The Basque Center for Applied Mathematics is launching one Postdoctoral position of 1 year, to work in the area of Quantum Optics in the group of Dr. Mikel Sanz at BCAM.

The researcher will work on the development of novel strategies for modeling, controlling and manipulating guided quantum light fields in anti-resonant fibers in the group of Dr. Mikel Sanz at BCAM (theory) and in very close collaboration with the experimental group of Dr. David Novoa at the University of the Basque Country (UPV/EHU).

We are looking for a promising researcher, who will expectably be a theoretician in quantum optics and light-matter interaction with background and interest in interacting with experimental science, who has the PhD degree preferable in Photonics, Light-matter interaction or Quantum Optics, or related topics. Also, experience related to the research interests of the group Quantum Mechanics (QM), will be taken into account. The project is funded by IKUR project.

The Researcher will work on modeling the interaction of light fields with molecules in sophisticated fiber-based arrangements and developing techniques aimed at tailoring the properties of the guided light fields employed to design quantum communication and metrology protocols.

The position is for a postdoctoral contract of one year (renewable depending on evaluation) at the Basque Center of Applied Mathematics, under the supervision of Dr Mikel Sanz.
**PIs in charge:**
Dr. Mikel Sanz

**Salary and conditions:**

The gross annual salary of the Fellowship will be: **29.994€ - 36.420€** 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 2.000€.

Should the researcher have a family at the time of recruitment:

1. 2.000€ 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. 1.200€ 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.*

**Nº Positions offered:**

1

**Contract and offer:**

1 (extendable upon evaluation of the performance and continuation of the project)

**Deadline:**

**July 19th, 2024, 14:00 CET (UTC+1)**

**How to apply:**

Applications must be submitted on-line at:

[https://joboffers.bcamath.org](https://joboffers.bcamath.org)

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**Scientific Profile Requested**

**Requirements:**

- Degree in Physics, Electronic or Telecommunications Engineering, or related fields.
**IC2024_07_01 BCAM International Call**

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| **Skills and track-record:** | • Good command of the English language, both written and spoken  
• Ability to disseminate research outcomes in both spoken (talks) and written (papers) form  
• A strong track record with research publications in top-ranked scientific journals and conferences  
• Good interpersonal skills and ability to work as part of a collaborative & interdisciplinary research team.  
• Desirable experience working in the framework of international research projects. |
| **Scientific Profile:** | In the selection procedure we will appreciate:  
• Desirable experience in quantum optics, photonics, light-matter interaction, and related quantum technologies.  
• Interest and disposition to work in interdisciplinary groups.  
• Desirable international experience. |

### Application and Selection Process

| **Formal Requirements:** | The selected candidate must have applied before the application deadline online at the webpage:  
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: | August 2024 |