

Introduction

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Schedule - lectures

8 lectures (Antonin Novak, $8 \times 1,5\text{h} = 12\text{h}$)

- Measurement system design in Python, sine measurements
- Multitone and MLS signals
- Synchronous Swept-Sine for nonlinear measurements
- Loudspeaker measurement (fitting method)
- Loudspeaker measurement (physics-based method)
- Eddy currents - linear effects
- Eddy currents - nonlinear effects
- Maxwell-Faraday equation in loudspeakers
(new lecture)

Schedule - works

4x 3h TP (Antonin Novak & Pierrick Lotton)

Works in pairs (2 students), each work with a different co-worker

- Loudspeaker parameters measurements
- Loudspeaker dynamics measurements
- Eddy currents measurements
- Signals for linear and nonlinear measurements

2x 3h TD (Mattia Cobiauchi, Antoine Adam)

- Bowers & Wilkins works (at Le Mans University)

Evaluation

Reports from 4 works (with Antonin Novak & Pierrick Lotton)

- 1 report per work (5 pages max.) written by 2 students
- 2-way evaluation
 - (+1 week) draft version → formative grade + feedback
 - (+1 week) final report → final grade
- (1/3 grade)

Written exam

- basic theory + practical Python coding (90 minutes)
- (1/3 grade)

Oral exam

- theory on one topic (15 minutes per person)
- (1/3 grade)