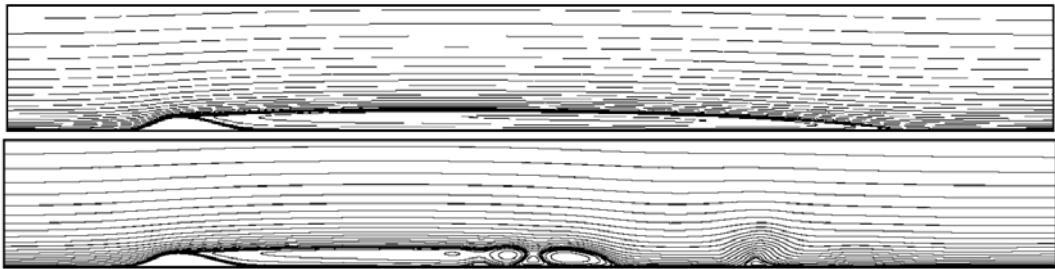


Master / Semester project proposal: Experimental study of a separated flow

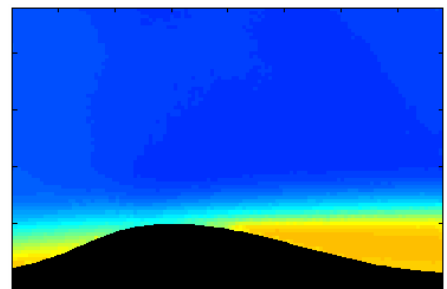
The aim of this project is to study experimentally the flow over a bump. This is a prototype of separated flows, which are encountered in many situations and associated to vehicle performance reduction, structure fatigue or collapse, etc. Our group is conducting research to understand the structure of these flows, their dynamics and instabilities, and to develop control strategies.



Streamlines at low / high speed (steady / unsteady flow), numerical simulation

In this project, the student will use the wind-tunnel facility and work on one or several of the following topics:

- Hot wire velocity measurements
- Pressure measurements
- PIV (particle image velocimetry)
- Flow visualization (for ex. with smoke)



Streamwise velocity measured by PIV

Supervision: Edouard Boujo – edouard.boujo@epfl.ch
François Gallaire – francois.gallaire@epfl.ch

Laboratory of Fluid Mechanics and Instability

