Postdoctoral Fellow in Quantum Computation and Simulation

The <u>Institute of Cosmos Sciences</u> of the <u>University of Barcelona</u> (ICCUB) is seeking a Postdoctoral Fellow in Quantum Computation and Simulation for its Unit of Excellence Maria de Maeztu postdoctoral positions. Find out more positions in related areas <u>here</u>.

The ICCUB is an interdisciplinary center with more than 60 long term scientists, 20 engineers and 80 postdoctoral researchers (55% international) and PhD students (30% international) offering an international and multicultural environment. The ICCUB also hosts a vibrant fundamental research program in cosmology, astrophysics and particle physics, with a strong technology unit supporting our participation in international collaborations in observational astronomy and experimental particle physics.

Job description

The candidates are expected to hold a PhD in physics, mathematics, computer science, or any related area.

A strong background in one or several of the following topics will be especially considered:

Quantum many-body theory, Quantum Simulation, Ultracold atomic gases, Tensor Networks, Quantum information inspired approaches to field and gauge theories, Quantum computation, Quantum Optics and Nanophotonics.

Faculty members of our group working in these areas include Maria Moreno-Cardoner, Muntsa Guilleumas, Sofyan Iblisdir, Bruno Julia-Diaz y Luca Tagliacozzo.

The priority lines of the Maria de Maeztu proposal can be found <u>here</u>. To know more about the research interests of the ICCUB, please follow this <u>link</u>.

Employment conditions:

Position is for two years renewable for a third year depending on performance and funding.

Gross annual salary will be in the range of 32 to 36 k€, with included <u>social security</u> and <u>public healthcare benefits</u>, covering spouse and children.

Position is expected to begin no later than the fall of 2021, although exceptions can be made in cases of maternity/paternity or other special circumstances.

Equal Employment Opportunity Statement

ICCUB offers and promotes a diverse and inclusive environment and welcomes applicants regardless of age, disability, gender, nationality, race, religion or sexual orientation (for additional information please see the Diversity, Equity and Inclusion Commission. Job seekers in need of a reasonable accommodation to complete the application process should call or email secretaria@icc.ub.edu with their request.

Application procedure:

Documents that will be required for your application are:

- Curriculum Vitae
- Research Description and Plan (maximum 6 pages)
- Three letters of recommendation
- URL to publications in a public database

All applications must be submitted online through this <u>link</u>. Inquiries about the application submission can be directed to Esther Pallares (<u>secretaria@icc.ub.edu</u>).

For inquiries about the scientific aspects, please contact Prof. Bruno Julià (bruno@fqa.ub.edu)

Deadline:

Applications should be uploaded in here before December 8th to receive full consideration, but those uploaded later will also be considered until positions are filled.

Funding:

The position is financed by the State Agency for Research of the Spanish Ministry of Science and Innovation through the "Unit of Excellence María de Maeztu 2020-2023" award to the Institute of Cosmos Sciences (CEX2019-000918-M).

The <u>Unit of Excellence Maria de Maeztu</u> recognition has been awarded by the Spanish Government in 2020 for the second time to the ICCUB, as a center with a highly competitive strategic research programmes in the frontiers of knowledge.