



SC

MATH2421 Analyse convexe et méthodes variationnelles

[30h] 3 credits

This course is taught in the 1st semester

Teacher(s): Michel Willem
Language: french
Level: 2nd cycle course

Aims

The course constitutes an introduction to convex analysis and to the calculation of variations.

Main themes

- the direct method of calculus of variations, minimisation of multiple integrals, free and constrained problems, lack of compactness.
- Necessary conditions and sufficient conditions, Euler-Lagrange equations.
- Optimal solution symmetry, symmetry breaking, Noether theory.

Other credits in programs

MATH22/E	Deuxième licence en sciences mathématiques (Economie mathématique)	(3 credits)	Mandatory
MATH22/G	Deuxième licence en sciences mathématiques	(3 credits)	
MATH22/S	Deuxième licence en sciences mathématiques (Statistique)	(3 credits)	