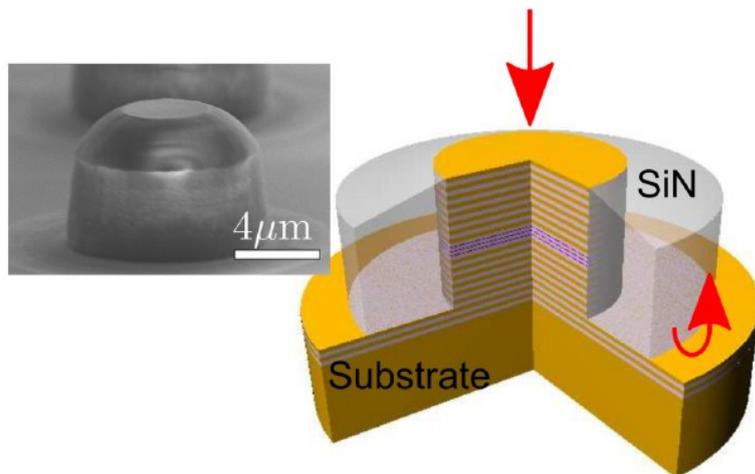


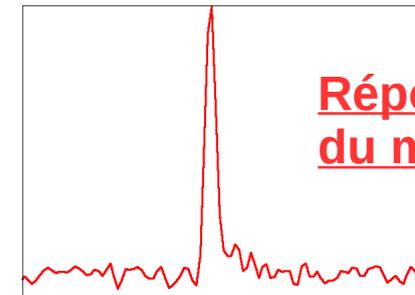
Doctorant en 3ème année: Foued SELMI
Encadrant : Sylvain BARBAY, Directeur de thèse : Robert KUSZELEWICZ

Dynamique neuromimétique dans un micropilier laser à absorbant saturable

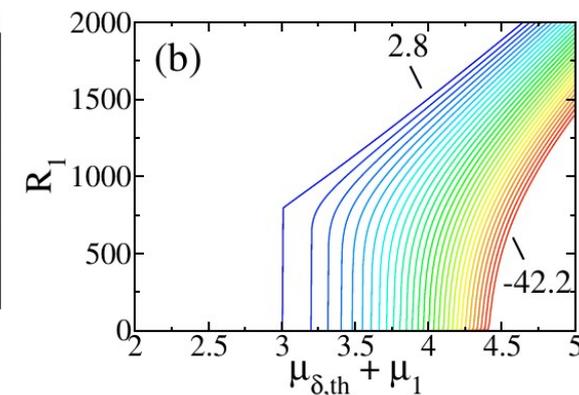
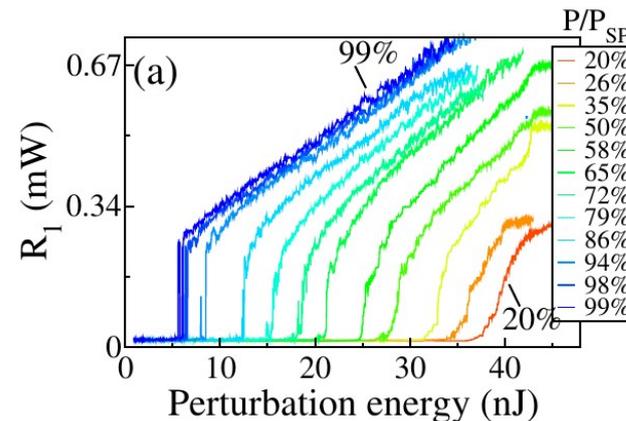
Les Rencontres Non Linéaires 18-19 Mars 2015
Université Paris Diderot-Paris 7



Micropilier laser à absorbant laser



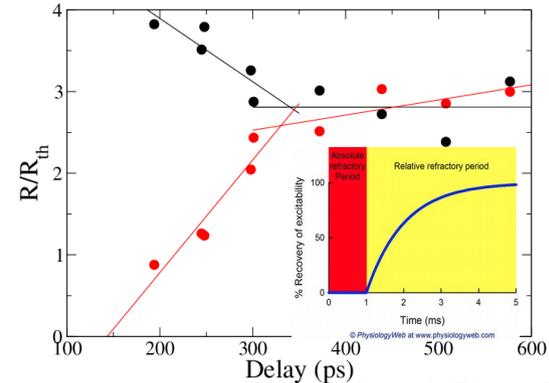
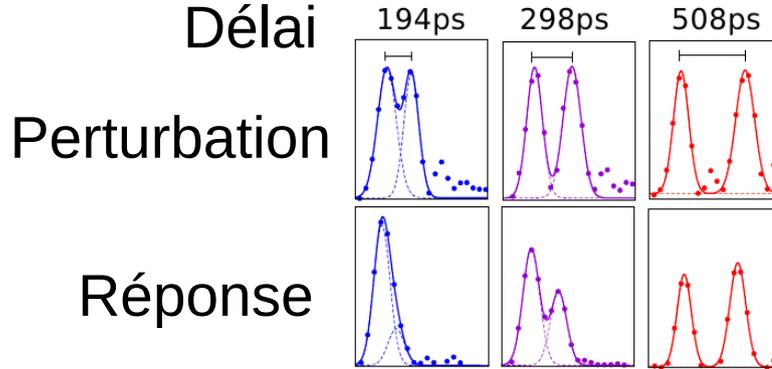
Réponse excitable
du micropilier 200ps



Courbes d'excitabilité

Résultats obtenus

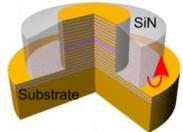
Périodes réfractaires relatives et absolues



F. Selmi et al, Phys. Rev. Lett. 112, 183902 (2014)

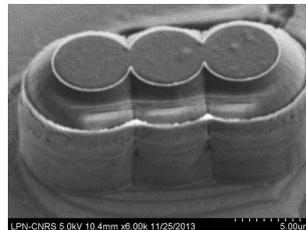


Synopsis: Semiconductor Lasers Get Nervy

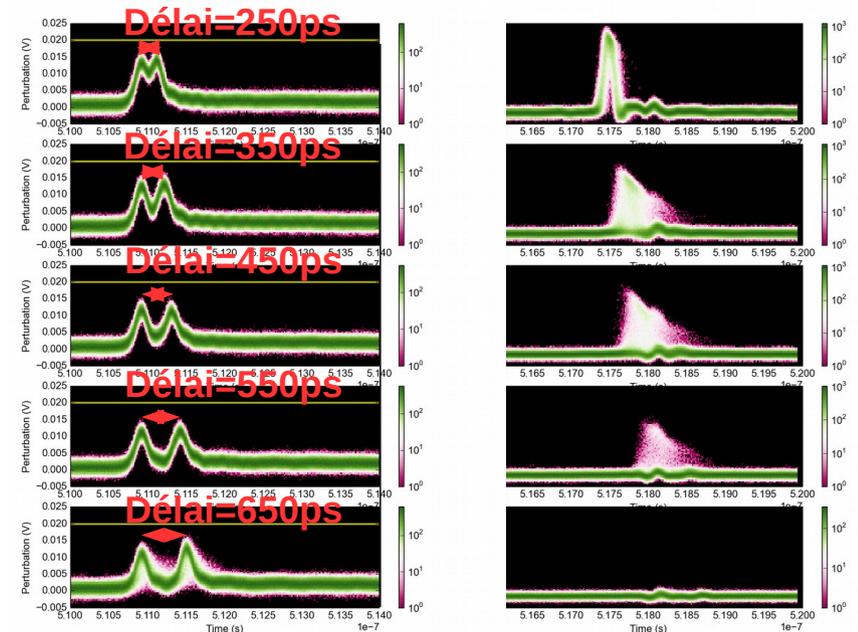


F. Selmi et al., Phys. Rev. Lett. (2014)

Relative Refractory Period in an Excitable Semiconductor Laser
F. Selmi, R. Braive, G. Beaudoin, I. Sagnes, R. Kuszelewicz, and S. Barbay
Phys. Rev. Lett. **112**, 183902 (2014)
Published May 7, 2014



Sommation temporelle



Perturbation

Réponse

Couplage de pulsieurs micropiliers pour des traitements neuromimétiques