UE Frontiers in seismic imaging (Noise + FWI)

ECTS
6 credits

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

Semester
Automne

> **Teaching language(s):** English

> **Open to exchange students:** Yes

> **Code d'export Apogée:** PAX9GEAB

Presentation

Description

The aim of the Frontiers in seismology module is to present two innovative methods in seismology: seismic tomography using full waveform inversion and the use of seismic ambient noise for tomography and monitoring the temporal evolution of the Earth's crust.

The module is based on lectures as well as practical work (matlab/python) on seismic noise correlations and waveform inversion. Thus, the part on seismic noise correlations includes 3 TP sessions and 12 hours of lectures, while the course on waveform inversions includes 18 hours of lectures including practical work.

Recommended prerequisites:
Basic knowledge in seismology, signal processing, programming (matlab and/or python)

Course parts

UE Frontiers in seismic imaging - TD	Tutorials (TD)	18h
UE Frontiers in seismic imaging - CM/TD	Lectures (CM) & Teaching Unit (UE)	15h
UE Frontiers in seismic imaging - TP	Practical work (TP)	9h

Non-contractual information.
Last update on 30 November 2023

Useful info

Campus

> Grenoble - University campus

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