



ICFO leads a CONSOLIDER project funded by the MEC

Prof. Eschner coordinates a nationwide project on Quantum Optical Information Technologies

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ICFO leads one of the seventeen projects funded by the new program CONSOLIDER-INGENIO 2010 put forward by the Ministry for Education and Science (MEC). This program aims at funding cutting-edge projects at the forefront of research in any area of science. Moreover, the program intends to foster collaboration among scientists based at different research institutions.

Professor Jürgen Eschner coordinates the consortium. The project Quantum Optical Information Technology is devoted to the development of methods and devices for future information technologies based on quantum optical systems. It combines experimental wit

theoretical research. The experimental part comprises photonic, atomic, and solid state quantum systems and thus covers the most important current approaches to quantum information processing. The theoretical part covers a wide range of aspects in close connection to the experiments, including the development of cryptographic protocols, schemes for creation and conservation of entanglement, and the simulation of quantum dynamics.

The consortium includes all the [ICFO quantum optics groups](#) (Prof. Acín, Prof. Eschner, Prof. Lewenstein, Prof. Mitchell, Prof. Torres), and joins efforts with teams from the [Instituto de Microelectrónica de Madrid](#) (IMM-CSIC), the [Universitat Autònoma de Barcelona](#), the [Universidad Autónoma de Madrid](#), the [Instituto de Telecomunicaciones y Aplicaciones Multimedia](#) (Universidad Politécnica de Valencia), and the [Universitat de Barcelona](#).