

**Company
Description**

BCAM is the Research Center on Applied Mathematics created with the support of the Basque Government and the University of the Basque Country, which aims to strengthen the Basque science and technology system, by performing interdisciplinary research in the frontiers of mathematics, talented scientists' training and attraction, so the excellence of our results are recognized by the Society

Information

 Deadline: 2022-01-24
 Category: Academia
 Province: Bizkaia

 Country: Basque Country
 City: Bilbao

Company

BCAM

**Main functions, requisites & benefits****Main functions**

Basque Center for Applied Mathematics – BCAM offers a postdoctoral position in the framework of Ikur strategy to work in the Bloch representation and correlations in finite-dimensional multi-party quantum systems at Quantum Mechanics group. Pi in charge: Jean-Bernard Bru (BCAM); Jens Siewert (UPV/EHU)

Requisites

Applicants must have their PhD completed before the contract starts Skills: Good interpersonal skills. A proven track record in high-quality research, as evidenced by research publications in top scientific journals and conferences. Demonstrated ability to work independently and as part of a collaborative research team. Ability to present and publish research outcomes in spoken (talks) and written (papers) form. Ability to effectively communicate and present research ideas to researchers and stakeholders with different backgrounds. Fluency in spoken and written English The preferred candidate will have: Strong background in quantum mechanics and quantum information. Strong background in mathematics / linear algebra / matrix analysis / convex analysis / inequalities. Knowledge of the Bloch representation of quantum states and geometrical aspects of the quantum-mechanical state space in general; characterization of correlations in quantum information and beyond. Knowledge of the theory of entanglement (bipartite and multipartite), other theories for quantum resources and familiarity with aspects of quantum error correcting codes and/or other protocols in quantum information. Familiarity with quantum optics is welcome. Good programming skills in Mathematica and/or MatLab, Python

Benefits

The gross annual salary of the Fellowship will be 28.000 - 32.000€. It will then be your own responsibility to file your income tax return with the Bizkaia Treasury Agency every year. There is a moving allowance for those researchers who come from a research institution outside the Basque Country up to EUR 2.000 gross. Free access to the Public Health System in Spain is provided to all employees.