

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