

UCCS Mathematics Department

Colloquium:

Cascade Feedback Linearization and Two-Legged Copepod Motion

Taylor Klotz

University of Hawai'i



Thursday, March 17th

12:15-1:30pm

OCSE B138 or via Zoom

Abstract: Control systems are ubiquitous in applications of the sciences and are natural objects of study in engineering. The focus of this talk will be the class of control systems known as explicitly integrable (EI). Such control systems, as the name suggests, allow for trajectories to be described by arbitrary functions and their derivatives without any quadrature. In the case that an EI system possesses symmetry, the explicit solution can be recovered through a geometric method called cascade feedback linearization. I'll present an overview of the method and theory and give a particular example modeling the motion of a Copepod Nauplii (a type of microscopic sea creature).

For more information or to register to attend via Zoom, scan the QR code with your phone.

