

Quantum Information Theory

Lecturer

Stefano PIRONIO (Coordinator)

Course mnemonic

PHYS-F509

ECTS credits

5 credits

Language(s) of instruction

English and French

Course period

First term

Campus

Plaine

Course content

Quantum computers and algorithms, quantum communications, quantum cryptography.

Objectives (and/or specific learning outcomes)

Initiation to quantum information.

Pre-requisites and co-requisites

Required knowledge and skills

Quantum mechanics, Dirac notation.

Teaching method and learning activities

black board course

References, bibliography and recommended reading

Quantum Computation and Quantum Information Nielsen and Chuang

Lecture Notes of Preskill <http://www.theory.caltech.edu/~preskill/ph229/>

Other information

Place(s) of teaching

Plaine

Contact(s)

S. Pironio (stefano.pironio@ulb.be)

Evaluation method(s)

Oral examination and Oral presentation

Main language(s) of evaluation

English and French

Programmes

Programmes proposing this course at the faculty of Sciences

MA-PHYS | **Master in Physics** | finalité Research/unit 1 and finalité Teaching/unit 1