

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 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 position(s) to which the candidate is applying should be stated as well.

Next review of applications is scheduled for November 20th. 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.

- **Transport properties of superconducting weak links in the presence of a rf-field**

Post-doctoral position, contact person: Sebastian Bergeret (sebastian_bergeret@ehu.es). Reference:2009/15

In this project the candidate will focus on the study of the effect of a microwave field on the transport properties of a superconducting weak link. As it is well known, the magnitude of the Josephson current through a point contact can be understood by the occupation of the two Andreev levels. Thus, such a system can be regarded as the realization of a two-state quantum system. By applying an external electromagnetic field one can control the population of the levels and accordingly the current through the contact. The main objective of the project is the theoretical study of the transport properties of superconducting weak links in the presence of a microwave field within the framework of two-level quantum systems. The candidate should have a good background in quantum mechanics and basic knowledge of quantum field theory and superconductivity.