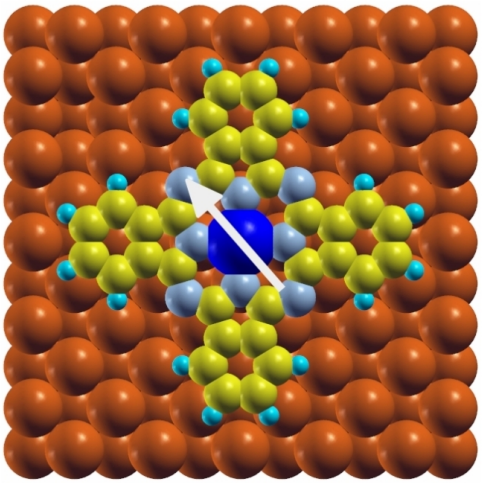
Theoretical Methods in Molecular Spintronics (TMspin)



17.Sep - 20.Sep 2018

Cod. Z07-18

Mod.:
Face-to-face

Edition
2018

Activity type
Workshop

Date
17.Sep - 20.Sep 2018

Location
Materials Physics Center (CSIC-UPV/EHU)

Languages
English

Academic Validity
40 hours

Organising Committee

Description

Magnetic molecules and atoms studied by scanning probe microscope experiments and molecular transistors represent ideal systems to address the very foundations of the quantum theory of magnetism. The proposed workshop will gather both physicists and chemists to question what electronic structure theory to use for such systems. Hence, the most recent developments in *ab-initio* methods will be presented with a special focus on those that could describe correlation effects, excitations and complex structural details on equal footing.

Organizing committee:

Andrea Droghetti, Universidad del País Vasco, Donostia-San Sebastian (chair)

Ivan Rungger, National Physical Laboratory, Teddington, UK

Tim Wehling, University of Bremen, Bremen, Germany

Objectives

The workshop aims at advancing electronic structure theory in order to accurately describe.

Magnetic properties of molecules in the gas phase, in particular spin state energetics and exchange coupling between several magnetic centres.

Magnetic properties of atoms and molecules on surfaces, in particular the Kondo effect and the surface mediated exchange-coupling between adsorbed atoms.

Finite-bias transport and magnetic excitations at the atomic scale.

Description of entangled states from first principle and application to quantum computation in magnetic molecules and atoms.

Course specific contributors

Directed by

Andrea Droghetti

Registration fees

REGISTRATION FEES	UNTIL 20-09-2018
INVITED SPEAKER / ORGANIZER	0 EUR
REGULAR FEE	350,00 EUR

Place

Materials Physics Center (CSIC-UPV/EHU)

Manuel de Lardizabal, 4. 20018 Donostia / San Sebastián

Gipuzkoa