Nanophysics

Lecturers
Pierre GASPARD (Coordinator) and James LUTSKO

Course mnemonic
PHYS-F475

ECTS credits
5 credits

Language(s) of instruction
English

Course period
First term

Course content

Chapters selected among the following themes : Microscopy techniques ; atomic and molecular clusters ; magnetism and optical properties of nanoparticles ; fullerenes and carbon nanotubes ; self-assembly in colloidal phases : micelles, nanocrystals... ; nanostructures at interfaces ; nanostructured materials ; out-of-equilibrium nanosystems ; ultimate electronic conduction ; growth of nanostructures at interfaces ; oscillating reactions at the nanoscale ; proteins; biological nanomotors.

Objectives (and/or specific learning outcomes)

Introduction to the physics of nanometer-sized systems.

Pre-requisits and co-requisits

Co-requisites courses

PHYS-F442 | Physique statistique II | 5 crédits

Teaching method and learning activities

Lectures and homework

Other information

Contact(s)

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Evaluation method(s)

Other

Programmes

Programmes proposing this course at the faculty of Sciences

MA-PHYS | Master in Physics | finalité Research/unit 2 and finalité Teaching/unit 2

Programmes proposing this course at the Brussels School of Engineering

MS-NATE | Specialized Master in Nanotechnology | unit U