

The Nanoscience Cooperative Research Center, CIC nanoGUNE, located in Donostia / San Sebastian, Basque Country (Spain), is currently looking for a

MASTER STUDENT

to work on

SYMMETRY MANIPULATION OF EXCHANGE INTERACTIONS IN ULTRATHIN MAGNETIC FILMS

NanoGUNE is a research center devoted to conducting world-class nanoscience research for a competitive growth of the Basque Country. NanoGUNE is a member of the Basque Research and Technology Alliance ([BRTA](#)) and is recognized by the Spanish Research Agency as a *María de Maeztu* Unit of Excellence.

The aim of the **project** is to design and fabricate nano-scale multilayer structures that allow for novel local and collective magnetic properties, while utilizing symmetry and topological material design strategies. In particular, designed structural symmetry modifications will be introduced into these materials on the nanometer length scale to change quantum mechanical exchange interactions and allow for effects that are symmetry prohibited in structurally uniform systems. Accordingly, the project also includes the structural and magnetic characterization of the associated complex quantum states and the thermodynamic properties that result from such designs.

The position is offered in the **Nanomagnetism Group**, led by **Andreas Berger** (a.berger@nanogune.eu) and co-led by **Paolo Vavassori** (p.vavassori@nanogune.eu) (. More information can be found at <https://www.nanogune.eu/en/research/groups/nanomagnetism>.

The position is expected to start in **01/09/2025** and for a total length of up to **10 months** (01/09/2025 - 30/06/2026).

Candidates should **apply** by completing the **form below** and attaching the following documents:

- a. A complete CV
- b. Academic Record and Cover Letter grouped in a single PDF file

The **deadline** for applications is **22/06/2025**.

NOTES:

- (i) *All applicants will receive an answer after the end of the selection process; but please note that due to the large number of submissions that are expected, we cannot provide individual feedback.*
- (ii) *Additional information about nanoGUNE's commitment towards [HR excellence in Research and Gender Equality](#) are available on our website.*
- (iii) *We encourage you to subscribe to our [HR mailing list](#) to receive information related to nanoGUNE's open positions and open calls for different training and talent attraction programs.*