

Introduction to accelerator physics

Lecturers

Pierre-Etienne LABEAU (Coordinator) and Cédric HERNALSTEENS

Course mnemonic

PHYS-H504

ECTS credits

3 credits

Language(s) of instruction

English

Course period

First term

Campus

Outside campus ULB

References, bibliography and recommended reading

"Introduction aux accélérateurs de particules", P.Germain (édité par D.Dekkers et D.Manglunki), CERN/89-07.

<https://cds.cern.ch/record/199445/files/CERN-89-07.pdf>

Other information

Place(s) of teaching

Outside campus ULB

Contact(s)

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Course content

Description of the various types of accelerators and of their use. Fundamental equations of the transverse and longitudinal motions of particles in circular accelerators. Recent examples of accelerators and visits to CERN installations. Tutorials make students familiar with the fundamental equations and concepts of accelerator physics.

Objectives (and/or specific learning outcomes)

Introduction to particle accelerators, on the site of the European Organisation for Nuclear research (CERN), Geneva, Switzerland.

Teaching method and learning activities

33% lectures - 33% exercises - 34% visits.

Evaluation method(s)

Other and Oral examination

Evaluation method(s) (additional information)

TP + oral.

Main language(s) of evaluation

English

Other language(s) of evaluation, if applicable

French

Programmes

Programmes proposing this course at the
Brussels School of Engineering

MA-IRPH | Master of science in Physical Engineering | finalité
Professional/unit 2