

# Researchers

## Fellows Gipuzkoa

### Dr. Rubén Esteban Llorente

NIST (National Institute of Standards and Technology), Gaithersburg, Maryland, USA  
11/03/2013–Present  
Quantum plasmonics.

### Dr. Maia Garcia Vergniory

Max Planck Institute of Microstructure Physics, Halle an der Saale, Germany  
01/06/2013–Present  
Electronic and magnetic properties in ordered and disordered topological insulators.

### Dr. Peter Koval

Asociación de Investigación Material Physics Center (MPC), Donostia-San Sebastián, Spain  
25/11/2013–Present  
Development of MBPT with localized orbitals.

### Dr. Dimas Garcia de Oteyza Feldermann

Centro de Física de Materiales CSIC-UPV/EHU, Donostia-San Sebastián  
01/05/2014–Present  
Physical chemistry phenomena in organic materials and organic-inorganic interfaces.

### Dr. Aitzol Garcia Etxarri

Stanford University, San Francisco, USA  
01/11/2014–Present  
Nanophotonics theory.

## Postdoctoral Positions

### Dr. Ilya Nechaev

Tomsk State University, Russia  
03/04/2012–Present

Electronic structure and many-body effects in layered semiconductors.

### Dr. Christos Tserkezis

University of Athens, Greece  
01/08/2012–Present

Optical properties of metamaterials.

### Dr. Noelia Beatriz Luque

Universidad Nacional de Córdoba, Argentina  
01/11/2012–31/12/2014

Ab-initio quantum chemistry studies of seleno-L-cysteine on coinage metal surfaces.

### Dr. Stepan Tsirkin

State University of Tomsk, Russia  
06/12/2012–Present

Magnetic proximity effect in the layered structures.

### Dr. Pablo Aguado Puente

Universidad de Cantabria, Santander, Spain  
01/01/2013–31/12/2014

Coupling of ferroic nanoscale films with interfacial two dimensional electron gases in oxides.

### Dr. Chang-Jin Lee

Boston College, USA  
01/04/2013–26/03/2014

Electronic excitations and many-body effects in solids, surfaces, and nanostructures.

### Dr. Fabienne Barroso Bujans

Centro de Física de Materiales, CSIC-UPV/EHU, Donostia-San Sebastián, Spain  
16/04/2013–Present

Aimed at finding the much-needed link between structure and properties of polymers confined at sub-nanometer dimensions at both fundamental and practical levels via understanding, tuning, and, ultimately, controlling the properties of polymer-based graphene nanostructured matter.

### Dr. Rubén González Moreno

Instituto de Ciencia de Materiales de Madrid, CSIC, Spain  
01/07/2013–31/12/2014

Fabrication of curved single crystals.

### Dr. María de Gracia Retamosa Hernández

Facultad de Química, UPV/EHU, Donostia-San Sebastián, Spain  
01/07/2013–Present

Remote structural effects in unnatural amino acids.

### Dr. Mikhail Otkrov

State University of Tomsk, Russia  
17/07/2013–Present

Topological insulators.

### Dr. Miren Iosune Arrastia Basalo

Facultad de Química, UPV/EHU, Donostia-San Sebastián, Spain  
01/08/2013–Present

Multiple spin state reactivity in Fe-containing complexes and enzymes.

### Dr. Ion Errea Lope

Institut de Minéralogie et de Physique de Milieux Condensés, Université Pierre et Marie Curie, Paris, France  
02/01–31/12/2014

Anharmonic free energies and phonon dispersions from the self-consistent harmonic approximation.

### Dr. Marcos Gonçalves de Menezes

Universidade Federal Do Rio de Janeiro, Brasil  
27/01–13/03/2014

Anomalous hall effect in metals and Chern insulators, and gyrotropic optical effects.

### Dr. Elena Formoso Estensoro

Università della Svizzera Italiana, Lugano, Switzerland  
01/02/2014–Present

Unveiling biochemical relevant structural conformations of the aluminum cation amyloid-beta peptide complex.

### Dr. Federica Lo Verso

Material Physics Center, MPC, Donostia-San Sebastián, Spain  
01/02/2014–Present

Structure and dynamics of complex materials based on polymers.

### Dr. Luis Alejandro Miccio

UPV/EHU, Donostia-San Sebastián, Spain  
17/07/2014–Present

Physical chemistry of curved surfaces.

### Dr. Yao Zhang

University of Science and Technology of China (USTC), Anhui, China  
21/08–05/10/2014

Plasmon-enhanced infrared spectroscopies for molecular characterization.

**Dr. Daniel Gosálbez Martínez**

Centro de Física de Materiales and Universidad del País Vasco, Donostia- San Sebastián, Spain  
15/09–31/12/2014

Weyl nodes in ferromagnetic bandstructures.

**Dr. Rémi Petuya**

Institut des Sciences Moléculaires, Université Bordeaux, France  
01/10/2014–Present

Characterization of structural and electronic properties of molecular overlayers on metal surfaces.

**Dr. Jens Brede**

Institute of Applied Physics and Interdisciplinary Nanoscience Center, Hamburg, Germany  
27/10/2014–Present

Physical chemical reactions at surfaces: physico-chemical aspects.

**Romain Dupuis**

CEMES/CNRS, Toulouse, France  
10/12/2014–Present

Cements and nanoadditions.

**Temporary Contract Positions****Dr. Irina Sklyadneva**

Russian Academy of Sciences, Tomsk, Russia  
14/05/2003–Present

Lattice dynamics and electron-phonon interaction in bulk materials and in ultrathin metal films. Electron-phonon interactions are of paramount importance for the correct description of the temperature dependence of quasiparticle dynamics. The goal of the present project is to study the electron-phonon coupling in ultrathin lead films, at bismuth and noble metal surfaces and in bismuth tellurohalides, layered polar semiconductors.

**Dr. Laura Fernández Gómez-Recuero**

Technische Universität Dresden (TU-Dresden), Germany  
01/01–31/08/2014

Preparation and characterization of self-assembled metallic nanostructures that reveal magnetic properties. Structural analysis by scanning tunneling microscopy. Magnetic characterization by magnetometry and magneto-optics.

**PhD Students****Elisabeth Goiri Little**

Facultad de Ciencias, UPV/EHU, Lejona, Spain  
01/07/2010–28/02/2014

Tunneling microscopy and spectroscopy of molecules on metals at 1 K.

**Alexander Correa Aristizabal**

Universidad del Valle, Cali, Colombia  
21/06/2011–Present

Studies at the nanoscale of interfaces for biosensor and solar cell applications.

**Anton Xose Brion Rios**

Universidad de Vigo, Spain  
06/02/2013–Present

Theoretical study on the molecular adsorption and self-organization on substrates of different nature.

**Dino Novko**

University of Zagreb, Croatia  
25/09/2013–Present

Non-adiabatic effects in the interaction of metal surfaces with atoms and small molecules.

**Aitzol Iturbe Beristain**

UPV/EHU, Donostia-San Sebastián, Spain  
01/10/2013–31/03/2014

Electron-phonon interaction in surfaces with strong spin-orbit interaction.

**Oihana Galparsoro Larraza**

Facultad de Química, UPV/EHU, Donostia-San Sebastián, Spain  
01/10/2013–Present

Phonon and electron excitations in diatom abstraction from metallic surfaces.

**Bernhard Kretz**

Gratz University of Technology, Gratz, Austria  
09/06/2014–Present

Electronic and transport properties of graphenic nanostructures.

**Tomas Neuman**

Brno University of Technology, Czech Republic  
01/09/2014–Present

Theory of scattering-type near-field microscopy and infrared spectroscopy.