

Primitives and notions of modularity in spinal cord.

Abstract

Modular solutions to many motor tasks appear to be commonly adopted. Two partly competing accounts exist for such modularity. One views the modularity as simply the natural outcome of an optimal control organized on-line. The second views initial and persistent patterns of modularity as representing an optimization that is achieved on a evolutionary timescale. This modularity forms a 'wired in' set of bootstrap solutions, used to seed rapid motor development of common motions. In this view more refined control and novel skills are elaborated from, or layered over the evolutionarily predetermined bases, by either adding or substituting more fractionated controls. In my talk I will evaluate data from our lab on the structure and basis of modularity in lower vertebrates and rodents in relation to these issues.

Engineering Neuroscience & Health

Seminar Series

Presents:

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Monday
December 8, 2008
4:00 p.m.

Refreshments will be served 3– 4 p.m.

Locations:

Seminar is simultaneously presented

UPC: HNB 100 - LIVE
Hedco Neurosciences Building

UPC Campus Map/Directions:
<http://www.usc.edu/about/visit/upc/>

HSC: 147 - Video Conference
Center for the Health Professional

HSC Campus Map/Directions:
<http://www.usc.edu/about/visit/hsc/>

Biosketch



Dr. Simon Giszter is an Associate Professor in the Department of Neurobiology and Anatomy in the College of Medicine with a joint appointment in the School of Biomedical Engineering. He studies the organization and control of limb movement and body biomechanics in the spinal cord and motor cortex both before and after spinal injury.

Web Cast

<http://capture.usc.edu/college/Catalog/?cid=af180d48-ceff-42b9-a35c-eb199daed320>

Information about all seminars can be found at

<http://www-clmc.usc.edu/~heiko/ENH>