Course guides
32069 - QCOM - Quantum Computation

Unit in charge: Barcelona School of Telecommunications Engineering
Teaching unit: 893 - ICFO - Institute of Photonic Sciences.
Degree: DOCTORAL DEGREE IN PHOTONICS (Syllabus 2007). (Optional subject).
MASTER'S DEGREE IN PHOTONICS (Syllabus 2009). (Optional subject).
ERASMUS MUNDUS MASTER'S DEGREE IN PHOTONICS ENGINEERING, NANOPHOTONICS AND BIOPHOTONICS (Syllabus 2010). (Optional subject).

Academic year: 2015 ECTS Credits: 2.5 Languages: English

LECTURER
Coordinating lecturer: J.I. LATORRE
Others: J. ESCHNER

TEACHING METHODOLOGY
Presencial teaching + activities

LEARNING OBJECTIVES OF THE SUBJECT
This course will provide an introduction to quantum computation, from the theoretical as well as the experimental side. The basic concepts of quantum logic and quantum algorithms will be explained, and how they can be implemented using atom-photon interaction in quantum optical systems.

CONTENTS

-Experimental concepts

-Theoretical concepts

GRADING SYSTEM
- Attendance
- Active participation, oral contributions, questions
- Delivery of exercises
- Individual presentation of a Quantum Computation topic

EXAMINATION RULES.
The usual in University teaching
BIBLIOGRAPHY

Basic:

Complementary: