



## Department of Civil Engineering Seminar

# Locomotion inspired by worms, insects, and crabs

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**Friday September 13, 2019, 12:45-1:45PM @ Bingham 103**

**Lunch and discussion at 12:15PM at Bingham 102 (Vose Room)**

### Abstract

Robots that can traverse new terrain might enable new solutions to water supply infrastructure, power storage inspection, or environmental clean up. Animals are adept at locomotion through wide varieties of terrain, so they can provide a living model of locomotion that is otherwise challenging for state of the art robots. We show proof of concept worm robots which could someday be used to access confined spaces, an algorithm of how cockroaches use wall-following to explore unknown areas without a map, and preliminary work on understanding crab locomotion in surf-zones.

### About the speaker:



Kathryn Daltorio is a Case Western Reserve alumna (BS 2005, MS 2007, PhD 2013) and beginning her 3rd year as an assistant professor in the Mechanical and Aerospace Department at CWRU. She is a recipient of the ONR Young Investigator award, NDSEG fellowship, NSF GRFP fellowship, and AUW fellowship. She has been awarded best paper at ION plans and

has been part of the prize winning autonomous lawnmower team.