



ESPCI  
Laboratoire PMMH  
10 rue Vauquelin, 75231 Paris Cedex 05



## Séminaire PMMH

*Bureau d'Études, Bâtiment L, 2<sup>ème</sup> étage*

*Vendredi 3 avril 2015, 11h00-12h00*

### **Dmitry Kolomensky**

McGill University

#### **Numerical modelling of insect flight**

Numerical simulation can provide important insights to the mechanics of animal locomotion. In this talk, I will present a numerical method for modeling flapping flight of insects. It is based on a Fourier pseudo-spectral method for solving the Navier-Stokes equations. Time-varying solid boundaries are modeled using the volume penalization method. Applications of this method will be presented, including such topics as the leading-edge vortex, fluid-structure interaction of flexible flapping foils, and the dynamics of takeoff.

Prochain séminaire : vendredi 10 avril

Programme des séminaires : [www.pmmh.espci.fr](http://www.pmmh.espci.fr), onglet *Séminaires PMMH*

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