

# Vibroacoustics

## Course information

ECTS: 2.5	Common with the master in Acoustics	Course code:
Lecture: 20h	Tutorial classes: none	Practical work: none

Course coordinator : Frédéric Ablitzer

## Course Description

### Aim

The aim of the course is to acquire knowledge about vibroacoustics for plates and shells.

### Prerequisite

Course : [Continuous systems vibrations](#), [Acoustics I](#), [Acoustics II A](#)

### Contents

- \* Vibroacoustics planar structures: structures of infinite extension (bending waves in a plate acoustic waves in semi-infinite space, vibroacoustic coupling, radiation, acoustic transparency, infinite plate excited locally) finite structures (finite plate coupled sound power radiated), examples
- \* Vibroacoustics shells and cavities (dynamic models of thin structures, theory and operator for the Donnell cylindrical shell, natural waves in a pipe loaded by internal fluid ducts case membrane Korteweg wave), vibroacoustic cavities (problems inside and outside).

### Examination duration

2 hours

### Examination type

Written examination