The Basque Center for Applied Mathematics is launching one PhD position of 2 years, to work in the area of Quantum Computation.

We offer a PhD position on Quantum Computing supervised by Dr. Mikel Sanz (BCAM) and associated to a project STACQ funded by the IKUR strategy.

The student will work on the development of new quantum algorithms inspired by digital-analog quantum computing, with applications especially in the field of quantum machine learning, including the use of machine learning and quantum control techniques applied to quantum technologies. The work will be carried out in collaboration with the groups of Prof. Xi Chen at the University of the Basque Country (UPV/EHU) and Prof. Román Orús at the Donostia International Physics Center (DIPC).

The position is for a PhD contract of two years at the Basque Center of Applied Mathematics.

PIs in charge: Dr. Mikel Sanz

Salary and conditions: The gross annual salary of the PhD student will be: 19,764 € - 24,349 € according to experience.

*It will then be on your own responsibility to make your yearly income declaration at the Bizkaia Treasury Agency.*

Additionally, we offer a moving allowance up to 500€.

Should the researcher have a family at the time of recruitment:
IC2024_02_03 BCAM
International Call

1. 1,000€ gross in a single payment will be offered (you must be married-official register or with children and the certificate to prove it must be sent).
2. 600€ gross per year/per child (up to 2 children) will be offered (the certificate to prove it must be sent).

Free access to the Public Health System in Spain is provided to all employees.

<table>
<thead>
<tr>
<th>Nº Positions offered</th>
<th>1</th>
</tr>
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<tbody>
<tr>
<td>Contract and offer</td>
<td>2 years</td>
</tr>
<tr>
<td>Deadline</td>
<td>March 15th, 2024, 14:00 CET (UTC+1)</td>
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<tr>
<td>How to apply</td>
<td>Applications must be submitted on-line at: <a href="https://joboffers.bcamath.org">https://joboffers.bcamath.org</a></td>
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</table>

### Scientific Profile Requested

| Requirements                  | Degree in Physics, Mathematics or related fields.  
|--------------------------------| Master in Quantum Technologies or similar. 
|                                | The candidate must hold the degree as soon as possible. |

| Skills and track-record       | Fluency in spoken and written English.  
|--------------------------------| Ability to present and publish research outcomes in spoken (talks) and written (papers) form.  
|                                | Good interpersonal skills and ability to work as a part of a collaborative research team.  
|                                | Ability to communicate with other research groups and with experimentalists. |

| Scientific Profile            | In the selection procedure we will appreciate:  
|--------------------------------| Strong background in quantum physics, preferably, in quantum computing or quantum information.  
|                                | Ideally with a previous knowledge about quantum computing  
|                                | Programming skills will be positively evaluated. |
## Application and Selection Process

| **Formal Requirements:** | The selected candidate must have applied before the application deadline online at the webpage: [https://joboffers.bcamath.org](https://joboffers.bcamath.org)  
The candidates that do not fulfil the mandatory requirements will not be evaluated with respect to their scientific profile. |
|--------------------------|---------------------------------------------------------------------------------------------------|
| **Application:**         | **Required documents:**  
  - CV  
  - Letter of interest  
  - 2 recommendation letters  
  - Statement of past and proposed future research (2-3 pages) |
| **Evaluation:**          | Based on the provided application documents of each candidate, the evaluation committee will evaluate qualitatively: the adaption of the previous training and career to the profile offered, the recommendation letters, the main results achieved (papers, proceedings, etc.), the statement of past and proposed future research and other merits; taking in account the alignment of these items to the topic offered. |

**Incorporation:** April 2024