



Séminaires ISIR

Ehud Ahissar

Jeudi 18 Juillet à 11h00

Campus Jussieu, 4 place Jussieu, Paris
Salle de réunion H20

Titre : “Active touch and vision : perception via closed loops”

Abstracts:

I will present a hypothesis for closed-loop perception (CLP) that is mostly based on data collected from the vibrissal system. In a nutshell, the hypothesis suggests that perception of the external environment is a process in which the brain temporarily ‘grasps’ external objects and incorporates them in its motor-sensory-motor loops (MS-loops). Everyday perception of a given external object, CLP suggests, is the dynamic process of its inclusion in MS-loops, a process that converges towards a complete inclusion but practically never reaches that state. I will present experimental support from rats and humans and work in progress towards detailed models of the perceptual process in touch and vision, and will describe the implications of this hypothesis for sensory substitution and robotics.

Biography:

Ehud Ahissar: Trained as an electrical engineer, he became a neurophysiologist after a PhD at the Hebrew University on the mechanisms of neuronal plasticity. He is now the head of the Laboratory for the Study of Adaptive Perceptual Processing, at Weizmann Institute.

<http://www.weizmann.ac.il/neurobiology/labs/ahissar>