UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Introduction to Plasma Boundary in Fusion Devices

2122-86R-IPBFD

Title

Introduction to Plasma Boundary in Fusion Devices

Teacher(s)

Marco Cavedon

Language

English

Short description

Man-made plasmas almost always involve interaction with the solid-state, for example, electrodes or the walls of a containing vessel. In magnetically confined fusion devices, the physics of the boundary is of primary importance because it defines the rules for the power exhaust problem. The lastest is one of the most critical challenges for the realization of a commercial fusion power plant.

The lecture will provide an introduction to the physics of the plasma boundary in fusion devices. No pre-requites are required, except basic concepts of electromagnetism. The lecture will cover the following topics:

- **Magnetically confined fusion devices**

- **Transport and confinement**
- **The plasma boundary**
- **Physics of the scrape-off Layer and divertor**
- **A possible solutions to the exhaust problem**

CFU / Hours

2 CFU / 16 Hours

Teaching period

January 2022 - April 2022