basque center for applied mathematics

EXCELENCIA SEVERO OCHOA

IC2026_07_06 BCAM International Call

Ph.D. position in theoretical analysis of PDE

Job Offer	
Offer	The Basque Center for Applied Mathematics is launching a 4-year fellowship to prepare a Ph.D. thesis in the **theoretical analysis of partial differential equations**, under the supervision of **Dr. Francesco Fanelli.** The selected candidate will mainly work on the theoretical analysis of systems of partial differential equations modelling the dynamics of fluids. The candidate will be formed on several aspects of the study of partial differential equations: study of well-posedness, qualitative properties of the solutions, asymptotic analysis and singular limit problems. He/she will employ techniques from harmonic analysis and Fourier analysis, functional analysis, distribution theory. The selected candidate will be part of the APDE - "Analysis of Partial Differential Equations" research area at BCAM, a dynamic group of senior and junior researchers with a vast range of interests in mathematical analysis and related fields and counting with a large international network of collaborators. This research group has also strong interactions with the homologous groups working at the Department of Mathematics of the University of the Basque Country (EHU, Bilbao) and at the University of Cantabria (UC, Santander). The candidate will be encouraged to interact with the other researchers of the area, and also to regularly participate in the research activities of the area, like seminars and courses. The candidate will be encouraged to attend research conferences and, whenever it is possible, to present the obtained results. It is also expected that the candidate will make one or more short research stays in international research centers or universities. The candidate will enroll in the Doctoral Program in Mathematics and Statistics of the University of the Basque Country (UPV/EHU), which upon completion of a PhD thesis will grant the corresponding PhD degree.
PI in charge:	Dr. Francesco Fanelli

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Salary and conditions:	**The gross annual salary of the PhD student will be 25.456 €.** *It will be your responsibility to file your annual income tax return with the Bizkaia Treasure Agency.* Additionally, we offer a moving allowance of up to 500€. Should the researcher have a family at the time of recruitment: 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.*
Nº Positions offered:	**1**
Duration of contract:	**4 years**
Deadline:	**September 20th, 2026, 14:00 CET (UTC+1)**
How to apply:	Applications must be submitted online at: https://joboffers.bcamath.org

Scientific Profile Requested	
Mandatory requirements:	The potential candidate must possess a Bachelor degree and a Master degree on Pure Mathematics or Applied Mathematics.
Scientific profile:	He/she must have a strong background on: • Pure Mathematics, with a special focus on Calculus and related subjects of Mathematical Analysis. • Functional Analysis and Distribution Theory. • Some basic knowledge on ordinary and partial differential equations will be highly appreciated.
Skills and track-record:	• Fluency in spoken and written English. • Ability to work both independently and as part of a collaborative research team.

	• Ability to present and publish research outcomes, both in oral form (seminar and conference talks) and written form (research articles). • Ability to effectively communicate and present research ideas to researchers and stakeholders with different backgrounds. • Good interpersonal skills.

Application and Selection Process	
Formal requirements:	The selected candidate must apply before the deadline online at: https://joboffers.bcamath.org The candidates that do not fulfil the mandatory requirements will not be evaluated.
Application:	Required documents: ▪ CV and academic record ▪ Letter of interest, including research interests ▪ 2 recommendation letters
Evaluation:	Based on the documents provided by each candidate, the committee will qualitatively evaluate: • alignment of the training and career of the candidate to the position offered • recommendation letters • letter of interest • other academic and scientific merits

Date of start:	1st January 2027

AGENCIA ESTATAL DE INVESTIGACIÓN

This Ph.D. position is funded by the AEI project PID2025-169177NB-I00 "Mathematical analysis of fluid motion: Geometry, Heterogeneities, Oddity, Scales and Turbulence" (GHOST).