

MECHANICAL AND AEROSPACE ENGINEERING SEMINAR
University of Virginia Charlottesville

Measurement and Simulation of Musculotendon Mechanics During Human Movement

By

Darryl Thelen and Amy Silder
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When: Thursday October 25, 2007, 4PM

Where: MEC 341, Mechanical Engineering Building

Refreshments at 3:30PM in the MAE Faculty Lounge, MEC 305

ABSTRACT:

We will discuss the coupled use of motion analysis, dynamic simulation, and imaging to characterize musculotendon mechanics during human movement. Specific attention will be paid to how fundamental engineering principles can be utilized to enhance our understanding of muscle function, injury factors and rehabilitation mechanisms.

BIOS:

Darryl Thelen received the B.S. degree in mechanical engineering from Michigan State University in 1987 and the M.S.E. and Ph.D. degrees in mechanical engineering from the University of Michigan in 1988 and 1992, respectively. He has been on the faculty of the University of Wisconsin-Madison since 2002, where he is currently an Associate Professor in the Departments of Mechanical Engineering and Biomedical Engineering. His research interests include computational biomechanics, simulation and control of human locomotion and dynamic imaging of musculotendon mechanics, with applications in sports medicine, orthopedics and rehabilitation.

Amy Silder received a B.S degree in biosystems engineering from Michigan State University in 2003 and a M.S. in biomedical engineering from the University of Wisconsin in 2005. She was a 2005 recipient of the National Science Foundation pre-doctoral fellowship and is currently working on her PhD in biomedical engineering at the University of Wisconsin. Her research interests include gait mechanics, muscle injury and rehabilitation, and musculoskeletal imaging.