

ESPCI

Laboratoire PMMH 10 rue Vauquelin, 75231 Paris Cedex 05



Séminaire PMMH

Salle de réunion du PMMH, Campus Jussieu, Bâtiment Cassan A, 1 er étage Vendredi 13 septembre 2019, 11h00-12h00

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From sails aerodynamics to the Lift Crisis (and other results on the lift generated by a highly curved plate)

Yacht sails show some peculiarities among aerodynamic systems. Rather flat sails are used to sail upwind, and the flow remains mostly attached. To sail downwind, highly cambered sails may be used where flow separation is significant. Some results will be shown on the flow around a spinnaker and the related fluid structure interaction, both from full-scale testing on the water and model-scale testing in a wind tunnel. To focus on the flow and make the system more simple to investigate, we tested in a water channel a 2D rigid highly cambered section (a curved plate) and found a few original behaviors of this high-lift and not-so-slender body.

