



Nuclear and Astroparticle Physics Group – Universidad de Zaragoza  
**Research scholarships**  
**“Introduction to research in astroparticle physics”**

**Work environment:**

The host group at the University of Zaragoza has a leading role in the International Axion Observatory (IAXO) experiment, whose primary aim is the detection of axions emitted by the Sun. Axions are particles hypothesized to solve the strong-CP problem of the Standard Model of Particle Physics. They are also very motivated candidates to compose the missing Dark Matter of the Universe. IAXO will follow the *axion helioscope* concept, and will search for solar axions with unprecedented sensitivity.

The group is also active in other *rare event* searches in Astroparticle Physics, like the search for WIMP dark matter, neutrino physics or the development on new particle detectors. Some of the research is performed in the [Canfranc Underground Laboratory](#), located 160 km north of Zaragoza, as well as in international centers like CERN in Geneva, Switzerland, or DESY in Hamburg, Germany.

We offer paid research scholarships to physics students interested in getting “introduced to research” in the above mentioned field. The scholarships are addressed to students in the last year of, or just having finished, their university degree or master studies. The internship can be used to complete a project as part of the candidate’s studies (e.g. a master thesis) or as a stand-alone internship to get an experience in research and explore possible topics for a future PhD.

**Candidates:**

We seek top-level students of physics that are interested in pursuing a career in research. We will value excellent University qualifications, but also any relevant aspects that prove motivation and independence in building their education beyond the formal curriculum, like e.g. previous experience in collaborating with research groups. Priority in the selection will be given to candidates that are likely to continue with a PhD in particle physics.

**Positions:**

Two modalities of scholarship are available, differing in dedication to research activities. In the first one only a part-time dedication is foreseen, and it is suited to cases e.g. when the scholarship is carried out in parallel to other courses. In the second one the dedication to research activities is full-time, like e.g. in the case of the realization of a master thesis. Typical duration of the scholarship is 6 to 9 months, and takes place during the academic year, but other durations, dedication and start-end dates are possible to accommodate the scholarship to the academic constraints of the candidate. The salary is commensurate with the dedication of the scholarship and equivalent to Unizar “Novel Researcher” level (i.e. similar to first year PhD student level)



The Universidad de Zaragoza is committed to the “European Charter for Researchers” and the “Code of Conduct for the Recruitment of Researchers”, and has been recognized by the European Commission with the Human Resources Strategy for Researchers (HRS4R) award. <https://hrs4r.unizar.es/en/hrs4r/human-resources-strategy-researchers>

## **Application:**

Interested candidates should send their CV, including the university grade listing, a letter of motivation, and one letter of recommendation from a previous teacher or supervisor to: [iaxorecruitment@unizar.es](mailto:iaxorecruitment@unizar.es).

## **Deadline:**

The program is open indefinitely, provided funding is available. We accept applications at any time of the year, although selections will take place twice per year, in spring and autumn, depending on the constraints on dates from the applications received. About two studentships per year are expected to be granted, although additional ones are possible, funding permitting.

## **More info:**

More info on the type of research performed in our group can be found here:

<http://gifna.unizar.es/cast/>

<http://gifna.unizar.es/trex/>

Please contact [Igor.Irastorza@cern.ch](mailto:Igor.Irastorza@cern.ch) or [luzon@unizar.es](mailto:luzon@unizar.es) for consultation of the closest selection dates, or possibilities to adapt duration, dedication and dates of the scholarship, or any additional information.

**Project title:** “Towards the detection of the axion with the International Axion Observatory (IAXO+)”

**Funding:** European Research Council (ERC-ADG)

**Host institution:** Universidad de Zaragoza