

DIPC VISITING SENIOR RESEARCHER

The Donostia International Physics Center DIPC is currently accepting applications for one full-time visiting senior researcher appointment.

Interested candidates please send an updated CV, a brief statement of interest, and contact information to senior@dipc.org. The particular position(s) to which the candidate is applying should be stated as well. Please be aware that the application will be evaluated only if it is submitted directly to the email address mentioned above (senior@dipc.org).

Next review of applications is scheduled for October 31st 2017. Applications must be received before this date and 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 (45%)
- Adequacy of the candidate's scientific background to the project (45%)
- 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.

The duration of the appointment will be 12 months.

The salary will be determined in accordance with the DIPC salary plan and the applicants' education and research experience.

JOB OPENINGS

- ***A role of electronic excitations in directing an electronic system to the superconducting instability.***

Contact person: V. M. Silkin (waxslavs@ehu.es). Reference: 2017/19.

The project should focus on the development of a theoretical model for the evaluation of the superconducting transition temperature, thermodynamics and transport properties of new superconducting materials taking into account dielectric function obtained by the first-principles density-functional methods. Recent detailed calculations of the dielectric properties of several materials revealed that their low-energy electronic excitation spectra differ strongly from those obtained within simple electron gas theories yet frequently assumed for description of characteristic parameters of electronic systems. The idea of the project is to split a calculated momentum and energy dependent dielectric response in such a way that would allow constructing a scheme for the first-principles calculations of the critical temperature of the superconducting transition at a level currently employed in the phonon-based Eliashberg formalism.