L., & Haddad, J.M. (2008, August). The influence of noise and time series length on two common measures of entropy. *North American Congress on Biomechanics*. Ann Arbor, MI, International Conference, poster.

Haddad, J.M., Snapp-Childs, W., Van Emmerik, R.E.A., & Davidson, M. (2008, August). Can thinking be hazardous to your balance? The effects of cognition on postural stability in older adults. *North American Congress on Biomechanics*, Ann Arbor, MI, International conference, podium.

Silver, T.A, Ryu, J.H., Haddad, J.M. & Rietdyk, S. (2008, June). Comparison of center of pressure in inverted and upright stance positions. *North American Society for the Psychology of Sport and Physical Activity,* Niagara Falls, Ontario, International conference, poster.

Silver, T.A, Rietdyk, S., Ryu, J.H., Haddad, J.M. & (2008, June). A comprehensive approach to the center of pressure differences between yoginis and controls. *Proceedings of the 55th annual American College of Sports Medicine*. Indianapolis, IN, National Conference, poster.

Snapp-Childs, W., Haddad, J.M., Davidson, M.C., Platero, M., & Van Emmerik, R.E.A. (2007, November). Postural Stability in Young Adults During Tasks of Varying Cognitive Difficulty. *Canadian Society for Psychomotor Learning and Sports Psychology*, Windsor, Ontario. Regional Confernece, poster.

Haddad, J.M., Van Emmerik, R.E.A. & Hamill, J. (2007, June). Developmental changes in trunk-arm coordination during a standing precision manual task. *North American Society for the Psychology of Sport and Physical Activity,* San Diego, CA, International conference, podium.

Haddad, J.M., Van Emmerik, R.E.A. & Hamill, J. (2007, July). Developmental changes in the dynamical structure of postural sway during a precision fitting task. *International Society of Biomechanics XXI congress*. Taipei, Taiwan, International Conference, podium.

Wheat, J., Scaife, R., Haddad, J.M. (2006, July). Reliability of Time-to-Contact measures to assess postural stability. *5th World Congress of Biomechanics*, Munich, Germany. International Conference, poster.

Haddad, J.M., Gagnon, J., Hasson*, C.J., Hamill, J., & van Emmerik, R.E.A. (2006, July). The use of Time-to-Contact measures to evaluate postural stability. *5th World Congress of Biomechanics*. Munich, Germany. International Conference, poster.

Seay, J., Haddad, J.M., Milner, C., McClay-Davis, I., & Hamill, J. (2005, November). Interlimb gait symmetry in female runners with a history of tibial stress fractures. *New England American College of Sports Medicine,* Providence, RI. Regional Conference, podium.

Claxton, L.J., Haddad, J.M., Keen, R. (2005, October). Motor planning in infants when reaching for objects at varying distances. *4th Biennial meeting of the Cognitive Development Society*. San Diego, CA. International Conference, poster.

Morgante, J.D., Haddad, J.M., Keen, R. (2005, October). How do you take your root beer float? The role of eye movements during the observation of means-end sequences. *4th Biennial meeting of the Cognitive Development Society*. San Diego, CA. International Conference, poster.

Fidler, A., Haddad, J.M. Gagnon, J., van Emmerik, R.E.A., & Hamill, J. (2005, August). Postural Control Strategies in Dancers and non-Dancers. *International Society of Sports Biomechanics*. Beijing, China. International Conference, podium.

Seay, J., Haddad, J.M., Milner, C.E., Davis, I.S., & Hamill, J. (2005, August). Dynamic Symmetry in Female Runners with a History of Tibial Stress Fractures. *20th biennial congress of the International Society of Biomechanics*. Cleveland, OH. International Conference, podium.

Hamill, J., Haddad, J.M., Milner, C.E., & Davis, I.S. (2005, August). Intralimb coordination in female runners with tibial stress fractures. *20th biennial congress of the International Society of Biomechanics.* Cleveland, OH. International Conference, podium.

Haddad, J.M., Claxton, L.J., & Keen, R. (2005, April). Reaching beyond arm's length: The development of coordination between the trunk and arm in one-year-old children. *Society for Research in Child Development (SRCD) meeting*. Atlanta, GA. International Conference, poster.

Haddad, J.M., Seay, J., van Emmerik, R.E.A., & Hamill, J. (2004, July). Symmetry in between limb coordination during gait transitions. *13th biennial congress of the Canadian Society of Biomechanics*, Halifax, Canada. National Conference, *poster*.

Seay, J., Haddad, J.M., van Emmerik, R.E.A., & Hamill, J. (2004, July). Coordination variability in the gait transition region with varying speed intervals. *13th biennial congress of the Canadian Society of Biomechanics*, Halifax, Canada. National Conference, *poster*.

Haddad, J.M., Kloos, H., & Keen, R. (2004, May). Three-year-olds' strategies in a dynamic search task: The effects of conflicting visual cues. *14th biennial International Conference on Infant Studies*. Chicago, IL. International Conference, poster.

Haddad, J.M., Kloos, H., & Keen, R. (2004, January). Cognitive strategies in a dynamic search task: The effects of congruent and conflicting cues. *New England Mini Conference of Infant Studies (NEMCIS),* Bedford, MA. Regional Conference, poster.

Van Emmerik, R.E.A., McDermott, W.J., & Haddad, J.M. (2003, August). Life-span changes in locomotion variability and dynamic stability. *4th International Conference on Progress in Motor Control*, Caen, France. International Conference, poster.

Haddad, J.M., Peters, B.T., Heiderscheit, B.C., van Emmerik, R.E.A., & Hamill, J. (2003, July). Continuous relative phase as a measure of coordination: Application issues. *19th Congress of the International Society of Biomechanics*, Dunedin, New Zealand. International Conference, podium.

Haddad, J.M., Van Emmerik, R.E.A., Hamill, J. (2003, March). Adaptability of interlimb coordination in human walking. *6th Annual Research Day, School of Public Health and Health Sciences,* University of Massachusetts, Amherst, MA. Regional Conference, poster.

Haddad, J.M., Kloos, H., DeMarte, J., & Keen, R. (2003, January). The use of eye-tracking technology in examining real-object looking behavior. *New England Mini Conference of Infant Studies (NEMCIS),* Worcester, MA. Regional Conference, poster.

Kloos, H., DeMarte, J., Haddad, J.M., & Keen, R. (2003, January). Which cues are relevant? Toddlers' eye- movements in a search task. *New England Mini Conference of Infant Studies (NEMCIS),* Worcester, MA. Regional Conference, poster.

Haddad, J.M., Peters, B.T., Heiderscheit, B.C., van Emmerik, R.E.A., & Hamill, J. (2002, August). Limitations in the use and interpretation of continuous relative phase. *3rd World Congress of Biomechanics,* Calgary, Canada. International Conference, poster.

McDermott, W.J., van Emmerik, R.E A., Haddad, J.M., van Wegen, E.E.H., & Baird, J.L., (2002, June). Age related changes in upper body adaptation to walking speed during locomotion. *North American Society for the Psychology of Sport and Physical Activity (NASPSPA),* Hunt Valley, MD. International Conference, poster.

Baird, J.L., Haddad, J.M., McDermott, W.J., van Wegen, E.E.H., & van Emmerik, R.E.A. (2002, April). Age-related changes in trunk and pelvis coordination during locomotion. *7th Annual Meeting of the Gait and Clinical Movement Analysis Society*, Chattanooga, TN. International Conference, poster.

Baird, J.L., Haddad, J.M., McDermott, W.J., van Wegen, E.E.H., & van Emmerik, R.E.A. (2002, February). Age-related changes in upper body coordination during locomotion. *Combined Sections Meeting of the American Physical Therapy Association,* Boston, MA. National Conference, poster.

Haddad, J.M., Van Emmerik, R.E.A., & Van Wegen, E.E.H. (2001, August). Interlimb asymmetries and postural orientation during locomotion. *3rd Annual Conference on Progress in Motor control*, Montreal, Canada. International Conference, poster.

Hamill, J., Heiderscheit, B.C., Van Emmerik, R.E.A., & Haddad, J.M. (2001, July). Joint Coupling Variability and Knee Pain During Running. *18th congress of the international Society of Biomechanics*, Zurich, Switzerland. International Conference, poster.

Haddad, J.M., van Emmerik, R.E.A. van Wegen, E.E.H. & Hamill, J. (2001, June). Adaptability of Interlimb Coordination. *11th International Conference on Perception and Action*, Storrs, CT. International Conference, poster.

Hamill, J., Haddad, J.M., & McDermott, W.M. (2000, June). Issues in quantifying variability from a dynamical systems perspective. *Annual Meeting of the American College of Sports Medicine*, Indianapolis, IN. National Conference, podium.

Haddad, J.M., van Emmerik, R.E.A., Hamill, J., & Whittlesey, S. (2000, June). Variability in interlimb and intralimb coordination during locomotion with increasing asymmetries. *North American Society for the Psychology of Sport and Physical Activity,* San Diego, CA. International Conference, podium.

Haddad, J.M., van Emmerik, R.E.A., Hamill, J. & Whittlesey, S.N. (2000, August). Coordination changes under lower leg asymmetries: Effects of leg load position. *11th Congress of the Canadian Society of Biomechanics*, Montreal, Canada. National Conference, poster.

Knight, C.A., Haddad, J.M., Sayers, S.P., and Kamen, G. (2000, March). Challenges in predicting delayed onset muscle soreness from the reducer - augmenter scale. *Annual Meeting of the*

American Alliance for Health, Physical Education, Recreation and Dance. Orlando, FL. National Conference, poster.

Haddad, J.M., & van Emmerik, R.E.A. (2000, March). Interlimb and intralimb coordination under asymmetrical leg loading in human locomotion. *Annual Meeting of the American Alliance for Health, Physical Education, Recreation and Dance*, Orlando, FL. National Conference, poster.

Haddad, J.M., Heiderscheit, B.C., Peters, B.T., van Emmerik, R.E.A., & Hamill, J. (1999, August). Normalization methods to calculate relative phase. *17th International Society of Biomechanics*, Calgary, Canada. International Conference, poster.

Haddad, J.M., Van Emmerik, R.E.A., Hamill, J. & Whittlesey, S.N. (1999, April). Stability in human walking: Effects of load placement and magnitude. *2nd Annual Research Day, School of Public Health and Health Sciences, University of Massachusetts*, Amherst, MA. Regional Conference, poster.

Li, L., van Emmerik, R.E.A., van Wegen, E.E.H., Haddad, J.M., Caldwell, G.E. (1998, April). Variability assessment in walking and running within the gait transition region, *3rd Annual Gait and Clinical Movement Analysis Meeting*, San Diego, CA. International Conference, poster.

Van Wegen, E.E.H., van Emmerik, R.E.A., Li, L., Haddad, J.M. (1998, April). Inter-limb and intra-limb coordination in the gait transition region for walking and running, *3rd Annual Gait and Clinical Movement Analysis Meeting*, San Diego, CA. International Conference, poster.

van Wegen, E.E.H., van Emmerik, R.E.A., Li, L., & Haddad, J.M. (1998, June). Arm coordination dynamics in the walk to run transition region, *Annual meeting of the American College of Sports Medicine*, Orlando, FL. National Conference, poster.

Li, L., van Emmerik, R.E.A., van Wegen, E.E.H., Haddad, J.M., & Caldwell, G.E. (1998, June). Comparison of lower extremity coordination in the gait transition region. *Annual Meeting of the American College of Sports Medicine,* Orlando, FL. National Conference, poster.

COURSES TAUGHT

HK264 **Principles of Motor Learning, Development, and Biomechanics**
A course designed to introduce students to concepts and methods in the field of motor learning, development and biomechanics. The emphasis is on practical knowledge for individuals desiring to teach motor skills to children.

HK253 **Principles of Motor Development**
This course provides an introduction to motor development from a life-span perspective. Students learn how infants develop into children and adults that are capable of interacting with the world in a goal-directed manner. Specific emphasis is placed on how changes in physical growth, aging and CNS maturity influence motor performance. The decline of motor skills associated with advanced age is also discussed.

HK254 **Principles of Motor Learning and Development**
A course designed to introduce students to concepts and methods in the field of motor learning and development. The emphasis is on practical knowledge for individuals desiring to teach motor skills to children. Please note: this course was replaced by HK264 in the HK curriculum.

HK443 **Neuroscience of Movement**
An advanced undergraduate course covering the neuroscience behind the control, sensation and perception of human movement. The course is divided into five sections.

In the first section, students learn about the sensory systems involved with human movement. The second section covers the basic CNS building blocks underlying movement control and perception. In the third section, the control of balance and locomotion is the central topic. In the fourth section students learn about the brain functions involved in cognition. The final section of the class examines issues regarding learning, development and brain plasticity.

HK444 **Motor Function in older adults**
Students learn about the age-related declines in motor function. This is a service learning class where students must work two hours per week with an older population at a local continuing care retirement community.

HK590 **Research Methods in Movement Science**
Graduate class designed to teach students how to collect and analyse human movement data. The four main course objectives are as follows: 1) Become familiar with the types of data acquisition, reduction and analysis typically used to collect and analyze human movement data. 2) To gain an understanding of the problems and limitations encountered in the acquisition, reduction, analysis and interpretation of human movement data. 3) Learn how to program in Matlab to analyze Kinematic and kinetic data. 4) To interpret human motion from the perspectives of kinematics, anthropometrics, kinetics, energetics, and electromyography.

HK670 **Motor Variability**
Graduate class examining the meaning and nature of motor variability with a particular emphasis on the functional significance of variability in physiological systems. The course specifically discusses how a dynamical systems approach can yield insights into development and disease. The course is divided into two major sections. The first section examines the role of motor variability in motor learning, motor development, the biomechanics of injury, coordinative pattern change and movement adaptation. The second section of the course examines various non-linear techniques that have been used to assess the structure of movement patterns.

PROFESSIONAL ACTIVITIES

Editorial

Academic Editor for PloS One (2013 – present)