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

POSTDOCTORAL RESEARCHER

to work on

Integration of altermagnets in spintronic devices

NanoGUNE is a research center devoted to conducting world-class nanoscience research for the 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 **Nanodevices group**, co-led by **Prof. Luis E. Hueso** and **Prof. Fèlix Casanova**, is currently composed of 30 members including senior and junior researchers. The group has extensive research facilities for fabrication and characterization of devices and several active research lines spanning from nanofabrication to 2D electronics and spin transport.

Altermagnets are redefining the basic classification of magnetic materials and studying them is fundamentally important because they enable new approaches to designing spintronic devices that use spin polarization without producing stray fields, thus merging the benefits of both ferromagnetic and antiferromagnetic systems. In addition, altermagnets provide a novel platform for investigating symmetry-protected electronic states, with promising applications in quantum technologies and energy-efficient information processing.

The candidate will **work** on the characterization and integration of altermagnetic materials in spintronic devices, in order to exploit their alternating spin splitting, leading to unique spin transport properties.

The **research** will include the characterization of altermagnetic thin films, their patterning into devices using advanced techniques such as e-beam lithography, and their electrical characterization. The **successful candidate** will have a PhD in Physics or a similar field and experience in the following skills:

- Nanofabrication (e-beam lithography, materials growth and characterization, etching)
- Electrical transport measurements
- Previous knowledge in magnetism, electronics and/or spintronics
- Proficiency in spoken and written English

Although not compulsory, the following points will be considered:

- Previous track record in publications at the highest level
- Self-motivated and a team player willing to coordinate research on a particular topic

We offer an international and competitive environment, state-of-the-art equipment, and the possibility to perform research at the highest level.

We promote teamwork in a diverse and inclusive environment and welcome all kinds of applicants regardless of age, disability, gender, nationality, race, religion, or sexual orientation.

The position is expected to start on 1 November 2025 and go on for up to 2 years in the Nanodevices group.

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

- A complete CV, including the name and contact details of at least three possible reviewers
- A cover letter

The **deadline** for application is **30 September 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.