

Hermann HAKEN

**Mardi 14 Juin 2005**

Conférence Systèmes Dynamiques

14h00 – 14h45

*Brain dynamics - A synergetic view*

The brain is treated as a self-organizing dynamical system that operates close to instabilities. Close to these situations the brain dynamics is governed by macroscopic quantities, the order parameters, which enslave the individual parts, i.e. the neurons. This research programme is elaborated on by a phenomenological approach to movement control and visual perception as well as by a microscopic approach starting from a pulse-coupled neural network leading to a dynamical system wandering from one quasi-attractor to another one. In this latter case attractors preformed by learning are closed by saturation of attention after a pattern has been recognized.

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