Plasma instabilities

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Cursus
Physique

Sem. Obl.

Type

Language English
Credits 4
Session
Exam Multiple
Workload 120h
Hours 56
Lecture 36
Exercises 20
Number of positions

Frequency
Every 2 years

Remarque
Next time: Fall 2019

Summary
To complete the theoretical knowledge acquired before the graduate studies.

Content
1. Introduction to Magnetohydrodynamics (MHD)
2. MHD Equilibrium and Instabilities in Tokamak Plasmas
3. Kinetic Theory of Microinstabilities
4. Introduction to Non-linear Phenomena
5. Kinetic Theory of Macroscopic Instabilities

Learning Prerequisites

Recommended courses
Basic theoretical knowledge of plasma physics (2nd cycle EPFL or equivalent)