College of Liberal Arts and Sciences

Faculty Research Colloquium

November 20, 2020

Via Zoom

Presentations begin at 3:00pm.

**Erik Nordman** (Biology)“The Uncommon Knowledge of Elinor Ostrom: Essential Lessons for Collective Action."

Garrett Hardin’s “Tragedy of the Commons” idea has dominated environmental management for over 50 years. Hardin assumed people were doomed to over use common-pool resources like fisheries and forests. Only top-down government regulations or privatization and markets could prevent people from ruining their shared resources. Elinor Ostrom, however, showed that these were not the only options. Ostrom found hundreds of cases were community members collaborated to sustain their shared resources. They set boundaries, established rules, and doled out punishments – all without government intervention or privatization. People were not doomed to overuse their resources. Ostrom won the 2009 Nobel Prize in Economics – the first woman to do so – but her ideas are still overshadowed by Hardin’s neat, but incomplete, idea. During my 2019-20 sabbatical as a Visiting Scholar at Indiana University’s Ostrom Workshop, I wrote a book about Ostrom’s groundbreaking work*. The Uncommon Knowledge of Elinor Ostrom* introduces her ideas to a broad audience. I trace the evolution of her ideas from her graduate student days studying Los Angeles groundwater users to emerging applications like commons in space and the digital world. The book features photographs from my collaborator, Jason Reblando. Ostrom’s message of shared collective action is more relevant than ever for solving today’s most pressing environmental problems.

**Ross Sherman and Brian Hatzel** (Movement Science) “Use of Whole-Body Segmental Bioimpedance Analysis to Detect Soft Tissue Injury in Collegiate Athletes”

Soft tissue injury assessment has historically relied on clinical evaluation. An assessment of structural integrity, and patient reported symptoms linked to function has long been the standard for diagnosis. In order to enhance clinical outcomes and being objective in the progression and return to play (RTP) of soft tissue injury, an assessment of physiologic condition and processes should be added. Bioimpedance analysis (BIA) has the ability to provide necessary physiologic information related to inflammation and healing. Recent work has suggested single limb BIA is effective at determining the severity and monitoring the rehabilitation of muscle injuries in professional athletes. The purpose of this study is to assess the effectiveness of whole-body, segmental BIA to detect soft-tissue injuries in collegiate athletes. Measurements of resistance and reactance were taken in each appendicular limb when healthy (full participation in practice and games), at the time of injury, and weekly during rehabilitation. Comparisons were made against both the healthy time point and the non-involved, contralateral limb. Initial findings indicate that whole-body, segmental BIA can detect injuries in soft-tissues and with differing severity, and also has the resolution to track longitudinal changes during rehabilitation. The utilization of BIA to assess severity of soft tissue injury and monitor repair through rehabilitation progressions may lead to a historic paradigm shift in clinical management of soft tissue injuries.

**Kody Wallace** (Music, Theater and Dance) “The Role of Gesture in Perceptions of Expressivity and Technique in Solo Vocal Music.”

**Kody was obliged to postpone his presentation until January 28**

Future colloquia are scheduled for:

Thursday, Jan 28

Thursday, Feb 18

Thursday, March 18

If you would like to give a presentation at one of the five remaining colloquia, please send an email to stavesm@gvsu.edu with preferred dates and a tentative title for your presentation.