

Applied Mathematics Seminar



Dr. Samitha Rhodes – GVSU- Engineering

Friday, Nov 13 1-1:50pm

MAK A-2-610 (PCS) or [via zoom](#) (request password from ortizron at gvsu dot edu)

Neural Correlates of Stability and Balance – Quantifying the Brain-Muscle Connection

Abstract: Maintaining an upright posture is a complex and dynamic process requiring continuous coordination between the brain and muscles. The central nervous system integrates sensory input to regulate muscle activation, ensuring stability and balance. Using tools from spectral analysis and information theory - mathematical indices of coherence and entropy - applied to electromyographic (EMG) signals recorded from lower-leg muscles, we explore how neural connectivity influences postural control to assess the brain's role in maintaining balance.



More info: <http://bit.ly/applied-math-seminar>

****Hosted by the Mathematics Department, GVSU**