



Young-Hui Chang

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How Flamingos Stand on One Leg

And Other Reasons to Study Comparative Neuromechanics



Oct. 19, 2017, 7:30-8:30 PM

**Clary Theater, Bill Moore Student Success Center
225 North Ave NW, Atlanta, GA 30332**

Light refreshments served after the lecture

CREATING THE NEXT®

Visit a flamingo exhibit at any zoo and you are likely to hear a child ask, “Why do flamingos stand one leg?” Asking “why” a flamingo stands on one leg is a difficult and esoteric pursuit.

In contrast, trying to understand “how” a flamingo can stand on one leg is directly addressable through physiology, the study of life’s processes. Moreover, gaining knowledge about how a behavior works often leads to important insights on why it persists in nature.

Young-Hui Chang will discuss how neuromechanics helps distinguish biomechanical and neural mechanisms to inform our understanding of limb control. For example, the recent discovery of a passive biomechanical mechanism in flamingo legs explains how standing on one leg may actually require *less* effort than standing on two legs.

ABOUT THE SPEAKER

Young-Hui Chang studies how humans and other animals use their limbs to control movement. In addition to flamingos, he has worked with a variety of animals, including gibbons, vampire bats, elephants, penguins, and horses. Chang also strives to answer societal problems associated with movement control in people with debilitating conditions. In 2009, he received a National Science Foundation CAREER Award for his research related to locomotor compensation in persons with lower-limb amputation.

ABOUT FRONTIERS IN SCIENCE LECTURES

Lectures in this series are intended to inform, engage, and inspire students, faculty, staff, and the public on developments, breakthroughs, and topics of general interest in the sciences and mathematics. Lecturers tailor their talks for nonexpert audiences.