Research Topics

- Computational Neuroscience
- Sensorimotor learning
- Brain Machine Interface
- Dynamics of neuronal interactions in cortex

Bimanual coordination
Psychophysical research has provided interesting findings about the nature of bimanual coordination in humans.
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Book chapters
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Brain Machine Interface
This project aims at developing motor neural prostheses in a coordinated effort of experimental and theoretical approaches, combining psychophysical experiments on human subjects, neurophysiological recordings in behaving monkeys, advanced data analysis and modeling work. For details see metacomp.huj
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Dynamics of neuronal interactions in cortex
The notion that cortical function is mediated coherent firing in groups of neurons escorts scientific endeavors since James (1890) and Hebb (1949).
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Motor Cortex in Voluntary Movements


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Nano-electronic brain implants

The lab will provide experimental support to a inter-intuitions collaboration (Technion-the Israeli Institute of technology, Bar Ilan University and The Hebrew university) initiated by Dr. Ran Ginosar (http://www-ee.technion.ac.il/~ran/).

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Other publications


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Sensorimotor learning

During performance of guided movements, the brain has to transform sensory information (for example? location of a cup of coffee) into appropriate motor commands (reach and grasp movement towards the cup).

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It is now widely accepted that deciphering the enigma of the brain is the most challenging intellectual endeavor of the 21st century, "The Century of the Brain" - Join our quest and become a friend of ELSC.
Our Int'l Ph.D. program provides outstanding students with top-notch courses in computational neuroscience.

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The Building

The Jerusalem Brain Sciences Building will provide a state-of-the-art research and teaching facility for the Edmond and Lily Safra Center for Brain Sciences.

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