

# Department of Mathematics

## *Fall 2014 Colloquium Series*



### **“Models of Human Locomotion: Walking vs. Running”**

**Justus Ortega, Ph. D.  
Department of Kinesiology, HSU**

**Thursday, September 25, 2014**

**Behavioral and Social Sciences Building Room 204, 4 p.m.**

*Walking and running are two of the most common forms of locomotion used by humans. From the time we are children to late in life people walk... and even run. Over the past 50 years scientist have developed several models to explain both the mechanics and energetics of walking and running. In this talk, we will explore how the inverted pendulum model of walking has been used to understand the fundamental determinants of walking energetics and how the spring mass model has been used to understand how the body adjusts to barefoot running in order to maintain similar body mechanics.*

*Justus Ortega is an Associate Professor in the HSU Department of Kinesiology.*

***We invite you to the Pre-colloquium Tea on the third floor of the BSS  
building at 3:30 on Thursday.***