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**Lundi 20 Juin 2005**

Conférence Systèmes Dynamiques

16h30 – 17h15

*Oscillations and Neural Synchrony : What matters and how can we understand it ?*

The behavior of coupled neural oscillators has been subject to much recent theoretical and experimental analysis. We will start with the concepts of phase-resetting and show that underlying intrinsic properties of neurons determine the shape of phase resetting curves. We will demonstrate that the shapes of these curves interact with the temporal profiles of synapses to determine the modes of synchronization in networks of neural oscillators. We will illustrate some examples taken from olfaction and cerebral cortex.

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