

Phd Position in Harmonic Analysis

Job Offer

Topics:

The Basque Center for Applied Mathematics is launching one PhD position of 4 years, to work in Discrete mathematics, Fourier analysis and functional inequalities.

We offer a Phd position to work on different aspects of discrete mathematics, Fourier analysis and functional inequalities. The candidate will be supervised by Dr. Mateus Costa de Sousa and Dr. Luz Roncal.

The student will work on theoretical study of structural properties of objects arising in quantum physics with a Fourier analysis approach.

The position is for a PhD contract of four years at the Basque Center of Applied Mathematics, funded by AEI through AEI through the project "Optimality in Harmonic Analysis and Related Areas" PID2023-146646NB-I00."

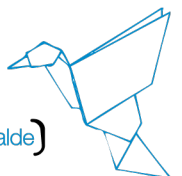
The Basque Center for Applied Mathematics - BCAM, offers a 4-year Phd position to work in topics in harmonic analysis and related areas.

The future PhD student will join the Harmonic Analysis and Inverse Problems line at BCAM, funded by a FPI Scholarship under the project PID2023-146646NB-I00 "Optimality in Harmonic Analysis and Related Areas".

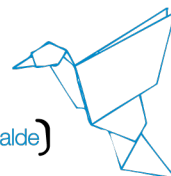
The candidate supervisor will be Dr. Mateus Sousa, and the core topics of the thesis are expected to revolve around:

- Sharp inequalities
- Uncertainty principles and unique continuation
- Fourier interpolation
- Fourier optimization problems.

The candidate will also have the opportunity to interact and work with other researchers, and will be part of a research

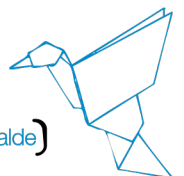


	<p>group with a good balance of younger and more established researchers with a vast collective range of interests in mathematical analysis and related areas, and counts with a large network of collaborators spread across different countries.</p> <p>The group also cultivates strong ties with professors from the University of the Basque Country (UPV/EHU), especially the ones which are part of the mathematical analysis and applications research group.</p>
PIs in charge:	Dr. Luz Roncal and Mateus Costa de Sousa
Salary and conditions:	<p>The gross annual salary of the PhD student will be: 19.764 € - 24.349 € according to experience.</p> <p><i>It will then be on your own responsibility to make your yearly income declaration at the Bizkaia Treasury Agency.</i></p> <p>Additionally, we offer a moving allowance up to 500€.</p> <p>Should the researcher have a family at the time of recruitment:</p> <ol style="list-style-type: none"> 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). <p><i>Free access to the Public Health System in Spain is provided to all employees.</i></p>
Nº Positions offered:	1
Contract and offer:	4 years
Deadline:	September 20th, 2024, 14:00 CET (UTC+1)
How to apply:	Applications must be submitted on-line at: https://joboffers.bcamath.org



Scientific Profile Requested	
Requirements:	<ul style="list-style-type: none"> • Possession of a master's degree in mathematics or equivalent by the incorporation date.
Skills and track-record:	<ul style="list-style-type: none"> • Good interpersonal skills. • Fluency in spoken and written English. • 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.
Scientific Profile:	<p>In the selection procedure we will appreciate:</p> <ul style="list-style-type: none"> • Solid background in real, complex, and functional analysis. • Interest in harmonic analysis and its connections to other areas such as PDEs, approximation theory and number theory.

Application and Selection Process	
Formal Requirements:	<p>The selected candidate must have applied before the application deadline online at the webpage: https://joboffers.bcamath.org</p> <p>The candidates that do not fulfil the mandatory requirements will not be evaluated with respect to their scientific profile.</p>
Application:	<p>Required documents:</p> <ul style="list-style-type: none"> ▪ CV ▪ Letter of interest ▪ 2 recommendation letters ▪ Statement of past and proposed future research (2-3 pages)
Evaluation:	<p>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</p>



	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.
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Incorporation:	1st January 2025
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