



## ACOUSTIQUE ET VIBRATIONS

### AERONAUTICS

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| Lecturers : 0.0 | TC : 0.0 | PW : 0.0 | Autonomy : 0.0 | Study : 0.0 | Project : 0.0 | Language : FR

### Objectives

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The purpose of the project is to evaluate the vibratory and acoustic disturbances related to the aircraft, by distinguishing the nuisances produced by the aircraft around the airports, that is to say the external noise, and the nuisances suffered by the aircraft in terms of internal noise or mechanical strength.

One of the objectives of this project is to obtain a dimensioning integrating several constraints related to the environment and / or safety, without neglecting the performance and robustness of the aircraft.

Keywords :

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### Programme

The proposed studies, which will be defined according to the sensitivity of the students, will use a strong interdisciplinarity in order to highlight the origin of the nuisances, and to examine realistic dimensioning solutions. Below are some project topics that have been realized in recent years:

- Impact studies near airports for take-off and landing.
- Optimization of traffic and trajectories to reduce the ground track of noise.
- Estimation of the noise and vibration levels induced by the flow in cruising flight for the internal noise.
- Location of surface acoustic sources from the knowledge of noise in the cabin.

### Learning outcomes

### Independent study

Objectifs :

Méthodes :

### Core texts

### Assessment

Participation, written report and defense