MAT1261 Mathematical methods of classic mechanics 2

[22.5h+30h exercises] 5 credits

This course is taught in the 1st semester

Teacher(s): Jean Bricmont, Luc Haine
Language: French
Level: First cycle

Aims

This course follows the Mathematical methods of classical mechanics 1. Numerous modern mathematical theories owe their existence to problems of mechanics and only later did they acquire an independent existence. In this optic, an important part of the course is dedicated to the variational principles, to symmetries and conversation laws, as well as to the Hamiltonian formalism. These methods are applied to the study of the motion of the rigid body.

Main themes

Variational principals and Hamilton mechanics
Symmetry and conversation laws.
Dynamics of solid bodies.

Other credits in programs

MATH12BA	Deuxième année de bachelier en sciences mathématiques	(5 credits)	Mandatory
PHYS12BA	Deuxième année de bachelier en sciences physiques	(4 credits)	Mandatory
PHYS21/T	Première licence en sciences physiques (Physique de la terre, de l'espace et du climat)	(5 credits)	