

CEA - Saclay 91191 Gif-sur-yvette Cedex
Service de Physique de l'Etat Condensé
SÉMINAIRE

Mercredi 19 Septembre 11h15

Orme des Merisiers SPEC Salle Itzykson, Bât.774

**Optical control of neuronal activity in awake
behaving animals**

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We are interested in understanding how neurons in the spinal cord are recruited during locomotion, and in particular how the spinal networks integrate dynamically sensory inputs during active locomotion. For this purpose, we developed light gated channels to manipulate neuronal activity in sensory neurons in vivo and observe the effect at the level of the circuit as well as the behavioural output. Our model of choice is a small transparent animal where light penetration enables to both image neuronal activity using fluorescent sensors and manipulate firing in specific neurons. We will show how we quantify the behavior of the animals and focus our initial work on testing the role of inhibition in the spinal circuits underlying locomotion.

A coffee break will be served at 11h00. The seminar will be given in English.

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