

UE Advanced signal Processing

 ECTS
3 credits

 Component
UFR PhITEM
(physique,
ingénierie, terre,
environnement,
mécanique)

 Semester
Automne

- > **Teaching language(s):** English
- > **Open to exchange students:** Yes
- > **Code d'export Apogée:** PAX9GEAA

Presentation

Description

The scope of this course is (1) to recap the fundamentals of numerical data processing for practical applications in geophysics and (2) to introduce advanced tools and methods, for ever more challenging geophysical observations and processing applications in Earth sciences. The class will mostly cover two main topics: projections (multi-dimensional data, beamforming, wavelet transform...), and random signals. Students will have to work and present a particular processing project chosen among a list of topics as practical applications (about 12h). For instance, students could work on deconvolution, implement a denoising tool, a high-resolution beamforming or a wavelet-based time-frequency decomposition.

Course parts

UE Advanced signal Processing - TD	Tutorials (TD)	3h
UE Advanced signal Processing - CM/TD	Lectures (CM) & Teaching Unit (UE)	12h
UE Advanced signal Processing - TP	Practical work (TP)	12h

Useful info



Campus

› Grenoble - University campus