



Departamento de  
Física de la  
Materia Condensada  
Universidad Zaragoza

SEMINARIOS 2016

## ROMAIN QUIDANT

ICFO - The Institute of Photonic Sciences

### Nanophotonics meets Quantum Optics

Extensive research in Nano-optics over the last decade has made possible controlling optical fields on the nanometer scale. Such concentration of light, well below the limit of diffraction, opens plenty of new routes towards enhanced interaction with tiny amounts of matter down to the single molecule/atom level.

In this talk we will present our recent advances in enhanced light-matter interaction on the nanometer scale and their applications to quantum optics: controlled interaction of Nitrogen Vacancy (NV) centers with optical nanostructures and nano-optical trapping and nano-optomechanics.

*Romain Quidant, PhD in Physics in 2002 from the University of Dijon (France). In 2006, he was appointed junior Professor and leader of the Plasmon NanoOptics group at ICFO. In 2009, he became tenure Professor both at ICFO and ICREA. His research focuses on the study of the optical properties of metal nano-structures, known as nanoplasmonics, covering both fundamental and applied research. His research trajectory has been acknowledged by several national and international prizes : Fresnel prize from the European Physics Society (2009), City of Barcelona (2010), Fundació Príncep de Girona (2010), 2012 ICO prize from the International Commission for Optics and the 2014 Catalan research prize (young talent). In 2010 he received a Starting Grant (ERC) as well as two Proof-of-Concept ERC grants, in 2011 and 2015. In 2015, he was awarded a Consolidator ERC grant.*

Con la colaboración de:

**5 de Febrero (Viernes)**



LUGAR: SALA DE GRADOS DE LA  
FACULTAD DE CIENCIAS

HORA: 12:30