

Numerical vibroacoustics

Course information

ECTS: 3	Common with the master in Acoustics	Course code:
Lecture: none	Tutorial classes: none	Practical work: 36h

Course coordinator : Frédéric Ablitzer

External teacher coming from [R&D Team](#).

Course Description

Aim

The aim of this course is to practice numerical modelling of vibroacoustics in using the Finite Element and the Boundary Element Methods in industrial codes.

Prerequisite

Acoustics, Mechanics and vibrations, fundamentals of numerical methods such as Finite Element Method and Boundary Element Method

Contents

Simple models of acoustics in closed and opened systems by FEM and/or BEM approaches, Computation of vibrations modes for structures and acoustic modes for closed cavities by FEM, vibroacoustic coupling on the solid / fluid interface, Applications to more complex systems.

Examination duration

2 hours

Examination type

Practical work