Research Technician/PhD student in Bayesian inverse problems in brain simulation

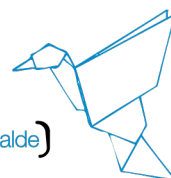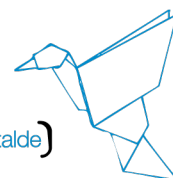| Job Offer	
Topics:	**BCAM, the Basque Center for Applied Mathematics is hiring a Research Technician/PhD student in Computational and Applied Mathematics to join the Mathematical Design, Modelling and Simulations (MATHDES) group, and work under the supervision of:** • **Matteo Croci.** Google Scholar: https://scholar.google.com/citations?user=AmQKnwcAAAAJ&hl=en CV: https://croci.github.io/CurriculumVitaeWebsite.pdf • **Judit Muñoz-Matute**. Google Scholar: https://scholar.google.com/citations?user=-cvJu50AAAAJ&hl=en CV: https://sites.google.com/view/judit-munoz-matute/home?authuser=0 The position is funded by the Spanish Ministry for Science and Innovation. We are searching for a promising pre-doctoral researcher who is eager to kickstart their career as a researcher. We especially welcome candidates from under-represented backgrounds. The objective of the research project is to perform Bayesian inversion to characterise the velocity field of 3D partial differential equations describing brain fluid and solute movement. The candidate will be free to choose how to focus their efforts within this goal, whether in terms of theoretical, methodological, or applied research contributions. The proposed research will involve: • Bayesian inference and/or Monte Carlo methods. • The numerical solution of partial differential equations. The initial contract duration will be of 1 year with ample possibilities for renewal. Our hope is to later on incorporate the research technician within BCAM's doctoral programme, subject to satisfactory performance. Starting date is: ideally as soon as possible, but lots of flexibility on this.

PIs in charge:	Dr. Matteo Croci an Dr. Judit Muñoz Matute
Salary and conditions:	**The gross annual salary of the Fellowship will be 20.258€-30.744€** 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 1.000€. Should the researcher have a family at the time of recruitment: a) 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). b) 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**
Contract and offer:	**1 year**
Deadline:	**November 17th, 2025, 14:00 CET (UTC+1)**
How to apply:	Applications must be submitted on-line at: https://joboffers.bcamath.org

Scientific Profile Requested	
Requirements:	• Promising young researchers • Master's degree in mathematics, Statistics, Computer Science, or Engineering (which must be obtained before the position start date).
Skills and track-record:	Although the requirements can be adapted to the different candidate profiles, a strong candidate needs to possess the following skills: • Good interpersonal skills. • Good English language skills (oral and written).

Scientific Profile:	A successful candidate will have: • Some coding experience. • Some undergraduate-level knowledge of the basics required for the topic(s) of interest. E.g., numerical solution of PDEs and basic probability.

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 • Academic record including undergraduate and master-level courses attended, grades, and average/final degree grade. Please upload this under "Interest letter" or "Academic record". • 2 references • The other documents requested by the application form are optional and can be left blank.
Evaluation:	The evaluation process will consider the applicant's academic background, research experience, references, and technical skills, with particular attention to how these align with the objectives and scope of the proposed research project. We will assess the candidate's potential to contribute to the group's ongoing work as well as their motivation and suitability for the specific challenges of the position

Incorporation:	**As soon as possible, ideally on December 1, 2025**