

## **CONTRATO PREDOCTORAL:**

### ***Modeling of magnons in magnetic 2D materials***

**Project:** A promising alternative to the use of electronics for transporting information is the use of other electron properties like the spin (spintronics) or spin-waves (magnon spintronics or magnonics). An interesting platform for development of novel electronics are 2D materials beyond graphene and in particular, magnetic 2D materials. The project aims to investigate the properties of magnons in 2D materials by developing a theoretical framework based in ab initio methods and many-body perturbation theory. In addition, the project will be carried out in collaboration with Dr. Davide Sangalli from the Istituto di struttura della materia (ISM) of the CNR in Rome.

**Duration:** 4 years of full-time contract. The position is part of the project *Magnons in magnetic 2D materials for a novel electronics* (2DMAGNONICS), funded by the Generalitat Valenciana.

**Qualifications:** Applicants should have a master's degree or in conditions of being admitted in the Doctoral School of the University of Valencia at the time of starting the contract. Studies in Physics, Chemistry or Materials Science, are preferred. Some background in solid-state physics, ab initio methods and software development will be positively valued.

**Application:** Applications must be sent to Dr. Alejandro Molina-Sánchez ([alejandro.molina@uv.es](mailto:alejandro.molina@uv.es)) and Dr. Davide Sangalli ([davide.sangalli@ism.cnr.it](mailto:davide.sangalli@ism.cnr.it)) with a CV and a brief statement of interest. For more information visit the group website (<http://www.uv.es/amosan3>).