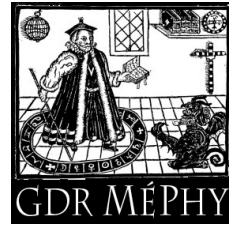


Insect-inspired physics

December 15th and 16th, 2020
(On-line meeting)



Tuesday December 15th pm

13:30-14:00 : *Welcome "e-coffee"*

14:00-14h10 : *Introduction*

14:10-14:30 : Florian Muijres

Aerodynamics of insect flight: added-mass forces in flapping insect wings

14:30-14:50 : Camille Le Roy

From ecology to aerodynamics: diversification of flap-gliding flight in an Amazonian butterfly genus

14:50-15:10 : Bérengère Abou

What we have learned from the rheology of insect secretion

15:10-15:30 : Giulio Facchini

Nest construction in arboreal termites

15:30-15:50 : *Break/Discussion*

15:50-16:10 : Pierre Moretto

Locomotion biomechanics in ants

16:10-16h30 : Alberto Fernandez-Nieves

Force chains in fire-ant columns: Janssen's experiment with active matter

16:30-16:50 : Amandine Lechantre

Dynamic of coagulation of bumblebee hemolymph

16:50-17:10 : Thomas Engels

A housefly model and the impact of wing damage

17:10-17:30 : *Discussion*

Wednesday December 16th am

09:00-09:20 : Violaine Llaurens

Convergence in sympatry: evolution of blue-banded wing pattern in Morpho butterflies

09:20-09:40 : Stéphane Viollet

Righting reflex and gravity perception in hoverflies

09:40-10:00 : Olivier Thomas

A fully flexible vibrating wing nano-drone: resonant concepts and results

10:00-10:20 : Simon Hadjaje
Drosophila wing deployment

10:20-10:40 : *Break/Discussion*

10:40-11:00 : Ariane Gayout
Presentation of project PHOeBUS: on the flight of butterflies in various gravities

11:00-11:20 : Antoine Cribellier
Escape flight performances of night-active malaria mosquitoes: the role of visual and airflow cues of a looming object

11:20-11:40 : Mourad Jaffar-Bandjee
Odor capture by pectinate antennae

11:40-12:00 : Dmitry Kolomenskiy
Bristled wings of small beetles

12:00-12:20 : *Discussion*

Web site of the meeting: blog.espci.fr/mephy/insect-inspired-physics-2020

Organizing committee: Ramiro Godoy-Diana, Jérôme Casas & Philippe Claudin

