

Variational methods applied to modelling



Level
Baccalaureate
+4



Component
UFR IM2AG
(informatique,
mathématiques
et
mathématiques
appliquées)



Semester
Printemps

- > **Teaching language(s):** English
- > **Open to exchange students:** Yes
- > **Code d'export Apogée:** GBX8AM11

Presentation

Description

Content

This course include practical sessions.

Objectives

The aim of this course is to get deep knowledge of PDE modelling and their numerical resolution, in particular using variational methods such as the Finite Elements method.

Course parts

Lectures	Lectures (CM)	16,5h
Tutorials	Tutorials (TD)	16,5h



Recommended prerequisites

notions of distribution theory, linear algebra, integral calculus, some notions of programming in some high level language, basic numerical analysis, as numerical integration of differential equations, basic notions on Hilbert spaces, usual partial differential operators (gradient, divergence, laplacian...)

Useful info

Contacts

Program director

Clement Jourdana

✉ Clement.Jourdana@univ-grenoble-alpes.fr

Campus

➤ [Grenoble - University campus](#)