

# PRE DOCTORAL RESEARCHER ON TRANSPORT PROPERTIES IN 2D HETEROSTRUCTURES

## Information



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.



**CIC** nanoGUNF



Main functions, requisites & benefits

### Main functions

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 the fabrication and characterization of devices and several active research lines spanning from nanofabrication to 2D electronics and spin transport. More information about the group can be found here.

Company

The candidate will work alongside an international consortium on the FantastiCOF project (Fabricating and Implementing Exotic Materials from Covalent Organic Frameworks).

The research will include fabrication, nanostructuring and electrical transport measurements of van der Waals heterostructures, including twisted bilayers.

The position is expected to start on 1 September 2024 and go on for up to 3 years in the Nanodevices group. The contract will be funded by the European Union's Horizon Europe research and innovation programme.

#### Requisites

The successful candidate will have a Master's Degree in Physics or a similar field and experience in the following skills: Proficiency in spoken and written English. Self-motivated and a team player. Although not compulsory, the following points will be considered: Nanofabrication (e-beam lithography, materials growth and characterization, etching). Low Temperature magnetotransport measurements. Previous knowledge of spintronics / molecular electronics.

#### **Benefits**

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.