

EXTENSION OF APPLICATION DEADLINE: DECEMBER 12, 2021

POST-DOCTORAL RESEARCH POSITION IN THE SOUZA RESEARCH GROUP

Materials Physics Center (Donostia / San Sebastián)

The **Souza Research Group** at CFM is offering a postdoctoral position (1+1 years) starting in between December 2021 and Spring 2022 to work with Prof. Ivo Souza and Dr. Stepan Tsirkin on the development and application of Wannier-based electronic structure methods to study nonlinear magnetotransport phenomena, optical responses, and topological properties of materials. The position is connected with the development of the WannierBerri code (<http://wannier-berri.org>).

The positions will be funded by the IKUR strategy. IKUR is the Basque strategy promoted by the Education Department of the Basque Government to boost the Scientific Research in specific strategical areas and to position them at international level. The selected candidate will be hired by the Research Association MPC - Materials Physics Center.

The salary will be of 34.780,80€ during the first year before taxes.

The Souza Research Group at the Materials Physics Center uses theoretical and computational tools to study the properties of materials from first principles. Our work involves the development of novel theoretical formulations and algorithms, and their application to materials that are being studied experimentally. Current research topics in the group include the study of nonlinear optical and transport phenomena arising in crystals with broken inversion symmetry from the Berry-phase geometry of the electronic states. For more information, visit our web: <http://cfm.ehu.es/ivo/>

Candidates must hold a PhD degree in Physics, preferably in the field of computational materials science. Expertise in electronic structure calculations will be highly appreciated for this particular position, as well good programming skills. Besides, the following will be considered as advantages:

- 1) Experience with Wannier90 and/or WannierBerri as a user or contributor.
- 2) Knowledge of the internals of community DFT codes.
- 3) Familiarity with the Berry-phase aspects of electronic structure.

Suitable candidates can apply for this position sending by email to jobs.cfm@ehu.eus the following information **before 12 of December 2021** with the subject label "**Postdoc CFM - Wannier**":

- 1- An updated Curriculum Vitae, including a list of publications. (50%)
- 2- A presentation letter with declaration of interests (max. 1 page). (25%)
- 3- Two reference letters and/or contact email of two potential referees. (25%)

General enquiries or questions about this position should be submitted by email to: jobs.cfm@ehu.eus with the subject label "Postdoc CFM - Wannier" where "Postdoc CFM - Wannier" refers to the Job Offer Reference code you are interested in (thus, separate emails are required to apply for different job offers).