ELSC-ICNC Seminar: Omri Barak

January 5, 2012

On the topic of: Embracing disorder: making sense of complex population codes

ELSC & ICNC cordially invite you
to the lecture given by:

Omri Barak
Center for Theoretical Neuroscience, Department of Neuroscience, Columbia University.

On the topic of:
"Embracing disorder: making sense of complex population codes"

The lecture will be held on Thursday, January 5, 2012
at 17:00, at ELSC-ICNC: Silverman Bldg., 3rd Wing, 6th Floor, Edmond J. Safra Campus

Light refreshments at 16:45

Abstract:

What is the nature of neural representations? Many studies addressing this question searched for single neurons with easily interpretable activity profiles, even though all cognitive tasks require the joint activity of a large population of neurons. In this talk I highlight the "other" neurons, and show that when considered as a population these "disordered" neurons can support behavioral tasks - and are even a better substrate for flexible tasks than "ordered" neurons are. Using a combination of data analysis from the labs of Ranulfo Romo and Earl Miller with numerical simulations and analytical calculations I will try to make all of these notions and statements more rigorous and precise.
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