



VNIVERSIDAD
D SALAMANCA



PhD position

Modelling magnetization dynamics in piezoelectric/magnetic devices

Host: University of Salamanca

Start date: January-April 2020

Duration of the contract: 36 months

Gross salary: roughly 27 k€/year (may vary according to institution)

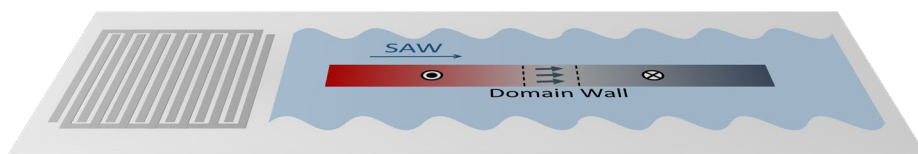
How to apply: On-line application via <https://magnefi.c2n.u-psud.fr/>

Deadline for application: November 15, 2019

Supervisor: Luis Lopez-Diaz and Eduardo Martinez (co-supervisor)

MagnEfi is an Innovative Training Network funded by the Marie Skłodowska-Curie Actions programme of the European Commission. It gathers together 11 research groups to provide enhanced training and education to young researchers on the topic of electric field effects on nanoscale magnetic structures and to make a scientific impact in terms of the design and performance of multi functional spintronics devices.

This PhD project is one the 15 offered within the network and it is focused on studying the effect of strain on the magnetic properties of different materials, nanostructures and devices. The work to be carried out is theoretical and computational, although it will be done in close collaboration with the network partners doing experimental work in this topic. A significant part of the effort will be devoted to the development and numerical implementation of a mesoscopic model that couples micromagnetics, elastodynamics and electrostatics self-consistently and it will also require extensive use of COMSOL Multiphysics. On the other hand, the project also entails investigating the effect of strain on the magnetic properties of a variety of materials and heterostructures at a more fundamental level, namely how exchange, DMI or anisotropy are affected by strain. For such study, a multiscale modelling approach will be followed.



More details about the network can be found in <https://magnefi.c2n.u-psud.fr/>

For more information about the research project contact **Luis Lopez-Diaz** (lld@usal.es)