

MSCA-IF Postdoctoral Fellowships

Applications are invited for a postdoctoral research position in experimental physics to study emerging functionalities in **novel 2D graphene-based nanoarchitectures**. The on-surface synthesis method our group recently demonstrated ([C. Moreno et al., Science 360, 199 \(2018\)](#)), recently extended for the synthesis of lateral heterostructures ([M. Tenorio et al., Adv. Mater. 34, 2110099 \(2022\)](#)) will be employed to explore the synthesis of hybrid lateral heterostructures combining graphene components with non-graphenoid molecular components of different functionalities.

The candidate will synthesize the hybrid graphene nanomaterials in ultra-high vacuum conditions and characterized them by combining scanning tunnelling microscopy and spectroscopy (STM/STS), and X-ray photoelectron spectroscopy (XPS). The optical and transport properties will be tested in three-terminal devices that will be fabricated by transferring the nanomaterials onto dielectric substrates.

Solid background in condensed matter physics and low dimensional electronic and magnetic phenomena, and experience in one or more of the above-mentioned techniques is required. Candidates must also possess good command of oral and written English. Interested candidates will be requested to apply to a Marie Skłodowska-Curie Actions - Individual Fellowship (MSCA- IF) grant.

Interested applicants may request further information and send their CV and a brief statement of interests to Prof. Aitor Mugarza at the e-mail addresses given below.

Contact info:

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