

DIPC PhD STUDENT GRANTS

The Donostia International Physics Center DIPC is currently accepting applications for PhD students. This is a unique opportunity for highly motivated students, recently graduated from the University in physics or related fields, to develop a research career joining some of the DIPC high-profile research teams.

DIPC PhD grants last for just 12 months. An extension of the grant may be accepted just in some exceptional cases. DIPC PhD grants are intended to support the student during the first steps of his/her research career. Further financial aid to continue the PhD research project after this period should be obtained from other institutions. *

Interested candidates please send an updated CV including an academic transcript with the obtained marks, a brief statement of interest, and contact information to phd@dipc.org. Reference letters are welcome but not indispensable. The particular PhD position(s) to which the candidate is applying should be stated as well.

Applicants are advised to hold, or be in the final year of a master's degree in physics, chemistry or material science.

Next review of applications is scheduled for June 20th 2014. Applications will be evaluated by a Committee designed by the DIPC board on the basis of the following criteria (with point weights indicated in parentheses):

- CV of the candidate (60%)
- Adequacy of the candidate's scientific background to the project (20%)
- Statement of interest and reference letters (10%)
- Others: Diversity in gender, race, nationality, etc. (10%)

Evaluation results will be communicated to the candidates soon after. Positions will only be filled if qualified candidates are found.

* In the current call, the grant for the predoctoral position with reference number 2014/8 has a duration of three years.

PHD OPENINGS

- ***Structure and dynamics of silica filled rubber compounds***

Contact person: Dr. Gustavo Schwartz (schwartz@ehu.es) and Dr. Silvina Cervený (scervený@ehu.es). Reference: 2014/8

One predoctoral position within an industrial joint research project is available in the Polymers and Soft Matter Group at the Donostia international Physics Center in San Sebastian (Spain). The objective of the work is to systematically investigate the impact of blend composition, polymer functionalization and oil content, on bulk dynamics and filler distribution in silica-filled rubber compounds by means of different experimental techniques. The idea of this project is to investigate the dynamics of polymer chains in silica-filled rubber composites by applying new experimental concepts, which are based on combining dielectric spectroscopy (DS) techniques with an atomic force microscope (AFM) in order to measure the dielectric response on nano-meter scale.

The position is for three years and the start date is between September 1st and December 1st, 2014. Highly motivated candidates with a good background in polymer physics, molecular dynamics and experimental techniques are encouraged to apply for this position. The applicant must hold a Master in Physics, Materials Science or related areas. Experience with dielectric spectroscopy techniques is desirable as well as (although not excluding) basic knowledge of AFM techniques.

- ***Theory of scattering-type Near-field Microscopy and Infrared Spectroscopy***

Contact person: Dr. Javier Aizpurua. Reference: 2014/11

A predoctoral position is offered to work on the theory of scattering-type near-field microscopy and infrared spectroscopy of metallic nanostructures and anticorrosive nanomaterials to unravel the chemistry and structural properties of complex nanostructures by optical means. Background in Physics and particularly in Electrodynamics is highly desirable to develop this project. Knowledge on computational tools and experience in different platforms for Maxwell solvers will be valued. The candidate needs to be ready to interact with experimental groups of the network of basque technological centers in a collaborative effort in the context of the ETORTEK proposal 2014-2016.

The position is meant for one year and starting in September 1st 2014. The applicant must hold a Master in Physics, Materials Science or related areas for that time (1-9-14).