

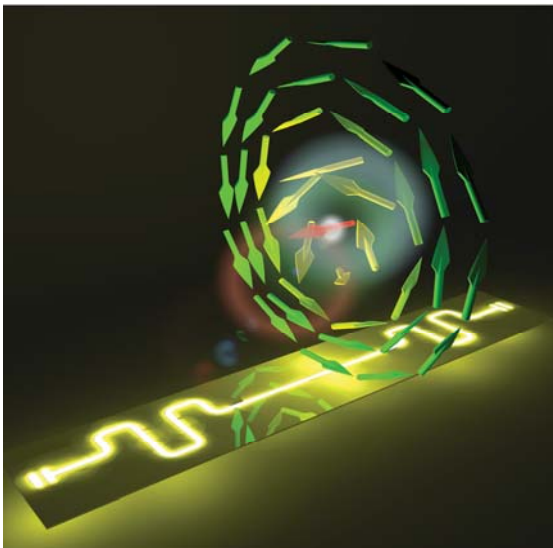


# PhD POSITION IN QUANTUM INFORMATION

The *Quantum Materials and Devices (Q-MAD)* group at the Institut of Material Science of Aragon (ICMA, Zaragoza) announces the opening of a **4 years PhD position** associated to the research project **RTI2018-096075-B-C21** “Coupling SUPERconducting devices to MAGnetic Nanomaterials: a platform for QUantum TEchnologies (SUPERMAN-QUTE)” founded by the Spanish Ministry of Science, Innovation and Universities (MICINN) under the supervision of María José Martínez and Fernando Luis Vitalla.

## Project:

The project aims at integrating topologically protected magnetic textures (**magnetic vortices, skyrmions...**) into superconducting resonators. The main goal is to achieve the so-called strong coupling regime between these magnetic excitations and individual photons residing in the cavity. This will allow coherently coupling distant magnetic textures or to transduce microwave photons to spin waves and vice versa in **quantum computing architectures**.



## Job description:

- Advanced micro- and nanolithography.
- Low temperature and microwave measurements.
- Numerical simulations.

## Qualifications:

- Master degree in engineering or physics.

## Desirable qualifications and skills:

- Good academic record
- Clean room or lab experience.
- Knowledge in Matlab or other programming languages.

## Contact:

Send your CV and motivation letter to [pemar@unizar.es](mailto:pemar@unizar.es) and [fluis@unizar.es](mailto:fluis@unizar.es)

